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Profitability and Financing Analysis at Sharia Bank in Indonesia

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ABSTRACT

This research aims to determine the influence of Capital Adequacy, Financing Problems and Asset Quality on the Profitability of Sharia Banks in Indonesia. To determine the number of samples, a purposive sampling technique was used. The data used is secondary data, panels in quarters. Data was obtained from the Financial Services Authority/OJK for the period March 2018 to December 2020. Panel Data Regression analysis techniques with Fixed Effect Models were used to analyze the influence of independent variables on the dependent variable. The results of this research indicate that Capital Adequacy, Problem Financing and Asset Quality simultaneously have a significant effect on profitability. Meanwhile, partial testing shows that the Capital Adequacy and Asset Quality variables do not have a significant effect on profitability. The problematic financing variable has a significant negative effect on profitability. This requires efforts to reduce problematic financing so that efforts to increase the profitability of Islamic banks can be carried out in the future.

Keywords: Capital Adequacy, Problem Financing, Asset Quality, and Bank Profitability.

INTRODUCTION

The current development of sharia banks is in line with the increase in sharia banking activities. This is illustrated by the bank's ability to collect and distribute funds. On the other hand, the development of sharia banks is also supported by public trust in the performance of sharia banks and government support through sharia banking regulations in the country. Efforts to maintain the bank's existence by maintaining the health and performance of the bank are maintained in the future. On the other hand, banks also need to pay attention to factors that influence performance, especially those related to bank profitability. Bank financial performance is a description of financial conditions in a certain period, which includes aspects of fund collection and distribution activities. Performance assessment can be done by measuring financial achievements. One measure used is Profitability.

Bank profitability is the ratio of the bank's ability to generate profits. This ratio explains the level of efficiency and effectiveness of bank operations. Profitability is measured using Return On Assets/ROA. This ratio is obtained from comparing net profit with total assets. The higher the bank's ROA ratio, the higher the level of profit the bank will earn. This ratio also explains the ability to use assets to generate profits. Low levels of profitability have an impact on bank health. One of the bank's goals in maximizing profits is to fulfill its obligations to shareholders. Profit is a measure of management performance. On the other hand, improving performance becomes a management tool to increase investor attractiveness. The higher profits indicate good management performance. There are a number of variables that influence bank profitability, including: capital adequacy, financing risk and asset quality (Simatupang and Franzlay, 2016).

Indicators used to measure capital adequacy is the Capital Adequacy Ratio/CAR, namely the ratio of capital to assets weighted according to risk. This ratio shows the bank's ability to maintain capital adequacy. so that banks can reduce and control risk. The minimum CAR limit is 8 percent. The CAR value indicates the bank's health level and contributes to increasing profitability (Almunawwaroh and Marliana, 2018).

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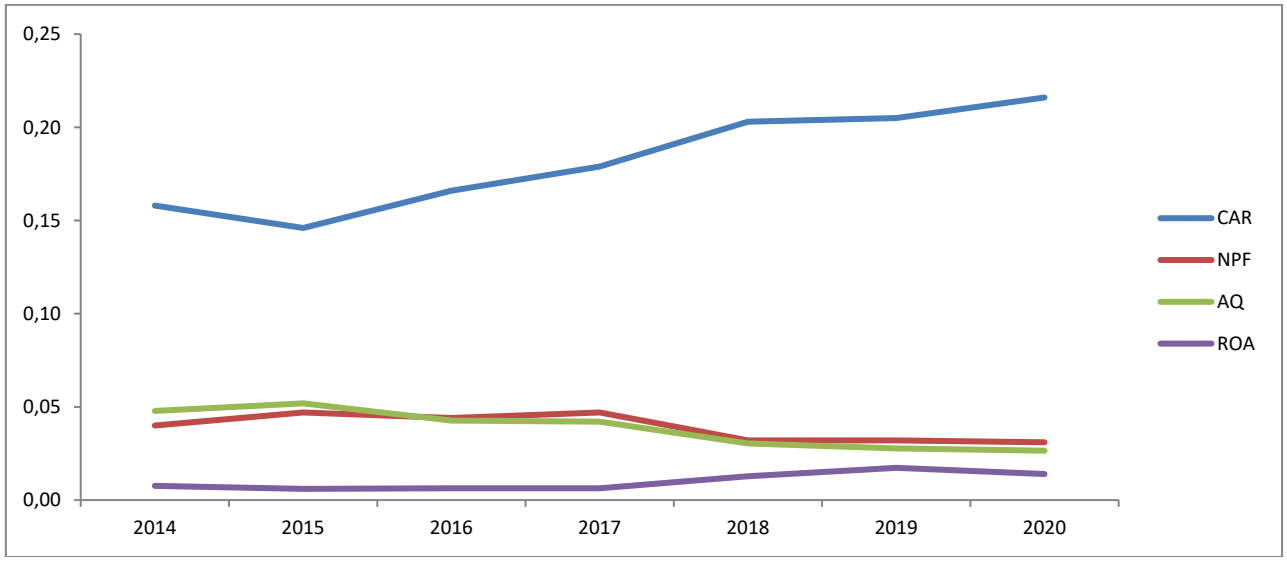
As financing in Islamic banks increases, the risk becomes higher. However, efforts are needed to reduce the risk of expenditure. Any financing provided can, as far as possible, be returned within the specified amount and time. Financing risk is used to measure a bank's ability to manage financing, this is closely related to problematic financing or what is better known as Non-Performing Financing (NPF). The higher the NPF level, the lower the quality of financing. A high NPF ratio indicates a bank's low ability to obtain income from the financing provided, thus affecting profitability (Moorcy et al., 2020).

Asset quality is one variable that also has a big role in increasing profitability. The types of productive assets used for bank operational activities must be in line with increasing profitability. Asset quality/AQ is a measure of a bank's ability to recover funds invested in productive activities. Asset quality is a ratio that has the potential to generate income or cause losses to the bank's productive activities (Pramudita and Kurnia, 2019).



Source: Data processed in 2023.

Figure 1 Fluctuations in CAR, NPF, AQ and ROA for the 2014-2020 period.

From Graph 1, it shows that the Capital Adequacy Ratio/CAR ratio shows an increase, for Non-Performing Financing/NPF and Asset Quality/AQ it shows a stable and simultaneous movement at less than 5 percent. The decline occurred from 2014 to 2020. Meanwhile, Return On Assets/ROA showed an increase in 2020. ROA growth shows growth in the profitability of Islamic banks. Profitability growth was hampered by a decline in non-performing financing. Fluctuations show the instability of CAR, NPF, AQ variants towards ROA. In 2020, when CAR increased to 21.64 percent, ROA actually decreased and was at 1.40 percent. Several studies state that CAR has a positive effect on ROA. In 2017 when NPF rose to 4.76 percent, this was followed by an increase in ROA and became 0.63 percent. A number of studies state that NPF has a negative effect on ROA. In 2020, AQ and ROA decreased to 2.65 percent and 1.40 percent respectively.

In research by Astutiningsih and Baskara (2019), it is stated that capital adequacy has a positive effect on profitability. These results are different from research conducted by Widyastuti and Aini (2021). which states that capital adequacy has a negative effect on profitability. Handayani's research (2015) states that problematic financing has a negative effect on profitability. The research results of Riyadi and Yulianto (2014) state that problematic financing has a positive effect on profitability. Research related to asset quality conducted by Siahaan and Asandimitra (2016) stated that asset quality had a positive effect on ROA, while according to Widhiati (2021) stated that AQ had a

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negative effect on profitability. From a number of studies, different results are still obtained. Differences can occur due to triggering conditions, especially economic conditions and policies related to banking.

RESEARCH METHODS

This research aims to obtain empirical evidence regarding the influence of capital adequacy, financing risk, asset quality on bank profitability. The type of data used in this research is secondary data. This research uses panel data analysis. The internal data source was obtained from the Financial Services Authority in the form of quarterly data, with a research period of 2018 to 2020. Secondary data was obtained from the Financial Services Authority (www.ojk.go.id), period 2018 to 2020.

2.1 Research Variables

Sampling was carried out using purposive sampling, namely a technique for determining samples with certain considerations. Independent variables: Capital Adequacy, Financing Problems, Asset Quality. Meanwhile, the dependent variable is Profitability.

The following is the formula for each variable.

ROA = Net Profit/Total Assets
CAR = Capital/RWA
NPF = Problematic Financing/Amount of Financing
AQ = Problematic Productive Assets/Productive Assets

2.1 Data Analysis Methods

Data analysis was carried out using the panel data analysis method, which aims to determine the influence between the independent variables and the dependent variable. Other tests carried out include: classical assumption testing and hypothesis testing. Estimation model in this research:

$$ROA_{it} = \alpha + \beta_1 CAR_{it} + \beta_2 NPF_{it} + \beta_3 AQ_{it} + \varepsilon_{it}$$

Where:

Y = ROA/Return on Assets)
α = Constant
i = Cross section
t = Time series
β1,2,3 = Regression Coefficient
εt = Error Term

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RESULTS AND DISCUSSION

3.1 **Descriptive Analysis**

Table 1. Descriptive Statistics Test Results

	ROA	CAR	NPF	AQ
Mean	0.807222	19.32306	2.586481	2.921667
Median	0.650000	19.24500	2.585000	2.530000
Maximum	2.510000	31.43000	4.980000	8.180000
Minimum	0.020000	10.16000	0.040000	0.590000
Std. Dev.	0.751837	4.290543	1.471597	1.461016
Skewness	0.662733	0.455835	-0.092890	0.924341
Kurtosis	2.209468	3.226236	1.952651	4.037285
Jarque-Bera	10.71810	3.970469	5.091549	20.22113
Probability	0.004705	0.137348	0.078412	0.000041
Sum	87.18000	2086.890	279.3400	315.5400
Sum Sq. Dev.	60.48277	1969.738	231.7189	228.3987
Observations	108	108	108	108

Source: Data processed in 2023

Based on table 1, the number of observations is 108. The mean value for capital adequacy/CAR is 19.32 percent, the maximum value is 31.43 percent and the minimum value is 10.16 percent. The standard deviation value is 4.29 percent. Financing Risk/NPF has a Mean value of 2.58 percent, a Maximum value of 4.98 percent and a Minimum value of 0.04 percent. Meanwhile, the standard deviation value is 1.47 percent. The mean asset quality value is 2.92 percent, the maximum value is 8.18 percent and the minimum value is 0.59 percent, while the standard deviation value is 1.46 percent. The Mean Profitability/ROA value is 0.80 percent. Maximum value is 2.51 percent and Minimum value is 0.02 percent. Meanwhile, the standard deviation value is 0.75 percent.

3.2 Testing Regression Model Selection

To determine the most appropriate model, use the Chow Test and Hausman Test (Sriyana, 2014), so that the appropriate model can be identified between the common effect model, fixed effect model and random effect model used (Basuki and Prawoto, 2017).

Table 2. Chow and Hausma Test Results

Chow Test	*Hausman*
Cross-section Chi-square = 0,0000	*Cross-section random* = 0,0001
Selected Fixed Effect Model	*Selected Fixed Effect Model*

Source: Data processed in 2023.

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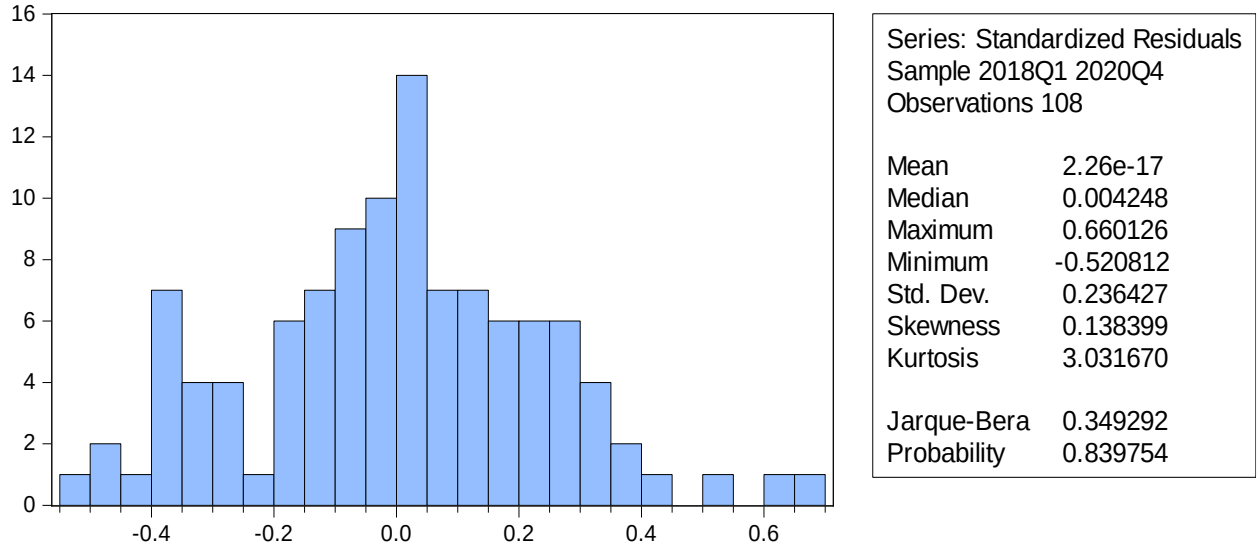
From the results of the Chow Test and Hausman Test as shown in table 2, the cross-section value is smaller than the α = 0.05 level. Thus, the best model to use is the fixed effect model.

3.2 Classic Assumption Test

This Classical Assumption Test is intended to determine whether there are deviations from classical assumptions or not. This test includes: normality test, multicollinearity test, and heteroscedasticity test (Ghozali, 2013).

Normality Test



Source: Data processed in 2023

Figure 1. Normality Test Results

Based on Figure 1, it is known that the Jarque Bera value is 0.349292 and the probability value is 0.839754. The probability value of 0.839754 is greater than the alpha level of 0.05. Thus, the data has been distributed normally and the requirements for normality have been met (Ghozali, 2013).

Multicollinearity Test

Table 3. Multicollinearity Test Results

	CAR	NPF	AQ
CAR	1.000000	-0.005907	-0.013557
NPF	-0.005907	1.000000	0.790751
AQ	-0.013557	0.790751	1.000000

Source: Data processed in 2023

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From the results of the multicollinearity test as shown in table 3, all independent coefficient values are smaller than 0.9. Thus, this regression model is free from multicollinearity problems. This regression model does not have a correlation with the independent variables

Heteroscedasticity Test

Table 4. Heteroscedasticity Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.052441	0.090739	0.577928	0.5647
CAR	0.007140	0.004385	1.628194	0.1068
NPF	0.030737	0.019589	1.569134	0.1199
AQ	-0.029751	0.020057	-1.483287	0.1413

Source: Data processed in 2023

From table 4 it can be seen that the probability value of the third variable is greater than 0.05. The CAR probability value is 0.1068 > 0.05, NPF is 0.1199 > 0.05, and AQ is 0.1413 > 0.05. These results show that all variable probability values are greater than 0.05, so it can be concluded that this research does not contain heteroscedasticity (Ghozali, 2013).

3.3 Panel Data Regression Analysis

Panel data regression testing aims to determine the influence of the independent variables capital adequacy, problematic financing and asset quality on profitability in Islamic banks (Sriyana, 2014). The following are the panel data regression results:

Table 5. Regression Test Results Data Panel

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.977813	0.193182	5.061619	0.0000
CAR	0.005902	0.009336	0.632176	0.5288
NPF	-0.095867	0.041704	-2.298738	0.0237
AQ	-0.012553	0.042701	-0.293973	0.7694

Source: Data processed in 2023

The panel data regression equation is:

$$\mathbf{ROA = 0{,}977813 + 0{,}005902CAR - 0{,}095867NPF - 0{,}012553AQ + \varepsilon_{it}}$$

The results of the regression equation explain: a constant value of 0.977813 indicates that if the independent variables CAR, NPF and AQ have a value of 0 then the average ROA is 0.977813. The CAR coefficient value is 0.005902, CAR shows a positive influence on ROA. If the CAR increases by 1 percent, while the other variables are constant, it will increase the ROA value by 0.005902 percent. The NPF coefficient value is -0.095867, NPF shows that there is a negative influence between the NPF variable on ROA. If the NPF increases by 1 percent, while the other variables are constant, the ROA value will decrease by 0.095867 percent. The AQ coefficient value is –0.012553, KA shows that there is a negative influence between the AQ variable on ROA. If AQ increases by 1 percent while the other variables are constant, then ROA will decrease by 0.012553 percent.

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3.4 Hypothesis Testing

Simultaneous Test (F Test)

Based on the F-test, the F-count value is 79.52652, where the F-count > F-table value is 79.52652 > 2.69 with a prob (F-statistic) value of 0.0000 which is smaller than the α = 0.05 level. So H_0 is rejected and Ha is accepted. This means that the variables of capital adequacy, problematic financing and asset quality simultaneously have a significant effect on profitability.

Partial Test (t-Test)

Table 6. Partial Test Results (T Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.977813	0.193182	5.061619	0.0000
CAR	0.005902	0.009336	0.632176	0.5288
NPF	-0.095867	0.041704	-2.298738	0.0237
AQ	-0.012553	0.042701	-0.293973	0.7694

Source: Data processed in 2023

Based on the results of the t test in table 6, it can be explained: the capital adequacy/CAR variable partially has no effect on profitability. This can be seen from the t-count of 0.632176. This means t-count (0.632176) < t-table value (1.98282) and the CAR variable has a probability value greater than the α level, namely 0.5288 > 0.05. So H_{o1} is accepted and H_{a1} is rejected. So it can be concluded that partially capital adequacy has no significant effect on profitability. The non-performing financing variable/NPF partially has a negative effect on profitability. This can be seen from the NPF correlation coefficient of -0.095867. The absolute t-count value is 2.298738, which means t-count (2.298738) > t-table value (1.98282) and the NPF variable has a probability value smaller than the α level, namely 0.0237 < 0.05. So H_{o2} is rejected and H_{a2} is accepted. So it can be concluded that problematic financing has a negative and significant effect on profitability. Furthermore, the Asset Quality/AQ variable partially has no effect on profitability. This can be seen from the correlation coefficient of -0.012553. The absolute t-count value is 0.293973, which means t-count (0.293973) < t-table value (1.98282) and the AQ variable has a probability value greater than the α level, namely 0.7694 > 0.05. So H_{o3} is accepted and Ha3 is rejected. So it can be concluded that asset quality has no significant effect on profitability.

From the test results, it is known that the Adjusted R-squared value is 0.889781 or 88.97 percent. This shows that the independent variables, namely capital adequacy, financial problems and asset quality can explain the dependent variable Return On Assets/ROA of 88.97 percent. while the remaining 11.03 percent is explained by other factors not included in this study.

DISCUSSION

Effect of Capital Adequacy, Financing Problems and Asset Quality on Profitability

Based on the F-test (Simultaneous Test), the results show that the F-count value is 79.52652 where the F-count > F-table value is 79.52652 > 2.69 with a prob (F-statistic) value of 0.0000 which is smaller than the α = 0.05 level, so H_0 rejected and Ha accepted, which means that the variables CAR, NPF and AQ together (simultaneously) have a significant effect on profitability. The results of

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previous research show that CAR, NPF and AQ have a significant effect on profitability/ROA. This shows that Sharia Banks need to improve the influencing performance variables level of profitability, such as capital adequacy, financing obtained and asset quality, so that the bank remains healthy and maintains public trust.

Effect of Capital Adequacy on Profitability

From the test results it can be concluded that the capital adequacy variable has no significant effect on profitability. This can be seen from the tcount of 0.632176. t-count 0.632176 < t-table value 1.98282 and probability value over 0.5288 > 0.05. So H_{o1} is accepted and H_{a1} is rejected. Partially, capital adequacy has a significant effect on profitability. A high CAR ratio results in some funds being unproductive. CAR has no significant effect on ROA. A high CAR ratio tends to hamper a bank's ability to be productive.

Bank capital ratios that are not managed appropriately can be caused by high capital reserve policies to reduce losses due to high levels of problematic financing. This policy reduces the bank's opportunities for business expansion. However, the CAR ratio has no effect on increasing profitability. The results of this research are in line with previous research which states that capital adequacy has no significant effect on profitability.

The Effect of Disruptive Financing on Profitability

The test results show that the problematic financing/NPF variable has a negative effect on bank profitability. This is known from the regression coefficient value of the problem financing variable of -0.095867. The absolute tcount value is 2.298738, which means tcount or 2.298738 > t-table value 1.98282 and the NPF variable has a probability value smaller than the α level, namely 0.0237 < 0.05. Thus, H_{02} is rejected and H_{a2} is accepted. Problematic financing has a negative and significant effect on profitability

The lower the NPF, the more profitability increases. An increase in NPF indicates that the quality of financing is getting worse and banking problems are increasing, which has an impact on decreasing levels of profitability. This is because banks have to bear the risk of losses due to bad financing. Banks must reduce the non-performing financing ratio to a low level, so that profitability increases. By maintaining the principle of caution regarding the financing provided. It is necessary to control the financing provided, so as to minimize the risk of financing failure and attempt to produce higher profitability. The results of this research are in line with previous previous research, which stated that NPF has a significant negative effect on profitability.

Effect of Asset Quality on Profitability

From the test results that the asset quality variable does not have a significant effect on the profitability of Sharia Commercial Banks. This can be seen from the regression coefficient value for the asset quality variable of -0.012553. The absolute t-count value is 0.293973, which means t-count or 0.293973 < t-table value 1.98282. The AQ variable has a probability value greater than the α level, namely 0.7694 > 0.05. So H_{03} is accepted and H_{a3} is rejected. Asset quality does not have a significant effect on profitability.

The rise and fall of the bank's asset quality ratio has not been accompanied by an increase in profitability obtained by the bank. An insignificant influence between asset quality/AQ on profitability can occur. This can be caused by a high asset quality ratio indicating unproductive financing. So that banks reduce dependence on income originating from financing. The Bank makes allowances for losses on productive assets, as a result of possible asset losses or set aside funds to acquire new assets, which will be carried out in the future. The results of this research are in line with

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previous research which states that asset quality has no significant effect on profitability.

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