

Influence of Capital Adequacy Ratio, Financing Risk, Cost Efficiency, Liquidity and Net Interest Margin on Profitability at BNI Syariah Period 2011-2019

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Article Info	Abstract
Received April 22,2022	<i>The purpose of this research is to test and analyze the influence of capital adequacy ratio, financing risk, cost efficiency, liquidity and net interest margin towards profitability in BNI Sharia Bank period 2011-2019, the number of samples in this study is the reason for using Bank BNI Syariah as a sample of this research: Bank BNI Syariah operates in Indonesia in 2011-2019 and registered with Bank Indonesia (BI). Bank BNI Syariah publishes Trwiulannan financial statements in full and publish in the period 2011-2019. Data analysis uses multiple linear regression to test and prove research hypotheses, research results show capital adequacy, liquidity and net interest margins against profitability have no effect on the profitability evidenced by the significance of those variables more than 0.05. While financing risks and cost efficiencies have significant effect on profitability because of the significance of those variables less than 0.05. The magnitude of the effect of the predictor variable on profitability using the coefficient of determination obtained by 66.9% while the remaining33.1% is influenced by other variables outside this research model.</i>
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INTRODUCTION

Bank performance is a measure of the competitive ability of business activities of the bank itself. Banks can measure the ability of banks to obtain income to cover the risks that occur in banks. There are many ways to measure the ability of banks to make a profit, one of which is profitability.

Profitability has an important meaning in the effort to maintain its survival in the long run, because profitability shows whether the business

entity has good prospects in the future. The higher the profitability of a bank, its survival will be more guaranteed. Therefore, a bank must be able to manage finances well in order to get maximum profitability.

Profitability can be interpreted as one indicator to measure the performance of a company (Harahap, 2008). Profitability can also be interpreted as the company's ability to generate profits for a certain period. For the Financial Services Authority profitability is also used in assessing the soundness of banks as the focus of OJK supervision on banks and the means of supervisory authorities in setting strategies.

The profitability measure used is Return On Assets (ROA). Return On Assets (ROA) is a ratio used to determine the ability of banks to generate profits from managing assets owned by banks (Umam, 2013). This is because, the ability of ROA in measuring and calculating bank management to generate profits by using all assets owned. The greater the ROA, the greater the benefits obtained by the bank in terms of asset use (Dendawijaya, 2009).

Capital Adequacy shows the ability of banks to maintain sufficient capital and the ability of management to identify the risks of losses caused by bank operations and affect the amount of capital owned by banks. This will increase public confidence because banks have adequate capital.

Capital Adequacy Ratio (CAR) is an indicator used to measure the level of bank capital adequacy. The greater the CAR, the greater the bank's opportunity to generate profits. Because with large capital owned by banks when used for profitable investments, will get a greater profit. The low CAR is due to an increase in the expansion of risk assets that are not matched by additional capital reducing the opportunity for banks to invest and reducing public confidence so that it affects the decline in profitability.

To measure the level of financing problems faced by Islamic banks using financing risks. In addition to being a source of bank income, financing activities are vulnerable to risks that can be one. The main cause of banks facing problems and leading to bankruptcy. A common problem in lending activities is the inability of customers to carry out their obligations to credit providers (Prasetyo, Dwi Agung et al, 2015).

Non Performing Financing (NPF) is a financial ratio related to the amount of credit risk (financing) experienced by a bank. Credit risk (financing) is one of the bank's risks, which results from not repaying loans or investments that are being made by the bank (Muhammad, 2005). The higher the NPF of a bank, the worse the quality of Islamic bank financing is. Because the high level of the NPF can reduce cash inflows caused by non-performing financing due to non-repayment of loans given by banks. So that the capital adequacy for investment is reduced and the level of profitability decreases. Non Performing Financing (NPF) is an NPL version for Islamic banks.

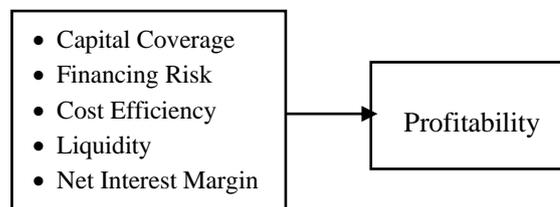
In carrying out its operational activities operational efficiency is needed because it involves the costs incurred by the bank and also the income received by the bank. Operating Costs to Operating Income (BOPO) is often called the efficiency ratio which is used to measure the ability of bank management in controlling operational costs to operating income.

This ratio aims to measure the ability of operating income to cover operational costs. The smaller the BOPO shows the more efficient the bank is in carrying out its business activities. The higher the cost of bank income, it means that its operational activities are increasingly inefficient so that the income is also getting smaller and ultimately has an impact on decreasing bank profitability.

The high level of liquidity will also cause profitability to be low, and vice versa. When a company is able to provide a large enough loan to the community, this can attract attention in the eyes of the community. Widely used in Islamic banks, in Islamic banking do not know the term credit but financing. Therefore the indicator used to measure liquidity ratios is FDR (Financing to Deposit Ratio) The higher this ratio the better the level of bank health. Because if the deposit obtained is high, the capital adequacy owned by the bank is also high, then the financing channeled by the bank for investment will be smooth and profitability will also increase.

NIM can be used to measure the level of bank management in obtaining revenue from revenue sharing by looking at the performance of banks in channeling financing. In addition, Net Interest Margin (NIM) can be interpreted as a ratio used to measure the ability of banks to manage their productive assets to generate net interest income. Bank Indonesia set a standard for NIM ratios above 6%. The higher the NIM ratio will increase interest income on productive assets managed by the bank concerned so that profitability will increase.

The framework of thought in this study can be seen in the following figure:



Based on the picture of the above framework, the research hypothesis can be formulated as follows:

Hypothesis 1: Capital Coverage affects profitability.

Hypothesis 2: Financing Risk affects profitability.

Hypothesis 3: Cost Efficiency affects profitability.

Hypothesis 4: Liquidity affects profitability.

Hypothesis 5: Net Interest Margin affects profitability.

METHODS

This research uses a quantitative research approach. Quantitative research, emphasis on testing theories through measurements of the study variables with numbers and perform statistical data analysis procedures.

The sample of this research is BNI Syariah Bank. Reasons for using BNI Syariah Bank as a sample of this study: BNI Syariah Bank operated in Indonesia in the period 2011-2019 and was registered with Bank Indonesia (BI). Bank BNI Syariah published a full quarterly financial report and published it in the 2011-2019 period.

The analysis technique used in this study is multiple linear regression analysis using the Eviews program. This study using multiple linear regression analysis. This analysis is used to examine the effect of Capital Adequacy Ratio, Financing Risk, Cost Efficiency, Liquidity and Net Interest Margin on Profitability at BNI Syariah Bank.

The dependent variable is a variable whose value is influenced by the independent variable. In this study the variable used is profitability. Profitability in this study is proxied by Return On Assets (ROA).

Profitability is formulated as follows:

$$\text{Return on Asset (ROA)} = \frac{\text{net profit}}{\text{Total Assets}}$$

Independent variables or independent variables are variables that will help explain and variables that affect variables. The independent variables in this study are Capital Adequacy, Financing Risk, Cost Efficiency, Liquidity and Net Interest Margin.

Capital Adequacy in this study is proxied by Capital Adequacy Ratio (CAR). Capital Adequacy Ratio is formulated as follows:

$$\text{Return on Asset (CAR)} = \frac{\text{Capital}}{\text{risk weighted assest}}$$

Financing Risk in this study is proxied by Non Performing Financing (NPF). Financing Risk is formulated as follows:

$$NPF = \frac{\text{capproblematic financing}}{\text{Total financing}}$$

Cost Efficiency in this study is proxied by Operational Costs on Operational Revenues(BOPO).

$$BOPO = \frac{\text{Operating costs}}{\text{Operating Income}}$$

Liquidity in this study is proxied by Financing To Deposit Ratio (FDR). Liquidity is formulated as follows:

$$FDR = \frac{\text{Amount of Funds Given}}{\text{Total Third Party Funds}}$$

Net Interest Margin in this study is proxied by Net Interest Margin (NIM). Net Interest Margin is formulated as follows :

$$\text{Net Interest Margin (NIM)} = \frac{\text{net interest income}}{\text{average productive assets}}$$

RESULTS AND DISCUSSION

Classical Assumption Testing

1. Multicollinearity Test

Based on the results of the multicollinearity test conducted with Eviews obtained the following results:

Table 1. Multicollinearity Test

	NPF	BOPO	FDR	NIM
CAR	0.416885	-0.603847	-0.520646	-0.337539

Based on the multicollinearity test results in the above table, it can be seen that the correlation of CAR with NPF is 0.416885; CAR with BOPO of -0.603847; CAR with FDR of -0.520646 and CAR with NIM of -0.337539. So it can be concluded there are no variables that have a correlation value above 0.8, thus that the regression model used does not have a multicollinearity problem.

2. Heteroscedasticity Test

Based on the results of the heteroscedasticity test conducted with Eviews obtained the following results:

Table 2. Heteroscedasticity Test

	Heteroskedasticity Test : White
Prob Value Chi-Square	0.416885

From the results of the heteroscedasticity test using the white method, the prob value of 0.0679 > 0.05 so that it can be concluded that there are no symptoms of heteroscedasticity in the study mode.

3. Normality test

Table 3. Normality Test

	Normality Test
Jarque probability	0.416885

From the test results above it can be seen that the Jarque probability value is $0.418264 > 0.05$, meaning that the research data residuals are normally distributed.

4. Autocorelation test

Table 4. Autocorelation Test

Breusch-Godfrey Serial Correlation LM Test	
F-Statistic	1,900436
Obs R-Squared	4,336438
Prob-F	0,1697
Prob. Chi-Square	0,1144

Autocorrelation can be known through the Breusch-Godfrey Test, where if the value of prob < 0.05 then autocorrelation symptoms occur while if the value of prob > 0.05 then autocorrelation symptoms do not occur is a test used to test the presence or absence of a serial correlation in the regression model or to find out whether in the model used there is an autocorrelation between the observed variables.

From the autocorrelation test results above, it can be seen that the prob is $0.1144 > 0.05$, so it can be concluded that there are no autocorrelation symptoms in the research model. In addition to using the LM Test, it can also use Durbin-Watson. The Durbin-Watson value is 1.935626. This value is usually called the DW count. This value will be compared with the acceptance or rejection criteria that will be made with dL and dU values determined based on the number of independent variables in the regression model (k) and the number of samples (n). The dL and dU values can be seen in the DW Table with a significance level of 5% ($\alpha = 0.05$). The Durbin-Watson table shows that the dL value = 1.1755 and the dU value = 1.7987. The calculated DW value of 1.935626 is greater than the value of dU = 1.7987 and smaller than 4- dU = 2.2013 which means it is in an area without autocorrelation.

The results of autocorrelation testing using two approaches give the same results, so it can be concluded that in the linear regression model that is expressed does not contain autocorrelation. This means that the

fulfillment of the classical assumptions of the linear regression model has been carried out.

5. Hypothesis test

Table 5. Hypothesis Test

Dependent Variable: D(Y(-1))
Method: Least Squares
Sample (adjusted): 2011Q3 2019Q4
Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.003763	0.034927	-0.107735	0.9150
D(X1CAR(-1))	-0.005238	0.017331	-0.302228	0.7647
D(X2NPF(-1))	-0.463367	0.143443	-3.230314	0.0032
D(X3BOPO(-1))	-0.028152	0.003606	-7.807022	0.0000
D(X4FDR(-1))	0.010587	0.007972	1.327938	0.1949
D(X5NIM(-1))	-0.047714	0.068623	-0.695305	0.4926
R-squared	0.719171	Mean dependent var		-0.044412
Adjusted R-squared	0.669023	S.D. dependent var		0.347756
S.E. of regression	0.200066	Akaike info criterion		-0.221551
Sum squared resid	1.120742	Schwarz criterion		0.047806
Log likelihood	9.766372	Hannan-Quinn criter.		-0.129693
F-statistic	14.34098	Durbin-Watson stat		1.576191
Prob(F-statistic)	0.000001			

From the Eviews output, the resulting regression models are:

$$Y = -0.003763 + (-0.005238 \text{ CAR}) + (-0.463367 \text{ NPF}) + (-0.028152 \text{ BOPO}) + 0.010587 \text{ FDR} + (-0.047714 \text{ NIM})$$

From the above model interpretation can be made as follows :

- Capital Adequacy regression coefficient value of 0.005238 but the value of Prob = 0.7647 is greater than 0.05. So it can be said that each additional Capital Adequacy has no effect on profitability.
- Every additional 1 Financing risk can reduce the Profitability by -0.4633678 Financing risk or round up to 46.33%.
- Every additional 1 Cost efficiency can reduce Profitability by -0.028152 Cost efficiency or round up to 2.81%.
- liquidity regression coefficient value of 0.010587 but the value of Prob = 0.1949 is greater than 0.05. So it can be said that each addition of liquidity has no effect on profitability.
- Net Interest Margin regression coefficient value of -0.047714 but the value of Prob = 0.4926 is greater than 0.05. So it can be said that each addition of Net Interest Margin has no effect on profitability

F test

F test results can be seen in the table above. Prob value. F (Statistic) of 0.000001 is smaller than the 0.05 significance level so that it can be concluded that the estimated regression model is feasible to use to explain the effect of Capital Adequacy, Financing risk, Cost efficiency, liquidity and NIM has a proportion of influence on profitability

T test

T test results can be seen in the table above. If the value of prob. t arithmetic (shown in Prob.) is smaller than the error rate (alpha) 0.05 (which has been determined) then it can be said that the independent variable has a significant effect on the dependent variable, whereas if the value of prob. t arithmetic greater than the error rate of 0.05, it can be said that the independent variable has no significant effect on the dependent variable

Prob value t count from the Capital Adequacy for the value Prob = 0.7647 is greater than 0.05. So it can be said that Capital Adequacy has no effect on profitability. Prob value t calculate from the Financing risk of the value Prob = 0.0032 less than 0.05. So it can be said that Financing risk influences profitability. Prob value t count from Cost efficiency for the value Prob = 0.0000 greater than 0.05. So it can be said that Cost efficiency affects profitability. Prob value t arithmetic from liquidity for Prob = 0.1949 is greater than 0.05. So it can be said that liquidity has no effect on profitability. Prob value t count from the Net Interest Margin for the value of Prob = 0.4928 greater than 0.05. So it can be said that NIM has no effect on profitability.

Adjusted R² Test

The adjusted R² test is intended to assess how much the ability of the independent variables to explain the dependent variable. In this study, the coefficient used is the adjusted determination coefficient or adjusted R². It is known that the Adjust R Squared value is 0.66903. shows that the proportion of the effect of the Capital Adequacy, Financing risk, Cost efficiency, liquidity and Net Interest Margin variables on the profitability variable is 66.90%. That is, Capital Adequacy, Financing risk, Cost efficiency, liquidity and Net Interest Margin have a proportion of influence on profitability of 66.90% while the remaining 33.10% is influenced by other variables that are not in the regression model.

Interpretation of research results

Based on the results of the research on the variable Capital Adequacy in the first hypothesis test acquired significance value is greater than 0.05 (0.7647 > 0.05). This means that H1 is rejected, indicating Capital Adequacy has no effect on profitability. Thus the higher the Sharia banking Capital Adequacy could not be the benchmark for the success of the bank in its investment activity. In other words the increase in Capital Adequacy is not a factor that causes increase in profitability. Capital Adequacy has no effect on the profitability assessed because the bank is less than the maximum in using capital in investments. Because Bank Indonesia regulation requires Capital Adequacy minimum of 8% so the bank always try to keep the Capital Adequacy owned in accordance with the provisions.

Based on the results of the research on the variable Financing risk in

the second hypothesis test acquired significance value is less than 0.05 ($0,0032 < 0.05$). Negative values in this illustrates the higher the ratio, indicating the quality of Sharia bank financing is getting worse.

Based on the results of the research on the variable Cost efficiency in the third hypothesis test acquired significance value is less than 0.05 ($0,000 < 0.05$). This means that the H3 is acceptable, indicating that Cost efficiency has significant effect with a negative direction towards profitability.

The results of this test indicate the negative value shown by Cost efficiency in accordance with the underlying theory that the smaller the Cost efficiency shows the more efficient the bank in carrying out its business activities. The efficiency of the operation of a company (In this case BNI Sharia Bank) is a very important factor for the company's survival. In accordance with its function as a party of intermediation, the efficiency of a bank greatly affects the large return to be gained. The more efficient the bank's operations, the more profit the bank will get. The level of efficiency of the bank in running its operations, affects the level of income generated by banks. Any increase in the operating costs of banks not followed by increased operating income will result in will result in a decrease in profit before tax, which will eventually lower profitability.

Based on the results of the research on liquidity variables in the fourth hypothesis test acquired significance value was greater than 0.05 ($0,1949 > 0.05$). Thus the higher bank liquidity can not be the benchmark of the success of the bank in its activity for the outcome. In other words the increase in liquidity is not a factor that leads to increased profitability. This is rated because the bank is less than the maximum in using third-party funds in financing. Banks are assessed to use assets for their customers ' financing.

Based on the results of the research on Net Interest Margin variables in the five hypothesis test acquired significance value was greater than 0.05 ($0,4926 > 0.05$). Net Interest Margin does not affect profitability, indicating that changes in interest rates and the quality of productive assets of banking can add profit. The Bank has taken a cautious action in providing credit so that the quality of productive assets is maintained. With a good quality of credit can increase net interest income so that ultimately affect the profit before tax so that profitability is increasing. (Harun , 2016)

CONCLUSIONS

Based on the results of data analysis and discussion of research results can be concluded as follows:

Capital adequacy has no significant effect on profitability. The results of hypotheses 1 Test show significance of 0.7647 more than 0.05 ($P > 0.05$). So the H1 is rejected.

Financing risk has significant effect on profitability. Hypothesis 2 testing results show a significance value of 0.000 less than 0.0000 ($P < 0.05$). So H2 is acceptable.

Operational efficiencies have significant effect on profitability. The results of the 3 hypothesis test show the significance value of 0.000 less than 0.0000 ($P < 0.05$). So H3 is acceptable.

Liquidity has no significant effect on profitability. The results of the 4 hypothesis test show significance values of 0, 1949 more than 0.05 ($P > 0.05$). So H4 is rejected.

Net Interest Margin has no significant effect on profitability. The results of the 5 hypothesis test show significance values of 0, 4926 more than 0.05 ($P > 0.05$). So H5 is rejected. .

Limitations of the Research

The limitation in this research is the study using Bank BNI Syariah Quarter 1 year 2011 to quarter IV in 2019, so that if accumulated there are 36 data samples.

The suggestions that can be given for further research are as For further studies it is advisable to include external factors as a research variable, so that the results can contribute to other contributions that affect profitability, further studies are expected to use more sample data.

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