Analysis of the Effectiveness of Islamic Banks in Indonesia Period 2010-2019

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Abstract. The purpose of this study is to analyze the activities of Indonesian sharia banking institutions before the merger. BSI of state-to-state bank financial ratios revealed in Sharia Bank report. The design/methodology/approach used was regression analysis of panel data, which is a combination of time series data over time periods. Cross- sectional data comprising 2010-2019 and Muamalata. Shariah, BNI Shariah, BRI Shariah, Maybank Shariah, Mega Shariah, BCA Shariah. Conclusion. The results of this study show that the variables CAR and NIM partly differ. This has major consequences for the efficiency (ROA) of Islamic banks. Variables NPF and FDR also have a significant impact on bank performance (ROA) in part.

Keyword: ROA, AUTO, NPF, FDR, NIM

1 Introduction

According to the Banking Act No. 10 of 1998 of the Republic of Indonesia, banking is anything related to banking activities, including institutions, business activities, and business methods and processes. On the other hand, a bank is an organization that collects money in the form of savings for the society and distributes it among the population in the form of credit, etc. to improve the standard of living of ordinary people.

A bank is a financial institution whose main function is to collect funds from the public and distribute them to the public or act as an intermediary. Banks must maintain their effectiveness to build trust in communities so that they can fulfill their role as drivers of development, promoting economic growth, employment and improving the well-being of the population. If bthaenk can optimally improve its business operations, the public's trust in the bank is justified.

Banking is a financial institution that plays an important role in the Indonesian financial system. The existence of the banking sector plays an important role, and most of the banking sector is involved in the services of the banking sector in people's lives. Pinasti and Mustikavati, (2018).

Islamic banks operate on the principles of Sharia law, avoiding the practice of usury and engaging in investment activities based on the distribution of profits from trade finance. The Islamic banking sector is part of the country's banking system, which plays an important role in the economy. In particular, the role of Islamic banks serves as a link for the new nationalism. It means becoming an intermediary in the economic business networks of the people, strengthening the economy of the people, encouraging less speculation in the financial markets and facilitating the distribution of income. Improve the efficiency of money transfers (Muhammad, 2005).

Operating on the principle of profit sharing, the features of the Sharia banking system not only provide a mutually beneficial alternative banking system for communities and banks, but also promote fairness in transactions, ethical investments, solidarity values, brotherhood in production and the prevention of speculative transactions. activity in financial transactions. Given the importance of Islamic banking functions and roles in Indonesia, Islamic banks need to improve their operations to create a bank with sound and efficient Sharia principles. Suryan (2016)

The efficiency of the bank is reflected in the state of the bank itself. The soundness of a bank is the ability of the bank to carry out its normal banking activities and properly discharge all its obligations in accordance with the applicable rules1. The health of a bank is a value that all banks must uphold. This is because the health of a bank erodes the confidence of its customers, shareholders, the government, the Bank of Indonesia and the general public. A bank's solidity is also important for streamlining management and increasing profitability. Mimivati (2016).

Performance evaluation is an important factor in determining whether a bank is performing well. Financial performance estimates can also be used to

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compare the level of profitability and profitability for a given year. In general, the bank's financial performance can be judged by its financial statements, obtained as a result of Wahyuni's calculation of financial ratios. Prativi and Viagustini (2016).

Some of the factors that affect the bank's performance are CAR, NPF, NIM, and FDR. The solvency ratio (CAR) is a financial ratio related to a bank's capital that affects a bank's ability to operate effectively. If the bank's capital can cover unavoidable losses, the bank's assets (the assets of the shareholders) can be expected to increase, and vice versa, as the bank can effectively manage all its operations (Hutagalung, Djumahir, & Ratnawati, 2013).

In this study we use ROA (return on assets) as a dependent variable. This is because ROA is used to measure the effectiveness of financial institutions in using their assets to make a profit. The explanatory variables used in this study are those from previous studies that have had the greatest impact on the performance of financial institutions. These variables include capital adequacy ratio (CAR), net interest spread (NIM), loan-to-deposit ratio (FDR), and non-performing loans (NPF).

The purpose of this study was to determine the performance of Islamic banking institutions in Indonesia prior to their merger with BSI: Muamalat. Shariah, BNI Shariah, BRI Shariah, Maybank Shariah, Mega Shariah and BCA Shariah. The problem formulation used in this study is as follows:

1. How the capital adequacy ratio (CAR) affectsproductivity (ROA)
2. How does bad debt (NPF) affect productivity (ROA)?
3. What is the relationship between deposit credit (FDR)and productivity (ROA)?
4. What is your net income (NIM) versus productivity(ROA

2 Literrature Review

Sukmana & Febriyati (2016) investigated the performance of Islamic and traditional banks: capital adequacy, profitability, levels of financial intermediation, problem loans and non-performing loans. Years of experience in the banking sector is important for achieving higher profits, some of which are considered additional capital. In addition, banking services are also important in attracting consumers. NPF, FDR and BOPO supported Islamic banks because of the lack of results in the financial market. This is due to the fact that Islamic banks were forced to allocate funds for financing. In addition, the central bank's Islamic banking rules on intermediate-based reserve requirements will also help banks improve their operations.

Another study by Mismiwati (2016) showed that the key metrics CAR, NIM, ROA, LDR and NPL influence bank performance. Partial test results of BOPO variables have a significant negative effect on ROA, while variable credit-to-debt ratios (LDR) have a large positive effect on return on assets (ROA). The variables CAR and NIM have no significant positive effect on ROA. On the other hand, non-performing loans (NPL) have no significant negative impact on return on assets (ROA).

According to a study by Manurung (2015), BOPO, CAR, NIM and NPL results have a statistically significant impact on ROA (return on assets), while LDR does not. Christianti and (Jovin, 2016) show in their findings that there are important factors that influence the performance of public banks. These are operational efficiency, net interest margin and bad debt. For commercial banks, these factors are CAR and operational efficiency. The results support the efficiency theory, the signal theory and the relative market power hypothesis. The result is expected to improve the performance of Indonesian public and private banks.

3 Research Method

3.1 Facts

The study uses panel data from six Islamic financial institutions from 2010 to 2019. At the time, six Islamic banking institutions were considered: Muamalat Shariah , BNI Shariah, BRI Shariah, Maybank Shariah, Mega Shariah and BCA Shariah. The sampling in this study uses improbability with purposeful sampling. It is in fact based on the availability of data in the financial statements of Islamic banks in the relevant network.

Table 1. Working variable

Variable		Meaning	Source
endogenous	return on investmentin advertising	used to measure the ability of a bank's managementto deliver profitability and manage bank performance.	Islamic banking financial statements
exogenous	car-	Capital adequacy measures the bank's ability to holdsufficient capital and the bank's ability to identify, monitor and control risks that could affect the bank'scapital level.	Islamic banking financial statements
	NPF	defined as the risk arising from the other party's failure to fulfill its obligations.	Islamic banking financial statements
	FDRLake	A bank's liquidity can be represented by LDR (Loanto Deposit Ratio), Loan to Third Party Comparison (DPK).	Islamic banking financial statements
	net interest margin	*Net interest margin (NIM) is a ratio that reflects theability of a bank's management to manage its productive assets and generate net interest income.*	Islamic banking financial statements

3.2 Research Methods

This study uses descriptive quantification methods that test for internal and external variables using panel data regression. This study looks at correlations between exogenous and endogenous variables. Thus, the exogenous variables are CAR, NPF, FDR, NIM, and the endogenous variable is banking performance (ROA).

The model used in this study is Pooled Least Squares (PLS) using the Eviews 9 application. Pooled Least Squares is the simplest way to evaluate panel data by combining only time series and cross-sectional data. This means that the intercepts and coefficients of the model do not change depending on the person and time. Liu, Zhang and Feng (2019).

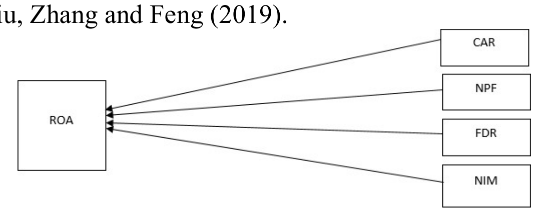

Fig. 1 Analysis Model

3.3 Conceptual basis of the research

$$Y = \alpha + Q_1X_1 + Q_2X_2 + Q_3X_3 + Q_4X_4 + s \ldots\ldots (1)$$

Information:

This means that the intercepts and coefficients of the model do not change depending on the person and time. Liu, Zhang and Feng (2019)

H1 = CAR negatively affects bank performance (ROA)
H2 = NPF positively impacts bank performance (ROA)
H3 = FDR negatively impacts banking performance (ROA)
H4 = Net interest margin has a positive effect on the bank's performance (ROA).

Panel data approach models used to obtain the most appropriate models in the analysis of the impact of CAR, NPF, FDR and NIM on the activities of Islamic banks in Indonesia:

$$(TA)_{it} = \alpha + Q_1CAR_{it} + Q_2NPF_{it} + Q_3FDR_{it} + Q_4NIM_{it} + s \quad (2)$$

TA : Kinerja Bank (ROA)
CAR : solvency ratio
NPF : NPL _
FDR : loan-to-deposit ratio
field : Net profit margin

4 Results and Discussion

4.1 Result

The aim of this study is to determine the impact of CAR, NPF, FDR and NIM on the activities of Islamic banks in Indonesia. Panel data regression was first tested with Chow and Houseman tests to find a suitable model for this study.

Table 2. Chow and Houseman Tests

Test type:	probability	Hypothetical result
Butterflytest	0.0000	Reject H 0 b y FEM
Houseman Test	0.0000	Reject H 0 b y FEM

The probability value obtained for the Chow test in Table 2 is 0.0000. This result is 5% below the actual level used in this study and there is sufficient evidence to reject H0. The test results show that the fixed effects model is acceptable compared to conventional effects. In addition, the results of the Houseman test show a probability value of 0.0000, which is below the 5% level, so there is enough evidence to reject the H0 hypothesis. Chow and Houseman's test solution shows that the FEM model is the best approach

Tabel. 3 Regression Results Of Data In The Least Squares Panel

Valiable	FEM
FROM.	8.467667 (0.0004)
car-	-0.004361 (0.9004)
NPF	0.006122 (0.0001)
FDRLake	-0.064127 (0.0001)
net interest margin	0.092246 (0.7041)
coefficient of determination	0.684538
adjusted coefficient of determination	0.631067
F statistic	12.80260
Probability (F statistic)	0.00000
Statistics of Durbin Watson	1.067405

Table 3 shows the results of this study. Least squares panel fixed effects, but CAR and NIM were negligible. The variables found to be significant we're banking performance variables (ROA), NPF, and FDR.

Tabel 4. Regression Results For Panel Data Based On Relationships And Significance

Variable	Found Relationships	Meaning
car-	minus (-)	not related
NPF	positive (+)	important
FDR Lake	minus (-)	important
net interest margin	positive (+)	not related

Table 4 shows that CAR has a negative impact and is not significant. For NPF variables, there is a significant positive effect and for FDR variables, this has a significant negative effect, and the last variable, the net interest margin, also has a positive effect on the performance of the Indonesian bank (ROA), but not significantly. Indonesia.

4.2 Discussion

4.2.1 Impact Of Capital Adequacy Ratio (CAR) OnBanking Performance

The results showed that the capital adequacy ratio (CAR) had no significant impact on return on assets. CAR is a self-assessment that measures a bank's ability to hold sufficient capital and the ability of Islamic banking management to measure, monitor and control emerging risks that may affect an Islamic bank's capital level. The capital situation of Islamic banks was also very good from 2008 to 2017, well above the minimum CAR threshold of 8%. This condition explains that Islamic banks depend on loans as a source of income and do not use all their capital to increase their profitability. These are the causes of CAR andfactors that do not significantly affect the profitability ofIslamic banks.

In this study, studies by Hutagalung, Djumahirand Ratnawati (2013) and Misiwati (2016) confirm that CAR has a negative and negligible effect on ROA. The solvency ratio (CAR) measures a bank's ability to hold sufficient capital. The main activity of the bank is raising funds and returning them in the form of loans.

Banks can operate profitably if they have sufficient capital or meet the requirements. Banks can also make large loans, and by having sufficient assets as collateral for third-party funds placed with a bank, they can increase public confidence. Higher CAR Means Better Banking Performance by Kristianti & Yovin, (2016).

The results of this study are not consistent with the hypothesis that the capital-to-assets ratio (CAR) has a positive and significant effect on return on assets (ROA), so the hypothesis is not accepted.

4.2.2 The Impact Of Non-Performing Loans (NPF) On The Bank's Business

The results of this study show that NPLs have a significant impact on return on assets (ROA). The findings are in line with those of Hutagalung, Djumahir and Ratnawati (2013) and Bhatia, Mahajan and Chander (2012), who concluded that NPFs have a significant impact on the ROA of banks. A large number of non-performing loans reduces the profitability of financial institutions. Islamic banks are considered to be very careful in maintaining high quality productive assets as they have an NPF of less than 5, but in order to mitigate the risks of credit (high NPF), fee income plays an important role. High asset management or non-loan income can cover losses due to credit risk. This ratio reflects the bank's ability to withstand the risk of loan repayment by its borrowers. After granting a loan, banks must monitor the use of the loan, as well as the debtor's assets and compliance with its obligations. Banks become less profitable if they are in debt or fail to pay. Positive and significant impact on return on assets (ROA) as the hypothesis is accepted.

4.2.3 Impact Of Loan-To-Deposit Ratio (FDR) On Bank Performance

The results show that FDR (Finance to DepositRatio) has a significant impact on ROA. This means thatthe confidence rate of Islamic banks ranges from 85% to 100%. If Islamic banks increase their lending obligations and increase their LDR ratio, they will become more profitable and improve their ROA, but Islamic banks will have to maintain the quality of their loans to avoid problems, which is a burden. In this study, the higher the FDR value, the higher the performance (ROA), and vice versa, the lower the FDR value, the lower the performance (ROA).) Islamic banks.

The results of this study are consistent with the hypothesis that financial ratio to deposits (FDR) has a significant negative effect on return on assets (ROA), making this hypothesis plausible.

4.2.4 Impact of Net Interest Margin (NIM) on Banking Performance

The results of this study show that the net interestmargin (NIM) has no significant effect on the ROA. The findings support the findings of the Misiwati study (2016). The ROA ratio is derived from pre-tax profit over bank assets. Our profit is not only affected by net interest income, but also by other operating income and expenses. Not every increase in net interest income of Islamic banks leads to an increase in profits, and not every decrease in net interest income leads to a decrease in profits of Islamic banks. This is because the revenues of Islamic banks depend on the operational costs that have to be borne depending on the activities of Islamic banks. The net interest margin represents the interest income received from loans granted by banks. A bank, as a type of business, is an enterprise engaged in providing loans to other parties. The bank's advantage is thus determined by the interest income it earns. Christianti & Yovin (2016).

The results of this study are not consistent with the hypothesis that net interest margin (NIM) has a positive and significant effect on return on assets (ROA), so this hypothesis is not accepted

5 Conclusion

Based on the above analysis results, it can be concluded that

1. Variables CAR and NIM have no significant impact on the performance (ROA) of partially Islamic banks.
2. In addition, the variables NPF and FDR partly have a significant impact on the bank's ROA

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