Factors Influencing Non-Performing Financing (NPF) In Sharia Banking

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Article Information:	ABSTRACT
	The risk of financing is caused by the customer's failure to fulfill their obligations. Non-performing financing (NPF) is a representation of financing risk that is channeled and has a direct impact on bank profitability. The value of NPF tends to increase annually with a value that is already close to the maximum limit set by Bank Indonesia of 5 percent. This condition can lead to the inefficiency of the banking system and, in the long run, will impact the Bank's sustainability. Therefore, the analysis of NPF factors should be conducted as a preventive measure and a risk controller of business activities. This research analyzes the factors influencing NPF at sharia banking (BUS) using quarterly data from the first quarter of 2012 until the third quarter of 2016. The method used in this research is panel data analysis. The result of the investigation shows that the factors influencing NPF negatively and significantly are a ratio of revenue sharing financing (RR), Return on assets (ROA), inflation, Capital Adequacy Ratio (CAR), and Bank size. At the same time, Gross Domestic Product (GDP) and Operating Cost to Operating Income (BOPO) have a significant positive effect. **Keywords**: *financing; panel data analysis; risk; sharia bank*

INTRODUCTION

Banking is one of the most crucial sectors in developing the national economy (Cheung dkk., 2019). Following Law No. 10 of 1998, Indonesia adopted a dual

banking system (Z. Li dkk., 2020). Conventional and Sharia banks can coexist under the dual banking system (T. Li dkk., 2021). Since then, the government and Bank Indonesia have made significant commitments and established several measures to control, monitor, and expand Islamic banks (Q. Li dkk., 2019). The growth of Sharia banking in Indonesia manifests the public's need for an alternative banking system that also offers Sharia principles and healthy financial services (Mao dkk., 2020). Sharia banking can assist banks in obtaining third-party funding (DPK), which will also impact expansion.

Demonstrates that Sharia banking has led to annual increases in total assets, deposits, and funding (Mangione dkk., 2020). In 2015, there were 195 018 billion rupiahs in total assets; in 2021, there will be 356 504 billion rupiahs. On the DPK side, the value reached 147 512 in 2015 billion and increased to 279 335 billion in 2016. The Bank can boost its financing when it has a lot of total assets and deposits, which resulted in a rise in funding in 2021 that reached 248 007 billion rupiahs. The level of profit sharing and profit margins that Islamic banks will tolerate increases in direct proportion to the amount of financing disbursed. The efficiency gained by having more funding could boost Sharia banks' profits. Additionally, the primary business activity that is carried out is financing.

Sharia bases will encounter a variety of risks with varied degrees of complexity related to their commercial activities as Sharia banking develops, particularly on the funding side. The risk of financing is one risk that has a significant effect. The risk associated with the funding comes from the customer's failure to meet their obligations.

Non-performing financing (NPF) is a representation of fi nancing risk and has a direct impact on bank profitability (Z. Yang dkk., 2019). This is supported by the research results by), which shows that the ratio of NPF negatively affects Return on Assets (ROA). Sharia banks have offered various types of financing to meet the needs of their customers (Liu dkk., 2019). Sharia banks run financing with several contracts (Tshitoyan dkk., 2019). According to the Sharia banking statistics of the financial services authority, the main financing pattern that dominates in Sharia banking is the principle of buying and selling (Murabaha) and the direction of profit sharing (musyarakah and mudarabah).

Total finance will increase yearly from 147.505 billion rupiahs in 2015 to 234.643 billion in 2021 (J dkk., 2020). demonstrates that from 2015 to 2021, funding through murabahah schemes will outweigh financing through sharia banks, with mudharabah and musyarakah coming in second and third (Su dkk., 2020). Comparing financing of profit-sharing structures like mudharabah and musyarakah contracts to murabahah funding, one can see that the latter has a more negligible risk (Safi dkk., 2021). This leads to the dominance of murabahah contracts in Sharia banking.

Murabahah is a buying and selling agreement between the Bank and the customer (Best, 2019). The Bank buys and sells the required item at the acquisition price plus the profit margin. In terms of profit sharing, the Bank provides financing based on profit sharing (mudharabah) and equity (musyarakah). Thus, different characteristics of

Sharia financing contracts indicate different levels of risk so that financing policies affect financing risk.

(Siagian dkk., 2021) states that macroeconomic factors such as inflation and GDP and the specific condition of the Bank affect the NPF. (Saniati dkk., 2022) shows that inflation has a positive effect on NPF. Setyowati shows that GDP significantly and negatively affects non-performing loans see (Moore dkk., 2020). On the inner side of Islamic banking, it can be analyzed with the achievement by looking at the financial ratios. Financial ratios affecting NPF level are capital adequacy ratio (CAR) and operational cost to operating income (Rahmadi dkk., 2020). Besides, (Addina dkk. 2023) shows that Return on Assets (ROA) and bank size negatively affect NPF. Therefore, previous studies imply that some internal Sharia banking, e.g., CAR BOPO, bank size, ROA, and external factors, may significantly affect the NPF. The external factor denotes the macroeconomic variables such as GDP and inflation.

The value of NPF, which tends to increase annually with a value, i.e., already close to the maximum limit set by Bank In Indonesia of 5 percent, can lead to the inefficiency of the banking system and, in the long run, will have an impact on the sustainability of the Bank. Therefore, the analysis of NPF factors should be reviewed as a preventive measure and risk controller of business activities. Some previous studies analyze factors affecting NPF in Sharia banks using the available data set provided by OJK.

However, this study attempts to analyze factors affecting NPF by using individual data from nine Sharia banks in Indonesia. Based on the description, the problem statement that can be raised in this study are: Firstly, how are the development ments of NPF in Sharia Bank? Second, what factors affect the NPF in Sharia Bank?

The type of data used in this study is secondary data in the form of time series data from the first quarter of 2015 until the third quarter of 2021 and cross-section data from nine Sharia Banks (Wang dkk., 2020). Sharia banks that became the object of this research are PT Bank Muamalat Indonesia (van der Pluijm dkk., 2019), PT Bank Syariah Mandiri (BSM), PT Bank Negara Indonesia Syariah (BNI Syariah), PT Bank Central Asia Syariah (BCA Syariah), PT Bank Rakyat Indonesia Syariah (BRI Syariah), PT Panin Syariah, PT Bank Mega Syariah, PT Bank Jabar Banten Syariah, and PT Bukopin Syariah. The data used in this study are Return on Assets (ROA), the ratio of revenue-sharing financing to total income financing (RR), Capital Adequacy Ratio (CAR), Operational Cost to Operating Income (BOPO) (Alayba dkk., 2018), Net Operational Margin (NOM) Banksize, inflation, and Gross Domestic Product (GDP). Data from various sources include data derived from the financial statements of personal Sharia banks, financial services authority, central bureau of Statistics, and Bank Indonesia.

RESEARCH METHODOLOGY

The estimation method for panel data can use three approaches: Pooled Least

Squared (Chen dkk., 2019), Fixed Random Effect (Patel, 2019), and Random Effect Model (Moore dkk., 2020). To find the exact model can use the Chow test and Hausman test.

Looking at the results of earlier empirical studies and considering the assumptions that the panel data model refers to, the variables expected to affect non-performing financing at Sharia commercial banks are internal banking variables, including financing policies and external variables. Here are the leading models in this study:

$NPFit = a + a1RRit + a2NOMit + a3ROAit + a4LNBANKSIZEit + a5CARit + a6BOPOit + a7LNGDPit + a8INFit + eit$

Notes:

NPFit: Non-Performing Financing (percent)

RRit: Ratio return (percent)

NOMit: Net Operational Margin (percent)

ROAit: Return on Assets (percent)

LNBANKSIZEit: Ln total asset (percent)

CARit: Capital Adequacy Ratio (percent)

BOPOit: Level of efficiency (percent)

LNGDPit: Gross Domestic Product (percent)

INFit: Inflation (percent)

i: Cross section

t: time series

a; a1 ; εit   : Intersep; Konstanta; eror

RESULT AND DISCUSSION

Tests of classical assumption violations consist of multi co   linearity test (Schuld dkk., 2020), normality (Gong dkk., 2019), heteroscedasticity, and autocorrelation. The model is good if it is free from violating the classical assumption.

Table 1

		Test the Best Model		
Probability Chi-Squared	Durbin Watson	Sum Square Resid (Weigted)	Sum Square Resid (Unweigted)	Probability Jarque Bera
Model 1	1.695347	157.7606	207.8044	0.067716

Source: Output Eviews 9

Based on the output in Table 1 to the classical assumption test, the following results are obtained: Normality test, From the Skewness/Kurtosis, the result shows that the probability of the JarqueBera is more than the actual alpha level of 0.05 so that there is enough evidence to reject H0. Thus, the residuals in the research are spread commonly. Multicollinearity Test, The test of the multicollinearity problem can be seen

from the criterion, which shows the value of R2 (high square R2) but from the estimation result of many research variables, which is not significant. This research shows the multicollinearity from the correlation coefficient value by using e-views software 9. In the output, the result shows no correlation value exceeding 0.9 on the independent variables.

Thus, the requirements have been met. Test Heteroscedasticity can be known by comparing Sum Square Resid on Weight Statistic with Sum Squared Resid Unweighted Statistic. There is a heteroscedastic city if Sum Square Resid on Weight Statistic is smaller than Sum Squared Resid Unweighted Statistic. The model in the study uses GLS Cross-Section so that direct heteroskedasticity problems can be corrected and the model is free from heteroscedasticity problems. Test Autocorrelation, The autocorrelation test can be done by looking at Durbin Watson (DW). Models free from autocorrelation should be in an autocorrelation-free area with a DW-stat value between DU.

As an intermediary institution, the Bank has to channel the financing to the community. Distribution of the financing will cause risks that the Bank must consider, one of them controlling the value of non-performing financing (Chia dkk., 2020). The gross NPF Condition at sharia commercial bank shows a fluctuating trend every year. I referred to Bank Indonesia regulation number 15/2/ PBI/2021 about status determination and follow-up supervisory on Sharia banks (Bank Indonesia 2021) (Gui dkk., 2019). The regulation sets the maximum limit of NPF of 5 percent (Hu dkk., 2020). The data presented in the picture shows that some banks have a Gross NPF value above 5 percent (Zou dkk., 2019). Sharia commercial banks should pay more attention to this because high NPFs can cause a loss to the banks.

It can be seen that NPF in Sharia banks has an average NPF rate of 0 to 7 percent. By 2015 and 2016, the highest NPF rate is owned by BJB Syariah Bank. This is caused by the decline in oil prices and followed by a decline in commodity prices that becomes complementary such as coal and oil substitution goods such as natural rubber, so oil companies and supporting industries are experiencing financial difficulties. Even some companies have experienced bankruptcy demands due to the inability of the company to fulfill its financial obligations to the creditor.

In addition, Bank Muamalat's NPF has had a fluctuating development every year since 2014. In 2014 the value of NPF in

Muamalat reached 6.43 percent. Like other Sharia banks, the cause is the depressed global commodity prices that are the mainstay of Indonesian exports, especially coal. In addition, the cause of the high level of NPF Muamalat in that year was the bankruptcy of Batavia Air. Bank Muamalat funded the airline for Rp 120 billion, with special financing when Batavia went bankrupt was Rp 186 billion. Muamalat's NPF has experienced an improvement trend since the second quarter of 2015, but until 2016 NPF is still high in the corporate sector, especially in the mining sector. Financial markets are still in dire straits as commodity prices are still depressed, which causes the growth rate of the banks, in general, to be very low (Bank Muamalat

Indo   Asia 2017).

The model in this study was conducted to see the effect of internal and external variables on the level of Non-Performing Financing (NPF) from the first quarter of 2015 until the third quarter of 2021 (Wu dkk., 2019). The results of this study showed that RR, ROA, inflation, GDP, CAR, BOPO, and banks Significantly to the NPF of Sharia banking. This research shows the value of R2 in model estimation with a high enough number of 0.978106. It means 97.8 percent diversity of NPF variables can be explained by independent variables in the model and the rest by other variables outside the model.

This relationship indicates that when inflation increases by 1 percent, the NPF level will decrease by 0.125498 percent, assuming that other variables are considered constant (B. Yang dkk., 2019). The results of this study do not follow the initial hypothesis. However, they align with Firmansyah's (2015) research, stating that inflation significantly negatively affects NPF (Destek & Sinha, 2020). High inflation rates will lead to higher nominal interest rates, ultimately lowering accurate money balances (Seymour dkk., 2019). If society holds a relatively low natural money balance, the public will withdraw the money stored in the Bank. According to (Huda et al., 2008), the impact of inflation causes people to be reluctant to save because the currency's value is declining.

This will lead to a decrease in third-party funds or bank assets so that the distribution of funds will decrease (van der Pluijm dkk., 2019). The decrease in financing disbursed will also reduce the value of NPF. GDP variable has a significant positive effect on NPF with a coefficient of 7.885820. This relationship indicates that when GDP increases by 1 percent, the NPF level will rise by 7.885820 percent, assuming that other variables are considered constant. The results of this study need to follow the initial hypothesis. However, they align with Fir Mansari and Suprayogi's (2015) research results, which indicate that GDP variables have a significant positive effect on NPF. Increasing GDP will affect people's income if the economic conditions are good. Increased public income will affect the Bank's DPK because people tend to be able to invest. As the DPK increases, the Bank can expand its financing so that the financing risks banks face will be more significant.

CAR variables negatively and significantly affect NPF with a coefficient of -0.023134. This relationship indicates that when CAR increases by 1 percent, the NPF level will decrease by 0.023134 percent, assuming that other variables are considered constant (Seymour dkk., 2019). This study's results follow the initial hypothesis and line with the research results (Sukmana, 2015), which states that CAR has a significant negative effect on NPF in Islamic banks. This shows that the CAR is a financial performance that describes the ratio of capital adequacy to risk-bearing assets, so the higher the CAR value, the decreased the NPF value. The BOPO variable significantly positively affects NPF with a coefficient of 0.037532. This relationship shows that when BOPO increases by 1 percent, the NPF level will rise by 0.037532 percent, assuming other. The variables are considered constant. The results of this study follow

the initial hypothesis. They align with the research results by Ferawati (2016), which indicates that the variable BOPO has a significant positive effect on NPF.

When BOPO value increases, the Bank needs help controlling its operational costs. Of course, this will disrupt the operation of the Sharia bank itself and affect the NPF. Bank size variables negatively and significantly influence the NPF level in Sharia banks (Magson dkk., 2021). The bank size coefficient is -0.404362. This means that an increase in assets of 1 will decrease the NPF by 0.404362, with other factors assumed to be constant.

The results of this study are in accordance with the initial hypothesis and in line with the results of (Pratina, 2015) which shows that total assets have a significant adverse effect on NPF. Banks with large total assets tend to expand financing, leading to increased revenue quickly. In addition to financing expansions, banks will also more easily obtain third-party funds. This will help banks manage their business and financing risks.

RR variable has a negative and significant influence on NPF with a coefficient of -0.584148. This relationship indicates that when RR increases by 1 percent, the NPF level will decrease by 0.584148 percent, assuming that other variables are considered constant. This study's results follow the initial hypothesis. They are supported by the results of the Kinasih (2013) study, indicating that the RR variable significantly affects the NPF because it reflects the Bank's prudent level in conducting risky financing. It indicates the Bank's commitment and seriousness in preventing a moral hazard and adverse selection. ROA variable negatively and significantly influences NPF with a coefficient of -0.343879.

This relationship shows that when ROA increases by 1 percent, the NPF level will decrease by 0.343879 percent, assuming other variables are considered constant. This study's results follow the initial hypothesis. They align with the research results (Setiawan & Putri, 2013), which indicate that the ROA variable significantly negatively affects NPF. The greater the ROA shows the company's performance, the better because the return is more significant. With the increase in profits obtained by banks, the Bank will be more accessible in overcoming the risks faced, so the risk of non-performing financing will decrease. The NOM variable has a positive but insignificant effect on the NPF. These results align with the (Kinasih, 2013) study, which shows that the NOM variable of XYZ bank, in the long run, has no significant effect. This is because at the time of high NOM will increase the profitability of banks so that banks can manage the risk well, which makes the NPF value not increase.

CONCLUSION

This article analyzes the factors influencing non-performing financing in Sharia banking. Internal and Mac economic variables influence non-performing financing at Sharia banks. Firstly, the internal variables of the Bank that af fect Non-Performing Financing are RR, ROA, CAR, BOPO, and Bank size. While RR, Bank size, CAR, and

ROA variables have a negative and significant effect on NPF, the BOPO variable positively and significantly influences NPF. Second, the macroeconomic variables of the Bank that affect non-performing financing are inflation and GDP. While inflation has a negative and significant effect on NPF,

GDP variable has a positive and significant influence on NPF. The writer can provide the following recommendations: First, Sharia banks should maintain the financial performance and set appropriate financial policies by monitoring the Bank size, BOPO, CAR, ROA, and RR ratios. This is because the internal condition of the Bank becomes the thing that affects the ability of banks to manage the NPF.

The higher NPF may lead to the inefficiency of the banking system and, in the long run, will impact the sustainability of the banks. Therefore, it is crucial to maintain the factors affecting NPF from internal banks so they can prevent higher NPF values in the future. In addition, regulators have to control the macroeconomic variable, particularly inflation rate. Second, further research can be done more profoundly on financing, which has a high NPF value based on the type of financing or contracts. Besides, many previous studies have been conducted about NPF, but few of them discuss factors affecting NPF from the customer side.

Therefore, factor analysis that affects NPF from the customer side may conduct for further research since banks need to understand the reason customers are not able to repay their installments. The data of this study is limited to nine Sharia banks (BUS) in Indonesia. The remaining BUS and rural banks (BPRS) have not been reached since limited data was provided. Thus, for further studies, it is recommended to add all Sharia banks , including (BUS), Sharia business units (UUS), as well as rural banks (BPRS).

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