

## **THE INFLUENCE OF CAPITAL ADEQUACY, NON-PERFORMING FINANCING, LIQUIDITY, AND OPERATIONAL EFFICIENCY ON PROFITABILITY OF ISLAMIC BANKS**

**Muhammad Roihan**

Universitas Jambi

E-mail: [muhammadroihan@unja.ac.id](mailto:muhammadroihan@unja.ac.id)

**Abstract:** The measure of profitability in the banking industry that is used in general is Return on Equity (ROE) and Return on Assets (ROA). In this case, the profit proxy used is Return on Assets (ROA) because ROA focuses on the company's ability to earn profits in its operations, while ROE only measures the return from the investment sector of the company owner in the business. In this study, we will see how the effect of capital adequacy will be proxied by the Capital Adequacy Ratio (CAR), Problem Financing which will be proxied by the Non Performing Financing (NPF), Liquidity which will be proxied by the Financing to Deposit Ratio (FDR) and Operational Efficiency which will be proxied by the ratio of Operational Expenses to Operational Income (BOPO). The results of the study show that there is a influence of variable independent (CAR, NPF, FDR, BOPO) simultaneously on variables dependent it (ROA). Partially only the CAR variable which shows a significant positive positive effect and BOPO which shows a significant negative effect on profitability (ROA). While the other two variables, namely NPF and FDR, have no significant effect on profitability (ROA).

**Keywords:** *Islamic Bank, Finance, Return.*

Submitted: 2023-08-15; Revised: 2023-08-25; Accepted: 2023-09-08

---

### **1. Introduction**

The banking industry is a financial institution that is familiar with the daily lives of people in both developed and developing countries, one of which is Indonesia. Having a financial institution in a country makes it easier for the public to carry out financial transactions in their daily activities, such as making deposits, transfers, borrowing money and other financial services. Banks are also one of the institutions that have a very important role in driving the economic growth of a country, even the growth of banks in a country is used as a measure of the country's growth (Ismail, 2011).

The role of banking greatly influences the economic activities of a country. Banks can be said to be the blood of a country's economy. Therefore the progress of a bank in a country can also be used as a measure of the progress of the country concerned. The more developed a country, the greater the role of banking in controlling the country. This means that the existence of the banking world is increasingly needed by the government and society (Kasmir, 12).

The main principle of Islamic banking is not to recognize interest, interest is considered something that is forbidden, because it is a bad element that damages society economically, socially and morally. Because interest is considered unlawful, interest cannot be included as an element for calculating Islamic bank income. Revenue is only calculated from the results of its operations from the results of the distribution of profits from sales and purchase contracts, rental proceeds and administrative costs for services provided. The amount of income earned will affect the level of bank financial performance.

Since the development of the Islamic banking system in Indonesia, in the two decades of developing national Islamic finance, there have been many achievements, both in terms of institutions and supporting infrastructure, regulatory instruments and supervisory systems, as well as awareness and public literacy of sharia financial services. Our sharia financial system is one of the best and most comprehensive systems that is recognized internationally. As of June 2015, the sharia banking industry consisted of 12 sharia commercial banks, 22 sharia business units owned by conventional commercial banks and 162 BPRS with total assets of Rp. 273.494 Trillion with a market share of 4.61%. Specifically for the DKI Jakarta Province area, total gross assets, financing, and Third Party Funds (BUS and UUS) each amount to Rp. 201.397 Trillion, Rp. 85.410 Trillion and Rp. 110.509 Trillion.

In recent years the development of the Indonesian Islamic banking industry has positive trend. This can be seen from the increase in sharia growth, especially in terms of total assets. It can be seen that the Islamic banking industry in Indonesia has great potential to develop in Indonesia. The increase in Islamic banking offices and assets in Indonesia in recent years shows that there has been an expansion carried out by Islamic banking in an effort to expand the market that Indonesia wants to absorb, which is a country with a majority Muslim population.

In assessing the financial performance of an Islamic bank, profit is seen as an appropriate predictor for predicting future financial performance and future economic events. The measure of profitability in the banking industry that is used in general is Return on Equity (ROE) and Return on Assets (ROA). In this case, the profit proxy used is Return on Assets (ROA) because ROA focuses on the company's ability to earn profits in its operations, while ROE only measures the return from the investment sector of the company owner in the business.

The financial performance of a bank also reflects the level of soundness of the bank, which is further stated in Article 3 of PBI No. 9/1/PBI/2007 concerning the Rating System for Commercial Banks Based on Sharia Principles includes an assessment of the following factors: Capital, Asset quality, Management, Rentability (earnings), Liquidity and Sensitivity to market risk.

This study will see how Effect of Capital Adequacy, Problem Financing, Liquidity and Operational Efficiency. From all this variables which will influences the Profitability of Islamic Commercial Banks in Indonesia the most.

**Table 1**  
**Financial Ratios of Islamic Commercial Banks and Sharia Business Units**

Information	2013	2014	2015	2016	2017	2018
ROA	2.00	0.41	0.49	0.63	0.63	1.41
CAR	14.42	15.74	15.02	16.63	17.91	21.25
NPF	2.62	4.95	4.84	4.42	4.76	3.82
FDR	100.32	86.66	88.03	85.99	79.61	78.95
BOPO	78.21	96.97	97.01	96.22	94.91	88.08

Source: Statistik Perbankan Syariah (data processed 2020)

In this study, the variables used are ROA as a proxy for profitability, which is the dependent variable and CAR as a proxy for capital adequacy, NPF as a proxy for non-performing financing, FDR as a proxy for liquidity, and BOPO as a proxy for operational efficiency are the independent variables. Based on the theoretical basis and the results of previous research.

ROA is a ratio that measures a bank's ability to generate profits, thus the value of ROA which increases each period indicates an improvement in bank profits. minimum bank capital is calculated based on risk-weighted assets (RWA). This means that by increasing the CAR, the bank's capital position will also be better, the higher the CAR, it can support or anticipate the loss of risky productive assets, for example channeled financing which will have a positive effect on the income of Islamic banks.

Problem financing can be seen from the NPF ratio, namely the size of this NPF shows the performance of a bank in managing the funds distributed. If the portion of non-performing financing increases, this will ultimately reduce the amount of income earned by the bank. So that in the end affects the level of profitability of Islamic banks. Liquidity can be seen from the FDR ratio, namely if the bank can channel all the funds raised, it will indeed be profitable, but this is related to the risk if at any time the owner of the funds withdraws his funds or the user of the funds does not return the funds he borrowed. This shows a positive relationship between FDR and ROA but still with the liquidity risk faced. Operational efficiency can be seen from the BOPO ratio, namely the ability of bank management to control operational costs against operating income, thus the smaller the ratio of operational costs (expenses), the better, because the costs incurred are smaller than the income received.

## **2. Research Method**

In this study, the approach used is to use quantitative research. Data collection techniques used secondary data obtained from reports on the Financial Services Authority's website, statistical data on Islamic banking, and reports on Islamic commercial banks in Indonesia for the 2013-2018 period as data to be processed for use in research.

### **Research Variables**

The dependent variable in this study uses a proxied profitability Return On Asset. The independent variables of this study are Capital Adequacy, Troubled Financing, Liquidity, Operational Efficiency.

### **Data Types and Sources**

The type of data that will be used in this study is panel data, March 2013 to December 2018 quarter from 6 Islamic Commercial Banks, namely Bank Syariah Mandiri, Bank Muamalat, BNI Syariah, BCA Syariah, BRI Syariah and Bukopin Syariah. Then the source of data in this study is secondary data, namely research data obtained indirectly or through intermediary media. This data is secondary data obtained from financial reports published by Islamic Commercial Banks, Bank Indonesia, the Financial Services Authority and other sources related to research.

### **Data analysis technique**

The statistical method used by the author to test the research hypothesis is using multiple linear regression analysis. Then the data will be processed using E-Views8.

### 3. Results and Discussion

#### 3.1. Results

##### Simultaneous Significance Test (F Test)

**Table 2**  
**F test results with the Fixed Effect Model**

Dependent Variable: ROA  
 Method: Panel EGLS (Cross-section SUR)  
 Date: 06/12/20 Time: 21:41  
 Sample: 2013Q1 2018Q4  
 Periods included: 24  
 Cross-sections included: 6  
 Total panel (balanced) observations: 144  
 Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.827449	0.222839	35.12601	0.0000
CAR	0.000633	0.002174	0.291271	0.7713
NPF	-0.019281	0.009505	-2.028442	0.0445
FDR	0.004747	0.001184	4.010197	0.0001
BOPO	-0.080758	0.002229	-36.23492	0.0000

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics			
R-squared	0.961664	Mean dependent var	3.778628
Adjusted R-squared	0.959089	S.D. dependent var	6.279172
S.E. of regression	0.991740	Sum squared resid	131.7956
F-statistic	373.4853	Durbin-Watson stat	1.222604
Prob(F-statistic)	0.000000		

Unweighted Statistics			
R-squared	0.895129	Mean dependent var	0.841458
Sum squared resid	3.600672	Durbin-Watson stat	0.590750

Source: Processed data (E-Views8)

Based on the results of the F statistics obtained from the model, namely F count of 133.1405. Meanwhile, with  $n = 144$  and  $k = 5$ , the value in the F-table is 2.44. Thus  $F\text{-count } 133.1405 > F\text{-table } 2.44$ . with a significance of  $0.000 < 0.05$ , then  $H_0$  is rejected and  $H_1$  is accepted, which means that the regression coefficient value is not equal to zero, it can be concluded that the independent variables can simultaneously explain the dependent variable.

##### Partial significance test (t test)

**Table 3**  
**T test results with the Fixed Effect Model**

Dependent Variable: ROA  
 Method: Panel EGLS (Cross-section SUR)  
 Date: 06/12/20 Time: 21:41  
 Sample: 2013Q1 2018Q4  
 Periods included: 24  
 Cross-sections included: 6  
 Total panel (balanced) observations: 144  
 Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.827449	0.222839	35.12601	0.0000
CAR	0.000633	0.002174	0.291271	0.7713
NPF	-0.019281	0.009505	-2.028442	0.0445
FDR	0.004747	0.001184	4.010197	0.0001
BOPO	-0.080758	0.002229	-36.23492	0.0000

Source: Processed data (E-Views8)

By comparing the t-count value with the t-table and looking at the probability value of each independent variable, it can be concluded as follows:

#### **The Most Dominant Independent Variable on ROA**

The tcount value of the CAR variable is 2.088708, NPF is -0.873409, FDR is 1.712419, and BOPO is -20.65843. Based on this value, it can be concluded that the BOPO variable has the highest t-count value among the other variables and with a probability value of 0.0000, which means that BOPO has the most dominant influence on profitability performance proxied to ROA.

#### **T test on the CAR variable**

The results of panel data regression analysis test results show the results of the t-count test for the CAR variable of 2.088708, while the t-table value with  $\alpha = 5\%$  and  $df (n-k) 144-5 = 139$  is 1.97718 which means that the t-count value is greater from the t-table value (2.088708. > 1.97718). while the probability value is 0.0386 which means it is smaller than the significance value of 0.05 (0.0386 < 0.05). Based on these results,  $H_0$  is rejected so it is concluded that the CAR variable independently has a significant effect on the profitability performance of Islamic banks which is proxied to ROA.

#### **T test on the NPF variable**

The results of the panel data regression analysis test show that the t-count test results for the NPF variable are -0.873409, while the t-table value with  $\alpha = 5\%$  and  $df (n-k) 144-5 = 139$  is 1.97718 which means that the t-count value is more smaller than the t-table value (-0.873409 < 1.97718). While the probability value is 0.3840 which means it is greater than the significance value of 0.05 (0.3840 > 0.05). Based on these results,  $H_0$  is accepted so that it can be concluded that the NPF variable has no significant effect on profitability performance proxied to ROA.

#### **T test on the FDR variable**

The results of the panel data regression analysis test show the results of the t-count test for the FDR variable of 1.712419, while the t-table value with  $\alpha = 5\%$  and  $df (n-k) 144-5 = 139$  is 1.97718 which means that the t-count value is smaller from the t-table value (1.712419 < 1.97718), while the probability value is 0.0891 which means it is greater than the significance value used 0.05 (0.0891 > 0.05). based on these results,  $H_0$  is accepted so that it can be concluded that the FDR variable has no significant effect on profitability as a proxy for ROA.

#### **T test on the BOPO variable**

The results of the panel data regression analysis test show the results of the t-count test for the BOPO variable of -20.65843, while the t-table value with  $\alpha = 5\%$  and  $df (n-k) 144-5 = 139$  is 1.97718 which means that the t-count value is more greater than the t-table value (20.65843 > 1.97718), while the BOPO probability value is 0.0000 which means it is smaller than the significance value of 0.05 (0.0000 < 0.05). Based on these results,  $H_0$  is rejected so it can be concluded that the BOPO variable has a significant effect on profitability which is proxied to the ROA variable.

### Determination Coefficient Test

**Table 4**  
**Determination Test with the Fixed Effect Model**

R-squared	0.961664	Mean dependent var	3.778628
Adjusted R-squared	0.959089	S.D. dependent var	6.279172
S.E. of regression	0.991740	Sum squared resid	131.7956
F-statistic	373.4853	Durbin-Watson stat	1.222604
Prob(F-statistic)	0.000000		

Source: Processed data (E-Views8)

Based on the results of the regression test above, an Adjusted R-Squared value of 0.961664 can be obtained. This shows that the ability of the independent variables (CAR, NPF, FDR, BOPO) to explain the dependent variable (ROA) is 96.17%. The remaining 3.83% is explained by other factors not included in this research model.

### 3.2. Discussion

The From the results of the t test it is known that there are 3 variables that have a significant influence on profitability and 1 variable that does not have a significant effect on profitability. Problem financing variables, liquidity and operational efficiency show a significant effect with each t-count value greater than the t-table value and a probability value smaller than 0.05.

In terms of problematic financing, with a significant negative effect shown in the results of the study showing how banks can reduce the risk of losses coming from financing that may not be returned by customers, this is also supported by the results of the average NPF value during the study (data on attachment) which shows that the NPF value of the banks in the study shows the figure of 2.47% which is a value slightly above the best value for NPF according to BI, which is 2%. However, the value of 2.47% can still be categorized as quite good because it is ranked 2nd best according to BI, which is between 2% -5%, which means that the ability of banks to reduce the risk of loss is quite good, but there are still some small deficiencies that can be caused by several banks. who still dare to take a slightly high risk in the hope of getting a higher profit from the financing it provides. This can also be seen from several banks that have a relatively high average NPF value of above 2% such as BSM 3.14%, Muamalat 2.9%, BRI Syariah 3.67% and Bukopin Syariah 3.35%. This difference in financing risk policies is caused by some banks wanting higher returns by taking greater risks, but the average figures of these banks can still be said to be safe. This result causes the influence of the size of problem financing to have a direct effect on the profitability of Islamic Commercial Banks in Indonesia. This is supported by the results of research conducted by Melinda which supports the theory that the lower the NPF, the greater the ROA. Which is caused by the increasing possibility of financing that cannot be returned by customers, the more it affects the losses incurred so that profitability will decrease.

And from the liquidity side, the research results show that there is a significant positive effect between liquidity on profitability, this can be closely related to the ability of banks to use third party funds properly so as to minimize the amount of idle funds at the bank. Seen in the average FDR value of Islamic Commercial Banks (data in the attachment) which shows a

fairly good FDR value of 88.93% which is slightly below the optimal value of 95% -98%, which means that of all third party funds owned by the bank 88, 93% can be used by banks for financing, but this is not optimal with 7%-10% of funds still idle. There is a relationship with the risk of non-performing financing faced by several banks in this study which, if one pays attention to the average value of the NPF ratio during the research period, was 2.47%, which was greater than the optimal value according to BI, which was 2%. With this risk, it slightly reduces the bank's confidence to use all third party funds as a source of financing, because if at any time the customer wants to withdraw their funds with the risk of problematic financing, there is a possibility that the bank will find it difficult to return these funds, so this makes the bank not brave. optimize the use of third party funds owned. Meanwhile, according to theory, the utilization of third party funds can be used as well as possible up to a maximum limit of 110%. This result is supported by the results of Mahardian's research which is in line with the theory of the Bank's function, namely channeling funds or financing. The greater the FDR ratio indicates the better the liquidity of a bank, conversely the smaller the FDR ratio, the more idle funds. This means that the more funds channeled for financing, the greater the profit generated.

Operational efficiency (BOPO) shows that there is a significant negative effect on profitability (ROA) thus the ability of Indonesian Sharia Commercial Banks to control operational costs greatly affects their profit capability, the ability to optimize costs incurred will indeed always be related to how much profit a company will get. businesses including banks, by reducing the burden of operational costs that must be incurred, of course the bank will be able to use these funds for other needs which will help banks boost bank revenue. Meanwhile, the average BOPO value of Indonesian Islamic Commercial Banks during the study period (data in the attachment) is 91.28%, which is only slightly above the BOPO standard of 83% but is still on the verge of optimality because it has not yet touching 100%, which means that the operational costs incurred are still smaller than the income so that the bank from an operational perspective is still making a profit. Thus it can be said that even though BOPO has a significant effect on profitability with the most dominant influence from other variables, the value is still not good. This is indicated by the presence of banks whose banks have achieved BOPO of 99.9%, which means that there is almost no profit obtained by banks with the magnitude of operational costs at that time, this should be a concern for banks how important operational efficiency is in influencing profitability. These results are consistent with Mahardani's research which states that BOPO has a significant negative effect on ROA.

While there is 1 variable that does not have a significant effect on profitability, namely capital adequacy where the t-count value of this variable is below the research t-table, and the probability value of each variable is also above 0.05 so it can be concluded that there is no significant influence significant of the variable.

The capital adequacy variable from the results of the study shows that there is no significant effect, meaning that the capital owned by banks is not used too much in the business of Islamic Commercial Banks in Indonesia to get profits. This situation can be caused by several things, such as good banking management in optimizing the use of third party funds in Running a bank's operations can be seen from the significant influence of liquidity (FDR) on profitability which is strengthened by research results. This is certainly good for banks, so that existing capital can be used as a reserve or in anticipation of the need for funds at a certain time. However, from the results of the study it can also be concluded that the average CAR value of Islamic Commercial Banks for the study period (data in the

attachment) is 18.015%, indicating that the bank has much greater capital than weighted assets where the optimal value is  $> 12\%$ , meaning that CAR is very good in value, but with large capital it is not always used for banking operational activities, because capital can also be used as a reserve for banks to guard if one day they need emergency funds by looking at the risks of existing financing. These findings are supported by research results from M Aditya and Sarifudin's research which shows that the Capital Adequacy Ratio (CAR) has no effect on Return On Assets (ROA).

#### **4. Conclusion**

From the results of the study it can be concluded that the independent variables can simultaneously explain the dependent variable. But not partially because based on the results of the analysis carried out there are variables that have a significant effect and some that do not have a significant effect.

Capital adequacy has no significant positive effect on profitability. Shows that the role of capital, in this case capital adequacy in carrying out the main activities of the bank, does not have a direct impact on the final result expected by the bank, namely its profit capability or profitability. Non-performing financing has a significant negative effect on profitability, the results of the study show how banks can reduce the risk of losses coming from financing that customers may not be able to repay, this is also supported by the results of the average NPF value during the study showing the figure of 2.47% which means where this value is a value that is slightly above the best value for NPF according to BI, namely  $< 2\%$ . Liquidity has a significant positive effect on profitability, this is related to the ability of banks to use third party funds optimally so as to minimize the amount of idle funds at the bank. Operational efficiency has a significant negative effect on profitability, by reducing the burden of operational costs that must be incurred, banks will certainly be able to use these funds for other needs which will help banks boost bank revenues. From the research results it is also known that operational efficiency is the variable that has the greatest influence on profitability.

#### **References**

- Ali, Zainuddin. 2010. *Hukum Perbankan Syariah*. Jakarta: Sinar Grafika.
- Arif, M. Nur Rianto Al. 2012. *Lembaga Keuangan Syariah: Suatu Kajian Teoretis Praktis*. Bandung: Pustaka Setia.
- Basuki, Agus Tri dan Nano Prawoto. 2016. *Analisis Regresi dalam Penelitian Ekonomi dan Bisnis (Dilengkapi Aplikasi SPSS dan Eviews)*. Jakarta: Rajawali Pers.
- Dahlan, Ahmad. 2012. *Bank Syariah: Teoritik, Praktik, Kritik*. Yogyakarta: Teras.
- Damayanti,Decy (2014), “Faktor-faktor yang mempengaruhi profitabilitas pada Bank Umum syariah periode 2008-2012”
- Fahmi, Irham. 2015. *Analisis Laporan Keuangan*. Bandung: Alfabeta.
- Ghozali, Imam. 2011. *Aplikasi Analisis Multivariate dengan Program IBM SPSS 19*. Semarang: Badan Penerbit Universitas Diponegoro.
- Hariyani, Iswi. 2010. *Restrukturisasi dan Penghapusan Kredit Macet*. Jakarta: PT Gramedia.
- Haryono, Slamet. 2009. *Analisis Laporan Keuangan Perbankan Syariah*. Yogyakarta: Pustaka Sayid Sabiq.
- Hery. 2017. *Analisis Laporan Keuangan: Integrated And Comprehensive Edition*. Jakarta: PT Grasindo.

- Ikatan Bankir Indonesia. 2014. *Memahami Bisnis Bank Syariah*. Jakarta: PT Gramedia Pustaka Utama.
- Indriantoro, Nur dan Bambang Supono. 2014. *Metodologi Penelitian Bisnis untuk akuntansi dan Manajemen*. Yogyakarta : BPFE-Yogyakarta.
- Ismail. 2011. *Manajemen Perbankan: DariTeori Menuju Aplikasi*. Edisi 1 Cet. 2. Jakarta: Kencana.
- Karim, Adiwarman A. 2013. *Bank Islam: Analisis Fiqh dan Keuangan*. Jakarta: PT RajaGrafindo Persada.
- Kasmir. 2012. *Dasar-Dasar Perbankan Edisi Revisi*. Jakarta: PT RajaGrafindo Persada.
- Mahardian,Pandu (2009), “*Analisis Pengaruh Rasio CAR, BOPO, NPL, NIM dan LDR terhadap kinerja keuangan perBankan (studi kasus perusahaan perBankan yang tercatat di BEJ periode Juni 2002-juni 2007)*”
- Muhamad. 2015. *Manajemen Dana Bank Syariah*. Jakarta: PT RajaGrafindo Persada.
- Surat Edaran Bank Indonesia No. 6/23/DPNP tanggal 31 Mei 2004, tentang Perhitungan Rasio Keuangan Bank.
- Surat Edaran Bank Indonesia No. 9/24/DPbS Perihal Sistem Penilaian Tingkat Kesehatan Bank Umum Berdasarkan Prinsip Syariah.