Determinants of Profitability in Indonesian Islamic Banking: Case Study in the COVID-19 Period

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Abstract

With a high level of COVID-19 virus spread throughout the world, Indonesia is one of the countries in Southeast Asia affected by the largest transmission chain. This affects various layers of the industry in this country, one of which is financial institutions and the banking system. This paper tries to look at the performance of Islamic banking in the face of the COVID-19 pandemic. Using the linear regression method, the authors use ROA as the dependent variable. Whereas CAR, NPF, FDR, and BOPO as independent variables. The results show that CAR and BOPO have significant results while the rest do not show satisfactory results. It can be concluded that during the pandemic, Islamic banking experienced a pretty good and convincing performance.

1. Introduction

In early 2020, the Corona Virus (COVID-19) shook the world with its impacts, both health and economically. This virus first appeared in Wuhan City, Hubei Province, and then spread ferociously to various parts of the world. Dong et al. (2020) stated that COVID-19 spreads more than 7,000 cases outside China and 3,000 people have died. Officially, Word Health Organization (WHO) later established COVID-19 as a global pandemic (WHO, 2020).

With the spread of the COVID-19 virus throughout the world, Indonesia is one of the countries in Southeast Asia that is affected by the biggest transmission chain. Djalante et al. (2020) estimated that Indonesia will be greatly affected for a long time. In addition to the health sector, the economic sector was highly affected by the outbreak of COVID-19; as a result, financial institutions and the banking system became very fragile.

Bank Indonesia as the central bank has responded by issuing a mixture of stimulus packages to support the risk mitigation efforts of the spread of Covid-19 and maintain stability in conventional or sharia financial systems (BI, 2020). The policy in question is the easing of the financing or credit structure for directly affected customers such as MSMEs and liquidity policies. The findings of previous researches conducted by Wahyudi et al. (2017) and Wahyudi & Riduwan (2019) state that several central bank policy instruments contribute positively to the performance of Islamic banking in Indonesia.

Islamic banking was no exception, too, had felt the pressure of liquidity and profitability during the Covid-19 pandemic. Although, empirically and practically for almost two decades Islamic banking has been able to overcome various types of global financial crises (Rahman, 2015; Zulaikaha & Laila, 2016; Yudistira, 2017; Nurfalah et al., 2018; Hanifah Rahmi, 2019). However, the crisis caused by the Covid-19 pandemic is different, according to Omar (2020) the impact of Covid-19 created three major crises, namely the health crisis, economic crisis and social crisis.

Most of the researches have been done reflect the determinants factor of Islamic banks' performance in the normal period (Raharjo et al., 2020; Syakhrun & Amin, 2019; Haryati et al., 2019; Ardana, 2018; Rahmah & Kusbandiyah, 2018). The number of banks and network of Islamic banking offices continues to experience an impressive increase as shown by the number of office networks of Islamic Commercial Banks, Islamic Business Units and Islamic Rural Banks. The number of Islamic banks per July 2019 increased to 14 Islamic Commercial Banks, 20 Islamic Business Units, 165 Islamic Rural Banks with a total of 2,805 offices (OJK, 2019). This study focuses on analyzing the influence of CAR, NPF, FDR and operational costs to operating income to the profitability of Islamic banking in Indonesia during the COVID-19 pandemic, so it is quite unique considering that most of the previous literature was analyzed during normal times

(Almunawwaroh, 2018; Munir, 2018; Yundi, 2018; Azmy, 2018; Syachfuddin & Rosyidi, 2017).

The main purpose of this research is to study the conditions experienced by Islamic banking during the Covid-19 pandemic. The Indonesian banking system is quite unique by adopting a dual banking system under the supervision of the Financial Services Authority (OJK) and has different characteristics. Banks in Indonesia have a dual system, Islamic banks and conventional banks. Furthermore, these findings are for policy recommendations that can be taken by stakeholders in banking.

2. Literature Review

Several studies have been conducted relate to Islamic banking's performance during normal period (Raharjo et al., 2020; Syakhrun et al., 2019; Haryati et al., 2019; Ardana, 2018; Rahmah & Kusbandiyah, 2018). The results of the study conducted by Pudjiastuti (2021) on the Portrait of Performance of Microfinance Institutions during the COVID19 Pandemic show that most of Micro Finance Institutions (LPM) performance shows a significant impact.

Haryati et al. (2019) examined the impact of bank age and bank performance towards the profitability of Islamic banks with intervening variable namely earnings distribution. The results showed that bank age had no significant effect on profitability, but NPF had a significant effect on revenue sharing. Furthermore, there was no significant effect of FDR and CI (Cost to Income) to revenue sharing. Finally, this study also revealed that profit sharing affected bank profitability significantly.

Ardana (2018) examined the influence of external factors (inflation and BI rate) and internal factors (Capital Adequacy Ratio, Return on Equity, Financing to Deposits Ratio, and Non-Performing Financing) on the profitability of Islamic banks in Indonesia. The results showed that the external and internal factors had a significant effect on the ROA simultaneously. Individually, the CAR, NPF, and inflation variables did not significantly affect ROA, while the FDR and ROE variables significantly effect on ROA both in short and long term. BI rate has no significant effect on ROA in the short term, but effects on the ROA variable in the long run significantly.

Another paper by Rahmah & Kusbandiyah (2018) examined the effect of performance on Islamic banks' profitability. Multiple regression analysis used in this research. The results show that FDR and operational costs to operating income have significant effect on profitability while NPF and CAR have no effect on the profitability of Islamic Banks.

Syakhrun et al. (2019) analyzed the effect of CAR, operational costs to operating income, NPF and FDR on profitability at Islamic commercial banks in Indonesia. By using purposive sampling, the test results show that CAR, operational costs to

operating income and NPF negatively affect the profitability of Islamic banks. However, FDR has a positive effect on the profitability of Islamic banks in Indonesia. In addition, Raharjo et al. (2020) examined the effect of CAR, NPF, operational costs to operating income, and Inflation variables on profitability (ROA) in Islamic banks in Indonesia in 2014-2018. The results showed that the operational costs to operating income and inflation variables affect ROA while the CAR and NPF variables do not affect ROA.

3. Research Methods

This type of research is quantitative descriptive to examine the effect of independent variables on the dependent variable. Samples were selected using the type of purposive sampling in accordance with the objectives of this study, namely 11 Sharia Commercial Banks that meet the sample criteria which include BNI Syariah, BSM, BRI Syariah, BCA Syariah, Syariah Net Bank, Panin Dubai Syariah Bank, Bukopin Syariah, Mega Syariah Bank, Bank Victoria Syariah, BTPN Syariah and Bank Aceh Syariah. Data obtained from the publication of the first quarterly report of each Islamic bank in 2020.

Independent variables include CAR, FDR, NPF and operational costs to operating income. CAR is used to measure the strength of bank capital in resisting external shocks (Hassan and Bashir 2003). According to Berger (1995) the higher the ratio, the more stable and efficient the bank is. While the relationship between this variable and profitability can vary throughout all stages of the business cycle. NPF is used to measure the quality of productive assets calculated from non-performing financing to total financing. The higher the ratio shows the low quality of productive assets and vice versa (Wahyudi, 2015). FDR is used to measure total financing against third party funds. The higher FDR shows good Islamic bank intermediation function (Wahyudi, 2015). NPF aims to measure the level of quality of productive assets. The higher this ratio shows the quality of Islamic bank financing getting worse and vice versa (Wahyudi, 2015). Operational costs to operating income measures the efficiency of operational costs compared to Islamic bank revenue (Wahyudi, 2015). All of these performance indicators have been used extensively by researchers to see the performance of Islamic banks.

The dependent variable in this study is profitability using ROA. According to Kumbirai & Webb (2010), ROA shows how much net profit is generated per rupiah of assets. The higher ROA, the more profit the bank. ROA was chosen because the bank's financial performance measurement tools have been widely used (Al-Tamimi, 2010).

Multiple linear regressions is used to answer the research problem formulation with test steps including classic assumption tests (normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test). Next, the coefficient of determination test (R^2) and hypothesis testing are performed namely the F test and t test by using SPSS 22 software.

The equation model in this study is as follows:
$$Y = \alpha + \beta_1 X_2 + \beta_2 X_2 + \beta_n Xn + e$$
Where:
Y   : Return on Assets (ROA)
X_1 : Capital Adequacy Ratio (CAR)
X_2 : Non Performing Finance (NPF)
X_3 : Financing to Deposit Ratio (FDR)
X_4 : Operational Costs to Operating Income (BOPO)

4. Results

The test results of multiple linear regression models from this study have a classic assumption that has accuracy in estimation, unbiased and consistent. The results of normality tests using Kolmogorov-Smirnov shows that the data is normally distributed (the sig value is 0.20 or greater than 0.05). The statistical result also shows that there is no autocorrelation symptom in this research variable with a distribution of 1266 values with Durbin-Watson method.

The presence of multicollinearity symptoms occurs in CAR variable that indicated by tolerance and VIF values of 0.074 and 13.439, respectively. The presence of multicollinearity symptoms in the test results is considered to be influenced by a small number of observations. Other performance variables do not occur with multicollinearity symptoms in accordance with assumptions with tolerance values> 0.100 and VIF values <10.00. The Glejser test result shows there is no symptom of heteroscedasticity. Thus, the classical assumption requirements have been met because the Sig. value is more than 0.05.

After conducting classical assumption test, then regression analysis result can be done to see the influence of independent variables to dependent variable. The regression test result can be seen from Table 1 and Table 2:

Table 1. F Test

Model	Sum of Squares	Df	Mean Square	F	Sig.
		ANOVA[a]			
Regression	136.772	4	34.193	17.704	0.002[b]
Residual	11.588	6	1.931		
Total	148.360	10			

Source: Primary data, 2020 (Processed)

Table 1 show the value of F test results is 0.002, so it can be concluded that CAR, FDR, NPF and BOPO simultaneously have influence on ROA. F test was carried out to determine the effect of the independent variable to the dependent variable simultaneously.

Table 2. Regression Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	15.730	4.026		3.907	0.008
CAR	0.138	0.022	2.656	6.349	0.001
FDR	0.043	0.033	0.329	1.294	0.243
NPF	0.408	0.326	0.211	1.250	0.258
BOPO	-0.252	0.034	-2.466	-7.362	0.000

The header row "Coefficients[a]" spans the table.

Source: Primary data, 2020 (Processed)

Table 2 shows the results of the partial independent influence test. The partial test results are two performance ratios that have a significant influence on the ROA ratio, namely CAR and BOPO, respectively 0.001 and 0,000. The ratio of FDR and NPF shows the opposite results which have no effect on ROA, respectively 0.243 and 0.258.

Based on Table 2, CAR has a positive impact on ROA, this shows that the condition of Islamic bank capital is able to withstand the level of possible risk of loss caused by the COVID-19 pandemic. Based on the result we can conclude that 1% increases in CAR will be caused the change in ROA by 0.138%. This positive result is related to research by Shiang Liu (2013) which shows that in the banking sector, CAR has a positive impact on ROA. The same results also with the studies of Widati (2012), Damayanti & Savitri (2012), Rokhim & Harmidy (2013), and Doloksaribu (2013) found that CAR had a positive effect on ROA.

According to Table 2, BOPO appears with negative sign, 1% increases in BOPO will decrease the ROA about 0.252%. This result is similiar with the research of Purwoko & Sudiyatno (2013) and Prasanjaya & Ramantha (2013) which stated that operational costs from operating income have a negative effect on asset returns. If BOPO ratio is more than 1, it means the bank is less healthy. The higher the cost of the bank's income means that its operational activities are increasingly inefficient, so its income is also small. In other words BOPO affected negative significantly related to bank profitability.

Data from Table 1 also shows that FDR and NPF do not have influence on ROA, which explains that basically financing expansion that is not followed by productive asset quality (NPF) will have impact on the profitability of Islamic banks. This study supports previous findings (Said & Ali, 2016; Christaria & Kurnia, 2016; Nahar & Prawoto, 2017), which show there is negative relationship between FDR and NPF on profitability.

These findings at least provide a difference with previous research which states that CAR and BOPO partially have no influence on ROA (Ardana, 2018; Syakhrun et al., 2019; Raharjo et al., 2020). This finding is also directly proportional to 2020 (January-March) 2020 report data from 11 Islamic

commercial banks showing the CAR and BOPO of all sharia banks in a healthy condition (see Graph 1).
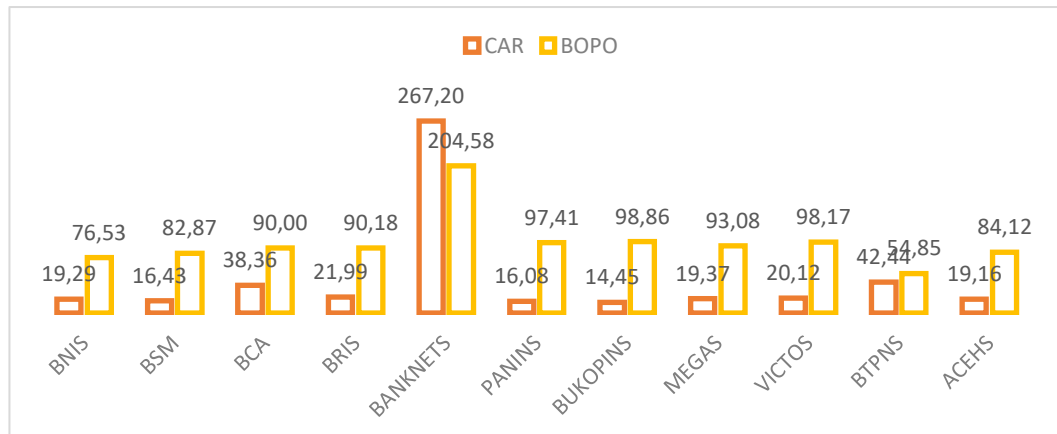
Graph 1. Capital Adequacy Ratio (CAR) and BOPO

During the COVID-19 pandemic, the Islamic banks' FDR level grows above the banking average. On the contrary, some Islamic banks were explained by increasing NPF such as Bank Bukopin Syariah, BRI Syariah and Bank Victoria Syariah respectively at 6.23%, 5%, and 4.89% (see Graph 1).

The results of this study could be a policy choice for Islamic banks in planning Bank Business Plans related to performance. This study also shows that Islamic banks have been shown to be able to maintain financial performance even during the COVID-19 pandemic and confirmed that the Financial Services Authority policy package made a positive and significant contribution when research findings were conducted (Wahyudi et al, 2017; Wahyudi & Riduwan 2019).

5. Conclusion and Suggestion

According to the results shown in this study, some of insights can be used as conclusions. In seeking investments in Capital Adequacy Ratio (CAR), Financing Deposit Ratio (FDR), Cost-to-Income (BOPO), Non-Performing Financing (NPF) to profitability of Islamic banks. Then the conclusion can be explained as follows: First, Capital Adequacy Ratio (CAR) significantly positive effect on ROA. This result can be seen from the t test with a significance level of 0.001 (< 0.05). Then, it can be said that CAR has an influence on ROA. Second, Financing to Deposit Ratio (FDR) appears with insignificant results on ROA. The significance value is 0.243 which means it is greater than 0.05. Therefore, it can be said that FRD has no effect on ROA.

Third, Non-Performing Financing (NPF) variables also appear with insignificant results on ROA. The significance value is 0.258 which means it is greater than 0.05. Hence, it can be said that NPF has no effect on ROA. Fourth, Cost to

Income (BOPO) appears with a negative sign towards ROA. With a significance value of 0,000 (< 0.005), it can be said that BOPO has a significant effect on ROA. During the COVID-19, Islamic bank performance indicators continued to show quality and aggressive performance growth.

These findings have practical implications for the community, making it possible to continue using Islamic banking services despite the COVID-19 pandemic. Macroeconomic factors such as inflation and Gross Domestic Product (GDP), or microprudential factors such as Third-Party Funds (TPF), Net Operating Margin (NOM), Return On-Equity (ROE) and Net Rewards (NI) are highly recommended for future research.

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45

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