

Study of Non Performing Financing in Islamic Bank: The Role of Internal and External Ratio

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Abstract:

This study aims to analyze financing problems in Islamic banks, namely Bank Muamalat Indonesia, which has a tendency of increasing financing problem. This situation is reviewed from the internal indicators of Islamic Banks, namely the Minimum Capital Adequacy Requirement, Financing to Deposit Ratio, Return on Assets, Operational Costs to Operating Income and indicators of external conditions in the form of Inflation, and Exchange Rates. This study uses a quantitative approach, precisely the associative research. The secondary data were collected from 36 samples, taken from the 2013-2021 data of Bank Muamalat Indonesia. The sampling technique uses a saturated sample. The multiple linear regression analysis was applied. The results show that, internal indicators, namely the Minimum Capital Adequacy Requirement, have no significant negative effect on Non-Performing Financing; Financing to Deposit Ratio has a significant positive effect on Non Performing Financing; Return on Assets has a significant negative effect on Non Performing Financing and Efficiency Ratio/BOPO has an insignificant negative effect on Non Performing Financing. External indicators include inflation but no significant negative effect on non-performing financing; Exchange Rate has no significant positive effect on Non Performing Financing. The practical implications of this research are the internal indicators to watch out for, namely the availability of capital, while the external indicators are the exchange rate so that it is significant in reducing problem financing.

Keywords: Non Performing Financing, Internal indicator, External Indicator

Introduction

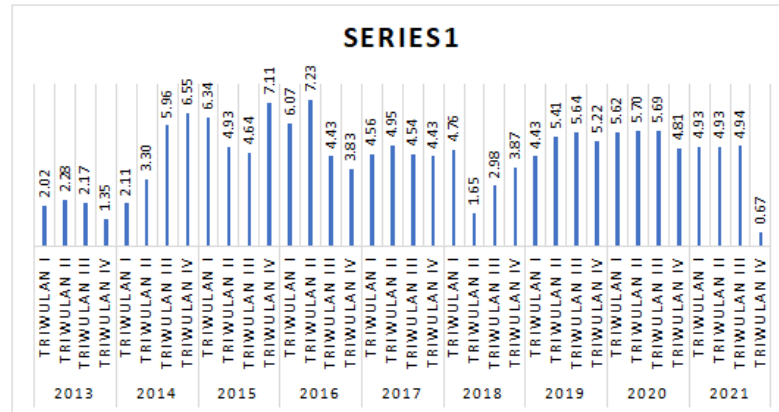
Non Performing Financing (NPF) is a risk that is taken into account by Islamic banks. No doubt the study of NPF continues to develop from various perspectives. NPF contributes to the profitability of Islamic banks¹ and has an impact on the sustainability of Islamic banking businesses.² Assets managed by the bank cannot be

¹ Muksal, "The Impact of Non-Performing Financing (NPF) to Profitability (Return On Equity) at Sharia Bank in Indonesia," *European Journal of Islamic Finance* 0, no. 11 (2018): 1–6.

² Jaenal Effendi, Usy Thiarany, and Tita Nursyamsiah, "Factors Influencing Non-Performing Financing (NPF) at Sharia Banking," *Walisongo: Jurnal Penelitian Sosial Keagamaan* 25, no. 1 (2017): 109, <https://doi.org/10.21580/ws.25.1.1540>.

rotated to contribute to other communities. As a result, an NPF ratio that is too high indicates that the bank's performance in managing troubled financing is less professional. Bank Indonesia as the central bank has set a good bank's NPF ratio of less than 5%. Bank Muamalat Indonesia as the first sharia bank has experienced financing above the limit set by Bank Indonesia. Graph 1 is the development of Bank Muamalat Indonesia's Non-Performing Financing ratio for the 2013-2021 period

Graph 1. Bank Muamalat Indonesia's NPF Ratio for the 2013-2021 Period (%)



Source: Bank Muamalat Indonesia Quarterly Financial Report 2013-2021

The NPF ratio of Bank Muamalat Indonesia in 2013-2021 was fluctuated. The NPF ratio in 2013 to 2014 showed an increase which exceeded BI regulations, namely 5.96% in the third quarter and 6.55% in the fourth quarter. Bank Muamalat Indonesia's NPF ratio in 2015 showed its highest level of 7.11% in the fourth quarter. In the 2013-2021 period, the highest NPF ratio was in 2016 in the second quarter (7.23%) while the lowest NPF ratio occurred in 2021 in the fourth quarter (0.67%).

The cause of Bank Muamalat Indonesia's high NPF ratio was the lack of careful management of the bank in channeling its funds and there were several products that have a relatively high risk for the bank. If a bank's NPF ratio is too high and exceeds the limit set by Bank Indonesia, it can cause serious problems for the bank. This is because Islamic banks still gain profits from their financing activities, so it is important for banks to manage their financing activities properly. The increase or decrease in the level of NPF in a bank is definitely inseparable from both internal and external factors of the Islamic bank itself. Yuniarti et al. states, the ratio of Non-Performing Financing (NPF) of Islamic banks can be influenced by internal bank factors and external factors, namely macroeconomic conditions³. These factors need to be studied so that banks are able to reduce the amount of non-performing financing. Asiyah et al.⁴ in their research on the determinants of problem financing at Bank Muamalat Indonesia by reviewing the same external side, and internally in the form of CAR, BOPO and FDR, resulted that CAR has a significant negative

³ Nensi Yuniarti Zs, Budi Astuti, and Furqonti Ranidiah, "Faktor-Faktor Yang Mempengaruhi Non Performing Financing (NPF) Pada Bank Umum Syariah Yang Terdaftar Di Otoritas Jasa Keuangan (OJK) Periode 2015-2019," *Jurnal Ekombis Review: Jurnal Ilmiah Ekonomi Dan Bisnis* 10, no. 1 (2022): 384–96, <https://doi.org/10.37676/ekombis.v10i1.1531>.

⁴ Binti Nur Asiyah, Ayuk Septiana, and Amin Wahyudi, "Determinants of Bank Mu'amalat Indonesia's Non-Performing Financing: Internal and External Reviews," *El-Qish: Journal of Islamic Economics* 2, no. 2 (2022): 97–112, <https://doi.org/10.33830/elqish.v2i2.4157.2022>.

effect on problem financing, BOPO has a significant positive effect on problem financing. FDR has a negative effect but not significant to non-performing financing, inflation and exchange rates have no significant effect on non-performing financing. On the basis of this research, the researcher intends to add the variable Return on Assets as an internal variable, with the hope of being able to take a more in-depth picture of the determinants of problem financing.

This study uses the research object of Bank Muamalat Indonesia because the level of the NPF ratio is still unstable and several times is above the provisions of BI. As happened in 2013-2015 and 2019. This research was conducted in 2013-2021. The researchers used the 2013 data was because there was an increase in the Bank Muamalat Indonesia NPF ratio and received a warning for being in an unhealthy conditions. During the 2013-2021 period the bank's internal independent variables used in the study, namely Minimum Capital Adequacy Requirement, Financing to Deposit Ratio, Return on Assets, and Operational Costs to Operating Income were also in a fluctuating and unstable condition. While the independent variables are from external banks, researchers use the Rupiah exchange rate against the US Dollar and inflation because in 2013 the Rupiah-Dollar exchange rate experienced a sharp increase as well as the inflation rate in Indonesia.

The purpose of this study is to examine the significant effect of the Minimum Capital Adequacy Requirement, Financing to Deposit Ratio, Return on Assets, Operating Costs on Operating Income, Inflation, and Exchange Rate on Non-Performing Financing at Bank Muamalat Indonesia for the 2013-2021 period both partially and simultaneously.

Literature Review

a. Non Performing Financing

Non Performing Financing (NPF) or troubled financing is a condition in which the customer is unable to pay part or all of his obligations to the bank according to the time and tempo that has been agreed upon and agreed beforehand.⁵ Banks that distribute financing and do not pay attention to the principles of financing can pose risks that result in problematic financing. In general, indicators that can cause a high ratio of problem financing or Non-Performing Financing are from both internal and external banks.⁶

b. Minimum Capital Adequacy Requirement

Minimum Capital Adequacy Requirement (KPMM) is an indicator of a bank's ability to cover the decline in its assets which is the result of bank losses caused by risky assets.⁷ This ratio is used to measure the capital adequacy of Islamic banks. In Siamat's opinion, KPMM has an influence on non-performing bank financing.⁸ A decrease in bank capital adequacy and an increase in the level of risky assets can cause a decrease in the CAR. Decreased capital adequacy causes the bank's ability to minimize financing risk to become smaller, as a result the potential for problematic financing that occurs in banks will be higher so that the bank's NPF value increases

⁵ (Supramono, 2014; h.268)

⁶ (Djamil, 2012, h.73)

⁷ (Dendawijaya, 2009a,h.117)

⁸ (Siamat, 2005b, h. 287)

c. Financing to Deposit Ratio

The Financing to Deposit Ratio (FDR) is a ratio used to measure the effectiveness of financing channeled by Islamic banks. If the FDR increases, the bank's profit will also increase so that the financing is assumed to have been channeled effectively.⁹ According to Hariyani, the FDR ratio affects the profitability of Islamic banks through the distribution of financing. A high FDR ratio means that the investment of bank third party funds in the form of financing is also getting bigger, so a high FDR ratio indicates that more bank financing is also being provided to customers. Meanwhile, the higher the disbursement of financing, the higher the risk of problematic financing due to the greater potential for uncontrolled financing.¹⁰

d. Return on Asset

Return on Assets (ROA) is an indicator to measure a bank's performance in generating profits by managing its assets.¹¹ The greater the ROA gives an indication, the better the bank performance is because the rate of return (profit) is getting bigger. Horne and Wachowicz stated that ROA is a measure of a bank's effectiveness in generating profits from its assets, so that if a bank's ROA is greater, it means that the level of profit achieved by the bank is also greater.¹² Increasing bank profits will increase bank capital so that the level of bank capital adequacy will be better. When the level of capital adequacy is getting better, it means that the bank's ability to minimize the level of risk is also getting better. One of these risks comes from financing risk, so a higher ROA can reduce the NPF level.

e. Operational Efficiency Ratio

Operational Efficiency Ratio or BOPO is a ratio used to measure the level of efficiency and ability of a bank to carry out its operational activities. The smaller the BOPO, the more efficient the operational costs incurred by the bank and vice versa.¹³ According to Dendawijaya, the BOPO ratio has an influence on the troubled state of banks, one of which is caused by financing problems.¹⁴ The more efficient BOPO is, the profit earned by the bank will increase and vice versa, because BOPO is related to expenses which are a profit-deductible component. The increased profit earned by the bank can ultimately increase the bank's capital. If the bank's capital adequacy level is getting better, it can bear the risks of financing, namely non-performing financing.

f. Inflation

Inflation is a condition where the value of a currency decreases due to rising prices of goods over a period of more than one month.¹⁵ In the event of inflation,

⁹ (Dendawijaya, 2009b, h.116)

¹⁰ (Hariyani, 2010, h.57)

¹¹ (Hutabarat, 2020, h.82)

¹² (J. C. V. Horne & Wachowich, 2005, h.235)

¹³ (Dendawijaya, 2009a, h.119)

¹⁴ (Dendawijaya, 2009a, h.120)

¹⁵ (Aji & Mukri, 2020, h.65)

customers will experience difficulties in repaying their financing facilities because it is possible that part of their income has been used to meet household needs. According to Nopirin, inflation will affect economic activity both at the macro and micro levels. When inflation occurs, public spending (debtors) tends to increase due to rising prices of necessities so that their ability to pay back loans to banks also decreases. An increase in inflation can cause installment payments to become increasingly imprecise, causing the quality of financing to get worse and even to become problematic financing.¹⁶

g. Exchange Rate

Exchange Rate is the price or value of a country's currency expressed in the value of another country's currency.¹⁷ Changes in currency exchange rates can affect banks because currency exchange rates fluctuate so that they have a fairly high risk. According to Kuncoro, one of the causes of the crisis came from the exchange rate because when a crisis occurs it causes the outflow of foreign capital due to speculative investors, which causes the value of the domestic currency to depreciate. This depreciation of the exchange rate eventually causes an increase in production costs due to increased import financing, which will make it difficult to repay customer loans to banks. This is because, for customers whose businesses use imported raw materials, their profitability and income will be affected, making it difficult for customers to pay loan installments to banks in a timely manner, causing an increase in the bank's NPF value.¹⁸

Research Methods

This research uses a quantitative approach with an associative type. In the context of this study, the sampling technique used was side saturation. The sample used is 36 data, originating from Bank Muamalat Indonesia's quarterly financial reports which have been published for the period 2013-2021 for the variables Minimum Capital Adequacy Requirement, Financing to Deposit Ratio, Return on Assets, BOPO, and Non-Performing Financing. Meanwhile, the Inflation and Exchange Rate data, the researchers used the report from the Central Bureau of Statistics which have been published for the 2013-2021 period processed into quarterly data. The type of data in this study is secondary data obtained through indirect observation. Data analysis methods in this study used multiple linear regression analysis with the help of IBM SPSS Statistics 25 software. The data was first tested with descriptive statistics and classical assumption tests as prerequisites that must be met before conducting multiple linear regression tests. Furthermore, hypothesis testing was carried out to see the effect of the independent variables on the dependent variable partially and simultaneously.

Results and Discussion

A. Descriptive Statistical Analysis

Table 1 presents the results of descriptive statistical tests for each research variable:

¹⁶ (Nopirin, 2016, h.32)

¹⁷ (Rahman, 2021, h.349)

¹⁸ (Kuncoro & Suhardjono, 2002b, h.42)

Table 1. Descriptive Statistical Analysis

| | N | Minimum | Maximum | Mean | Std. Deviation |
|--------------------|----|----------|----------|------------|----------------|
| Internal Ratio | | | | | |
| KPMM | 36 | 10.16 | 23.76 | 13.7353 | 2.40492 |
| FDR | 36 | 38.33 | 106.50 | 84.6464 | 15.31426 |
| ROA | 36 | 0.02 | 1.72 | 0.3753 | 0.53567 |
| BOPO | 36 | 64.81 | 99.50 | 94.5781 | 7.36993 |
| External Ratio | | | | | |
| Inflasi | 36 | 0.39 | 2.28 | 1.0008 | 0.61719 |
| Exchange_Rate | 36 | 12111.00 | 14550.00 | 13573.8056 | 762.33457 |
| NPF | 36 | 0.67 | 7.23 | 4.4458 | 1.63694 |
| Valid N (listwise) | 36 | | | | |

Source: Data processed from IBM SPSS Statistics 25

Based on table 1, in the period 2013-2021 the KPMM variable had the highest value of 23.76% and the lowest value of 10.16% with an average value of 13.74%. The FDR variable has the highest value of 106.50% and the lowest value of 38.33% with an average value of 84.65%. The ROA variable has the highest value of 1.72% and the lowest value of 0.02% with an average value of 0.38%. The BOPO variable has the highest value of 99.50% and the lowest value of 64.81% with an average value of 94.58%. The inflation variable has the highest value of 2.28% and the lowest value of 0.39% with an average value of 1%. The exchange rate variable has the highest value of Rp. 14,550 and the lowest value of Rp. 12,111 with an average value of Rp. 13,574. The NPF variable has the highest value of 7.23% and the lowest value of 0.67% with an average value of 4.45%.

B. Classic Assumption Test

1. Normality Test

Table 2 presents the results of the data normality test using the Kolmogorov-Smirnov method.

Table 2. Data Normality Test Results

| | | Unstandardized Residual |
|----------------------------------|----------------|-------------------------|
| N | | 36 |
| Normal Parameters ^{a,b} | Mean | ,0000000 |
| | Std. Deviation | ,21916864 |
| Most Extreme Differences | Absolute | ,077 |
| | Positive | ,068 |
| | Negative | -,077 |
| Test Statistic | | ,102 |
| Asymp. Sig. (2-tailed) | | ,200 ^{c,d} |

^a Test distribution is Normal.

^b Calculated from data.

^c Lilliefors Significance Correction.

^d This is a lower bound of the true significance.

Source: Data processed from IBM SPSS Statistics 25

Based on table 2, it can be concluded that the data is normally distributed

because the Asymp. Sig. (2-tailed) is greater than the significance level of 0.05, so the result is ($0.200 > 0.05$) which means that the assumption of normality has been met.

2. Multicollinearity Test

Table 3 presents the results of the data multicollinearity test by looking at the tolerance and VIF values.

Table 3. Multicollinearity Test Results

| Coefficients ^a | | | | | | | | |
|---------------------------|---------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. | Collinearity Statistics | |
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 8,654 | 4,211 | | 2,055 | ,049 | | |
| | KPMM | -,166 | ,095 | -,244 | -1,752 | ,090 | ,596 | 1,678 |
| | FDR | ,046 | ,020 | ,432 | 2,325 | ,027 | ,336 | 2,978 |
| | ROA | -3,029 | ,643 | -,991 | -4,711 | ,000 | ,262 | 3,820 |
| | BOPO | -,049 | ,038 | -,221 | -1,296 | ,205 | ,400 | 2,499 |
| | INFLASI | -,134 | ,637 | -,050 | -,210 | ,835 | ,201 | 4,970 |
| | EXCHANGE_RATE | ,053 | ,087 | ,075 | ,611 | ,546 | ,770 | 1,299 |
| | | | | | | | | |

^a Dependent Variable: NPF

Source: Data processed from IBM SPSS Statistics 25

Based on table 3, the tolerance value of each independent variable is greater than 0.10 and seen from the VIF value of each independent variable is less than 10 so it can be concluded that between the independent variables there is no multicollinearity.

3. Heteroscedasticity Test

Table 4 presents the results of the data heteroscedasticity test using the Glejser test.

Table 4. Heteroscedasticity Test Results

| Coefficients ^a | | | | | |
|---------------------------|---------------|-----------------------------|------------|---------------------------|--------|
| | | Unstandardized Coefficients | | Standardized Coefficients | |
| Model | | B | Std. Error | Beta | t |
| 1 | (Constant) | -1,196 | 2,039 | | -,587 |
| | KPMM | ,053 | ,046 | ,243 | 1,145 |
| | FDR | ,017 | ,010 | ,493 | 1,745 |
| | ROA | -,017 | ,311 | -,017 | -,055 |
| | BOPO | ,004 | ,018 | ,057 | ,219 |
| | INFLASI | -,570 | ,308 | -,675 | -1,849 |
| | EXCHANGE_RATE | ,025 | ,042 | ,109 | ,583 |
| | | | | | |

^a Dependent Variable: Abs_Res

Source: Data processed from IBM SPSS Statistics 25

Based on table 4, the significance value of each independent variable is greater than 0.05 so that the data in this study do not show symptoms of heteroscedasticity.

4. Autocorrelation Test

Table 5 presents the results of the data autocorrelation test using the Durbin Watson (D-W) test.

Table 5. Autocorrelation Test Results

| Model Summary ^b | | | | | |
|----------------------------|-------------------|----------|-------------------|----------------------------|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 1 | ,815 ^a | ,664 | ,594 | 1,04271 | ,991 |

^a Predictors: (Constant), EXCHANGE_RATE, KPMM, BOPO, FDR, ROA, INFLASI

^b Dependent Variable: NPF

Source: Data processed from IBM SPSS Statistics 25

Based on table 5, the Model Summary shows a value of 0.991. This value is between -2 to +2 ($-2 < 0.991 < +2$), so it can be concluded that there is no autocorrelation.

C. Multiple Linear Regression Test

Multiple linear regression analysis was carried out to determine the direction of influence between two or more independent variables on one dependent variable, whether the direction of the relationship is positive or negative.

Table 6. Multiple Linear Regression Test Results

| Coefficients ^a | | | | | | |
|---------------------------|-----------------------------|------------|-------|---------------------------|--------|------|
| Model | Unstandardized Coefficients | | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | | |
| 1 | (Constant) | 8,654 | 4,211 | | 2,055 | ,049 |
| | KPMM | -,166 | ,095 | -,244 | -1,752 | ,090 |
| | FDR | ,046 | ,020 | ,432 | 2,325 | ,027 |
| | ROA | -3,029 | ,643 | -,991 | -4,711 | ,000 |
| | BOPO | -,049 | ,038 | -,221 | -1,296 | ,205 |
| | INFLASI | -,134 | ,637 | -,050 | -,210 | ,835 |
| | EXCHANGE_RATE | ,053 | ,087 | ,075 | ,611 | ,546 |

^a Dependent Variable: NPF

Source: Data processed from IBM SPSS Statistics 25

Based on table 6, it can be developed into a regression equation model as follows.

$$\text{NPF} = 8,654 - 0,166\text{KPMM} + 0,046\text{FDR} - 3,029\text{ROA} - 0,049\text{BOPO} - 0,134\text{Inflation} + 0,053\text{Exchange Rate}$$

Information:

1. A constant of 8.654 states that if the value of the independent variables KPMM, FDR, ROA, BOPO, Inflation and Exchange Rate are constant (fixed) then the NPF of Bank Muamalat Indonesia will increase by 8.654 units.
2. The KPMM regression coefficient is -0.166 which means that if the KPMM variable increases by one unit, the NPF variable will decrease by 0.166 units.
3. The FDR regression coefficient of 0.046 means that if the FDR variable increases by one unit, the NPF variable will increase by 0.046 units.
4. The ROA regression coefficient is -3.029 which means that if the ROA variable increases by one unit, the NPF variable will decrease by 3.029 units.
5. The BOPO regression coefficient is -0.049 which means that if the BOPO variable increases by one unit, the NPF variable will decrease by 0.049 units.
6. The inflation regression coefficient is -0.134 which means that if the

inflation variable increases by one unit, the NPF variable will decrease by 0.134 units.

7. The Exchange Rate regression coefficient of 0.053 means that if the Exchange Rate variable increases by one unit, the NPF variable will increase by 0.053 units.

D. Hypothesis Testing

1. T Test (Partial)

The T test was conducted to determine the partial effect of the independent variables on the dependent variable. The basis for making decisions in this T test is by looking at the significant value and the calculated t value. In this study using a significance level of 0.05 and with a t table value of 2.045.

Table 7. T Test Results (Partial)

| Coefficients ^a | | | | | | |
|---------------------------|----------------|-----------------------------|------------|---------------------------|--------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 8,654 | 4,211 | | 2,055 | ,049 |
| | KPMM | -,166 | ,095 | -,244 | -1,752 | ,090 |
| | FDR | ,046 | ,020 | ,432 | 2,325 | ,027 |
| | ROA | -3,029 | ,643 | -,991 | -4,711 | ,000 |
| | BOPO | -,049 | ,038 | -,221 | -1,296 | ,205 |
| | INFLASI | -,134 | ,637 | -,050 | -,210 | ,835 |
| | EXCHANGE_ RATE | ,053 | ,087 | ,075 | ,611 | ,546 |

^a Dependent Variable: NPF

Source: Data processed from IBM SPSS Statistics 25

Table 7 is explained in some points.

- a) Minimum Capital Adequacy Requirement (KPMM)

Judging from the significance value generated on the KPMM variable, namely (0.090 > 0.05) and looking at the value of t count and t table, namely (1.752 < 2.045), it can be concluded that the KPMM variable has a negative and insignificant effect on NPF.

- b) Financing to Deposit Ratio (FDR)

Seen from the significance value generated on the FDR variable of (0.027 < 0.05) and seen from the t count and t table values (2.325 > 2.045), it can be concluded that the FDR variable has a positive and significant effect on NPF.

- c) Return on Assets (ROA)

From the significance value generated on the ROA variable of (0.000 < 0.05) and the t count and t table values (4.711 > 2.045), it can be concluded that the ROA variable has a negative and significant effect on NPF.

- d) Operational Efficiency Ratio (BOPO)

From the significance value generated on the BOPO variable of (0.205 > 0.05) and the calculated t and t table values (1.296 < 2.045), it can be concluded that the BOPO variable has a negative and insignificant effect on NPF.

- e) Inflation

From the significance value generated on the inflation variable is (0.835 > 0.05) and the t count and t table values (0.210 < 2.045), it can be concluded that the inflation variable has a negative and insignificant effect on NPF.

f) Exchange Rates

From the significance value generated on the exchange rate variable is (0.546 > 0.05) and the t count and t table values (0.611 < 2.045), it can be concluded that the exchange rate variable has a positive and insignificant effect on NPF.

2. F Test (Simultaneous)

The F test was carried out to determine the effect simultaneously of the independent variables on the dependent variable. The basis for making decisions in this F test is by looking at the significant value and the calculated f value. In this study using a significance level of 0.05 and with an f table value of 2.43.

Table 8. F Test Results (Simultaneous)

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|----|-------------|-------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 62,254 | 6 | 10,376 | 9,543 | ,000 ^b |
| | Residual | 31,530 | 29 | 1,087 | | |
| | Total | 93,784 | 35 | | | |

^a Dependent Variable: NPF

^b Predictors: (Constant), EXCHANGE_RATE, KPMM, BOPO, FDR, ROA, INFLASI

Source: Data processed from IBM SPSS Statistics 25

Based on table 8, the resulting significance value is (0.000 < 0.05) and seen from the calculated f value (9.543 > 2.43), it can be concluded that the variables KPMM, FDR, ROA, BOPO, Inflation, and the Exchange Rate together have a positive and significant effect on Bank Muamalat Indonesia's NPF.

E. Determination Coefficient Test

The coefficient of determination test was carried out to test how far the proportion of the ability of the independent variable is able to explain the dependent variable.

Table 9. Test Results for the Coefficient of Determination

| Model Summary | | | | |
|---------------|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | ,815 ^a | ,664 | ,594 | 1,04271 |

^a Predictors: (Constant), EXCHANGE_RATE, KPMM, BOPO, FDR, ROA, INFLASI

Source: Data processed from IBM SPSS Statistics 25

Based on table 9, the Adjusted R Square value is 0.594 or 59.4% so that it can be interpreted that the KPMM, FDR, ROA, BOPO, Inflation, and Exchange Rate variables jointly affect the Bank Muamalat Indonesia NPF variable by

59.4% while the remaining 40.6% is explained by other variables not used in this study.

Discussion

a. Effect of Minimum Capital Adequacy Requirement on Non-Performing Financing of Bank Muamalat Indonesia

The results of the study show that the Minimum Capital Adequacy Requirement (KPMM) has a negative and insignificant effect on Bank Muamalat Indonesia's Non Performing Financing (NPF) for the 2013-2021 period. Based on this, every increase and decrease in KPMM will not have an impact on an increase or decrease in NPF. The results of statistical analysis show that Bank Muamalat Indonesia's KPMM for the 2013-2021 period has an average value of 13.74%. This value indicates that a bank's KPMM is still in good condition because based on Bank Indonesia regulations, a bank's KPMM is considered healthy if it is above 8%. This research contradicts the theory expressed by Siamat that a decrease in capital adequacy (KPMM) can cause a bank's ability to minimize financing risk to decrease, resulting in the potential for problematic financing at banks not being resolved, ultimately this condition causes bank NPF to increase.¹⁹ This is due to Bank Muamalat Indonesia's KPMM which is in a healthy condition, namely above 8% so that it has the ability to bear the risk of financing problem. What affects the NPF is the ability of customers to pay their obligations to the bank, while KPMM only covers potential losses due to the risk of non-payment of customer financing. The results of this study are supported by previous research by Tsania et al²⁰, Khatimah dkk²¹, Musdholifah dan Purnamasari²² which stated that KPMM had no significant effect on NPF.

b. The Effect of Financing to Deposit Ratio on Non-Performing Financing of Bank Muamalat Indonesia

The results showed that the Financing to Deposit Ratio (FDR) had a positive and significant effect on Bank Muamalat Indonesia's Non Performing Financing (NPF) for the 2013-2021 period. A positive relationship indicates that if FDR increases, NPF will increase and conversely if FDR decreases, NPF will also decrease. It should be noted that Bank Muamalat Indonesia throughout the study period had the lowest NPF of 0.67 in the fourth quarter of 2021 and the highest NPF of 7.23 in the second quarter of 2016. The results of this study are supported by the theory presented by Hariyani, that more and more financing is

¹⁹ Dahlan Siamat, Dahlan Siamat, *Manajemen Lembaga Keuangan: Kebijakan Moneter Dan Perbankan* (Jakarta: Lembaga Penerbit Fakultas Ekonomi UI, 2005), h. 287.

²⁰ Nurfadhila Tsania, Destian Arshad Darulmalshah Tamara, and Setiawan Setiawan, "Pengaruh CAR, FDR, BOPO Dan PDRB Terhadap Non-Performing Financing Pada Bank Umum Syariah BUMD Di Indonesia," *Journal of Applied Islamic Economics and Finance* 2, no. 3 (2022): 524–35, <https://doi.org/10.35313/jaief.v2i3.3065>.

²¹ Husnul Khatimah, Nurida Isnaeni, and Rico Wijaya, "Pengaruh BOPO (Biaya Operasional Per Pendapatan Operasional), DPK (Dana Pihak Ketiga) Dan CAR (Capital Adequacy Ratio) Terhadap NPF (Non Performing Financing) Pada PT . Bank Syariah Mandiri Di Indonesia," *Journal Najaha Iqtishod* 1, no. 1 (2020): 20–32, <https://online-journal.unja.ac.id/JIEF/article/view/11196/10225>.

²² Amalia Eka Purnamasari and Musdholifah Musdholifah, "Analisis Faktor Eksternal Dan Internal Bank Terhadap Risiko Pembiayaan Bank Umum Syariah Di Indonesia Periode 2012-2015," *Jurnal Bisnis Dan Manajemen* 9, no. 1 (2016): 13–25, <https://doi.org/https://doi.org/10.26740/bisma.v9n1.p13-25>.

disbursed by banks the higher the risk of problematic financing generated. This is because there is a possibility that the provided financing will not be properly controlled.²³ The results of this study were also supported by previous research by Prastiwi,²⁴ Rahayu et al.,²⁵ Supriani & Sudarsono,²⁶ which stated that FDR had a significant effect on NPF. The high problem financing caused by high financing also occurs in financial institutions in Malaysia, thus providing recommendations to managers to pay attention to financing management.²⁷

c. Effect of Return on Assets on Bank Muamalat Indonesia's Non-Performing Financing

The results of this study indicate that Return on Assets (ROA) has a significant negative effect on Bank Muamalat Indonesia's Non Performing Financing (NPF) for the 2013-2021 period. A negative relationship indicates that if ROA increases, NPF will decrease and vice versa if ROA decreases, NPF will increase. The results of this study are supported by the theory of Horne and Wachowicz which states that the higher the ROA, the bank can reduce the level of non-performing financing so that the NPF will decrease and vice versa.²⁸ This is because a high ROA indicates that the profit earned by the bank is increasing so that it can increase bank capital which can later be used to reduce the risk of non-performing bank financing. The results of this study are also supported by previous research by Mandasari,²⁹ Laestiani,³⁰ Putra & Syaichu,³¹ and Anwar & Sunaenah³² which state that ROA has a significant effect on NPF.

²³ Iswi Hariyani, *Restrukturisasi Dan Penghapusan Kredit Macet* (Jakarta: PT Elex Media Komputindo Kompas Gramedia, 2010), h.57.

²⁴ Iin Emy Prastiwi, "Analisis Kondisi Makro Ekonomi Dan Likuiditas Terhadap Pembiayaan Bermasalah Perbankan Syariah," *Jurnal Disrupsi Bisnis* 4, no. 1 (2021), <https://doi.org/10.32493/drj.v4i1.9123>.

²⁵ Annisa Rahayu Prasetyo et al., "Pengaruh CAR, BOPO, Dan FDR Terhadap NPF Pada Bank Syariah Indonesia Periode Tahun 2016-2021," *Ekonomi, Keuangan, Investasi Dan Syariah (EKUITAS)* 3, no. 4 (2022), <https://doi.org/10.47065/ekuitas.v3i4.1215>.

²⁶ Indri Supriani and Heri Sudarsono, "Analisis Pengaruh Variabel Mikro Dan Makro Terhadap NPF Perbankan Syariah Di Indonesia," *Equilibrium: Jurnal Ekonomi Syariah* 6, no. 1 (2018), <https://doi.org/10.21043/equilibrium.v6i1.3040>.

²⁷ Hirnisa M.T, Zariyawati M.A, and Fadilla R., "Exploratory Study on Determinants of Problem Loan Among Non-Bank Financial Institution In," *Ad Anced Journal of Accounting and Finance* 2, no. 1 (2020): 1–9, <https://myjms.mohe.gov.my/index.php/ajaf/article/view/9701>.

²⁸ C. Van Horne, James James, and John M. Wachowicz, *Prinsip-Prinsip Manajemen Keuangan* (Jakarta: Salemba Empat, 2005), h.235.

²⁹ Jayanti Mandasari, "Pengaruh Return on Asset (ROA), Financing To Deposits Ratio (FDR) Terhadap Non Performing Financing (NPF) Pada Bank Syariah Di Indonesia," *Journal of Accounting, Finance, and Auditing* 3, no. 1 (2021): 25–33, <https://doi.org/https://doi.org/10.37673/jafa.v3i1.888>.

³⁰ Neli Laestiani, Westi Riani, and Meidy Haviz, "Pengaruh Inflasi , Laju Pertumbuhan Ekonomi (LPE), Dan Return On Asset (ROA) Terhadap Non Performing Finance (NPF) Pada Bank Umum Syariah Di Indonesia Periode 2016.1-2018.12," *Prosiding Ilmu Ekonomi* 6, no. 1 (2020), <https://doi.org/http://dx.doi.org/10.29313/v0i0.19728>.

³¹ Adhyasa Putra and Muhamad Syaichu, "Analisis Pengaruh Bank Size, BOPO, FDR, CAR, Dan ROA Terhadap Non-Performing Financing (Studi Kasus Pada Perusahaan Perbankan Syariah Yang Terdaftar Di Bursa Efek Indonesia (BEI) Tahun 2016 – 2019)," *Diponegoro Journal of Management* 10, no. 2 (2021): 1–13, <https://ejournal3.undip.ac.id/index.php/djom/article/view/32364>.

³² Cep Jandi Anwar and Sunaenah Sunaenah, "Pengaruh Roa Dan Car Terhadap Kredit Macet (NNPL) Pada Bank Umum Di Indonesia," *Jurnal Ekonomi-Qu* 6, no. 2 (2016): 214–35, <https://doi.org/10.35448/jequ.v6i2.4344>.

d. The Effect of Operational Costs on Operational Income on Bank Muamalat Indonesia's Non-Performing Financing

The results of this study indicate that BOPO has a negative and insignificant effect on Bank Muamalat Indonesia's Non Performing Financing (NPF) for the 2013-2021 period. Based on this, any increase or decrease in BOPO has no impact on the increase or decrease in NPF. The results of the statistical analysis show that Bank Muamalat Indonesia's BOPO for the 2013-2021 period has an average value of 94.58%, the BOPO value is still quite high, while the lower the BOPO, the more efficient the bank's operations are. According to BI regulations, a bank is categorized as healthy if its maximum BOPO ratio is between 94% - 96%.

The results of this study are not in accordance with the theory expressed by Dendawijaya, that BOPO has an influence on the state of bank problem financing. The more efficient BOPO, the lower the potential for non-performing financing (NPF). Efficient BOPO can increase bank profits which will later contribute to bank capital adequacy so that it can be used to bear the risk of bank losses from non-payment of customer financing.³³ The BOPO has no effect on Bank Muamalat Indonesia's NPF for the 2013-2021 period because the bank's BOPO ratio has increased while bank profitability has decreased so that bank profits do not really have a contribution to increasing bank capital. On the other hand, Bank Muamalat Indonesia's capital adequacy is in good condition. The results of this study are supported by previous research by Yuniarti et al.³⁴ and Destiana³⁵ who stated that BOPO had no significant effect on problem financing.

e. The Influence of Inflation on Bank Muamalat Indonesia's Non-Performing Financing

The results of this study indicate that inflation has an insignificant negative effect on Bank Muamalat Indonesia's Non Performing Financing (NPF) for the 2013-2021 period. Based on this, any increase or decrease in inflation has no impact on the increase or decrease in NPF. The results of the statistical analysis show that the inflation rate in Indonesia for the 2013-2021 period has an average value of 1%. The average value of the inflation rate in Indonesia during the 2013-2021 period is still relatively mild, so it is not too dangerous for people's economic activities.

The results of this study are not in line with the theory expressed by Nopirin that inflation can affect NPF. According to this theory, an increase in inflation can cause debtor installment payments to be not in accordance with a predetermined schedule because people's income has been diverted to meet their daily needs. The impact is that the quality of customer financing is getting worse and can increase NPF.³⁶ Inflation is an external factor that can affect the quality of customer financing. However, the inflation rate in Indonesia during the 2013-2021 period was still in the mild inflation type, so it did not have an impact on the quality of customer financing because it did not cause changes in people's

³³ Lukman Dendawijaya, *Manajemen Perbankan* (Jakarta: Galian Indonesia, 2009), h. 120.

³⁴ Zs, Astuti, and Ranidiah, "Faktor-Faktor Yang Mempengaruhi Non Performing Financing (NPF) Pada Bank Umum Syariah Yang Terdaftar Di Otoritas Jasa Keuangan (OJK) Periode 2015-2019."

³⁵ Rina Destiana, "Determinan Pembiayaan Bermasalah Pada Bank Syariah Di Indonesia," *Jurnal Riset Keuangan Dan Akuntansi* 4, no. 1 (2018): 53–63, <https://doi.org/10.25134/jrka.v4i1.1335>.

³⁶ Nopirin, *Ekonomi Moneter Buku II* (Yogyakarta: BPFE Yogyakarta, 2016), p. 32.

economic activities. In this case, the community still has the ability to pay their obligations to the bank according to the schedule agreed with the bank. The results of this study are supported by previous research³⁷ of Najiatus et al.³⁸ and Alam & Harahap³⁹ who stated that inflation had no significant effect on NPF.

f. Effect of Exchange Rate on Bank Muamalat Indonesia's Non-Performing Financing

The results of this study indicate that the exchange rate has no significant negative effect on Bank Muamalat Indonesia's Non Performing Financing (NPF) for the 2013-2021 period. Based on this, any increase or decrease in the exchange rate has no impact on the increase or decrease in NPF. The results of the statistical analysis show that the Rupiah exchange rate against the US Dollar for 2013-2021 has an average value of IDR 13,574. This value indicates that the value of Rupiah is decreasing or weakening against USD.

The results of this study are not in line with the theory expressed by Kuncoro that the exchange rate can affect non-performing financing. In this theory it is explained that when foreign currencies increase, in this case the US dollar, it will affect the business activities of customers who have a relationship with imported raw materials⁴⁰. The exchange rate has no effect on Bank Muamalat Indonesia's NPF for the 2013-2021 period because financing customers at Bank Muamalat Indonesia do not come from producers who have business activities related to imported raw materials. Therefore, an increase or decrease in the rupiah exchange rate against the dollar has no effect on the increase or decrease in the NPF at Bank Muamalat Indonesia. The results of this study are supported by previous research by Fahlevi⁴¹ and Harahap et al⁴² which states that the exchange rate has no significant effect on NPF.

g. Effect of Minimum Capital Adequacy Requirement, Financing to Deposit Ratio, Return on Assets, Operational Efficiency Ratio, Inflation, and Exchange Rate on Bank Muamalat Indonesia's Non Performing Financing

The results of this study indicate that all independent variables, namely the Minimum Capital Adequacy Requirement, Financing to Deposit Ratio, Return on Assets, Operational Efficiency Ratio, Inflation, and Exchange Rate have a

³⁷ Mega Diah Alnikmatus Sholikhah, "Pengaruh Cadangan Kerugian Penurunan Nilai (CKPN), Pertumbuhan Volume Pembiayaan Serta Inflasi Terhadap Non Performing Financing Pada Bank Umum Syariah Di Indonesia Periode 2012-2016," *Jurnal Ilmu Akuntansi Mulawarman* 3, no. 4 (2018): 1–19, <https://doi.org/https://doi.org/10.29264/jiam.v3i4.3381>.

³⁸ Najiatus Najiatus et al., "Analisis Variabel Makroekonomi Terhadap NPF Perbankan Syariah Di Indonesia," *Jurnal Ekonomi* 24, no. 3 (2019): 335–49, <https://doi.org/10.24912/jc.v24i3.597>.

³⁹ Anjur Perkasa Alam and M. Arfan Harahap, "Analisis Pengaruh Inflasi, Kurs, Suku Bunga, Margin Bagi Hasil Terhadap Non Performing Financing Pada Bank Syariah," *Jurnal Syntax Admiration* 1, no. 3 (2020), <https://jurnalsyntaxadmiration.com/index.php/jurnal/article/view/58/65>.

⁴⁰ Mudrajat Kuncoro and Suhardjono Suhardjono, *Manajemen Perbankan: Teori Dan Aplikasi*. Yogyakarta: BPFE Yogyakarta. (Yogyakarta: BPFE Yogyakarta, 2002), p. 42.

⁴¹ Muhammad Ryan Fahlevi, "Pengaruh Inflasi, Kurs Dan Gross Domestic Product Terhadap Non Performing Financing (NPF) Perbankan Syariah Indonesia Periode 2016–2020," *Jurnal Masharif Al-Syariah: Jurnal Ekonomi Dan Perbankan Syariah* 7, no. 2 (2022): 482–509, <https://doi.org/http://dx.doi.org/10.30651/jms.v7i2.13750>.

⁴² Muhammad Arfan Harahap, Anjur Perkasa Alam, and Muspita Pradila, "Pengaruh Nilai Tukar (Kurs) Dan Inflasi Terhadap Tingkat Non Performing Financing (NPF) Pada Bank Syariah," *El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam* 2, no. 2 (2019): 214–24, <https://doi.org/10.47467/elmal.v2i2.548>.

positive and significant effect on the dependent variable (Non Performing Financing of Bank Muamalat Indonesia) for the period 2013- 2021. The positive effect shows that if the Minimum Capital Adequacy Requirement, Financing to Deposit Ratio, Return on Assets, Operational Efficiency Ratio, Inflation and Exchange Rate decreases, it will reduce Bank Muamalat Indonesia's Non Performing Financing for the 2013-2021 period and vice versa. The contribution of the independent variables used in influencing the dependent variable of Non Performing Financing is 59.4% while the remaining 40.6% is explained by other variables that are outside or not studied in this study. In the framework of encouraging non-performing financing to be considered by other variables, it is necessary to consider internal variables in the form of prudence from a sharia perspective.⁴³ Sharia is an instrument for managing Islamic banks as a whole, this has the potential to encourage awareness and responsibility for customer financing obligations.

Conclusion

Based on the discussion above, it can be concluded as follows.

- a. The Minimum Capital Adequacy Requirement (KPMM) partially has a negative and insignificant effect on Non-Performing Financing at Bank Muamalat Indonesia. Capital is able to support the risk of non-performing financing so that the capital ratio is in a healthy condition as the soundness level of Islamic banks.
- b. The Financing to Deposit Ratio (FDR) partially has a significant positive effect on Non Performing Financing at Bank Muamalat Indonesia. The higher the disbursed financing, the more effort is required for Islamic banks in providing supervision, management and ensuring that customers are smooth in payments.
- c. Return on Assets (ROA) partially has a significant negative effect on Non Performing Financing at Bank Muamalat Indonesia. A high profit ratio shows the ability of assets to provide large profits, so that financing does not provide the opposite benefit.
- d. Operational Efficiency Ratio (BOPO) partially has a negative and insignificant effect on Non-Performing Financing at Bank Muamalat Indonesia. This indicates that operational costs tend to be suboptimal in driving down non-performing financing.
- e. Inflation partially has no significant negative effect on Non Performing Financing at Bank Muamalat Indonesia. High inflation has encouraged prudence in managing financing, thereby reducing problems.
- f. Exchange Rate partially has no significant positive effect on Non Performing Financing at Bank Muamalat Indonesia. High exchange rates at Islamic banks indicate that transactions that intersect exchange rates, whether their customers have foreign exchange transactions or even Islamic banks need to be balanced in managing different currencies, both in terms of assets and liabilities.
- g. Minimum Capital Adequacy Requirement, Financing to Deposit Ratio, Return on Assets, Operating Costs to Operating Income, Inflation, and Exchange Rates together have a significant effect on Non Performing Financing at Bank Muamalat Indonesia.

⁴³ Binti Nur Asiyah, M. Ridlwan Nasir, and Muhamad Ahsan, "Islamic Prudential Banking Concept to Reduce Non Performing Financing," *Iqtishadia* 12, no. 2 (2019), <https://doi.org/10.21043/iqtishadia.v12i2.5641>.

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