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PANEL MODELLING TO ANALYZE FINANCIAL PERFORMANCE ON ISLAMIC COMMERCIAL BANKS

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Abstract

This research was conducted to determine the influence of CAR, NOM, OCR, FDR on Islamic Commercial Banks for the 2016-2020 period. The population of this study was all Sharia Commercial Banks in Indonesia registered with the Financial Services Authority (OJK) in 2016-2020 and obtained 12 samples that met the criteria using purposive sampling techniques. The data analysis technique uses multiple linear regression techniques of panel data with the selection of a Fixed Effect Model (FEM). The results showed that: (1) CAR has a positive effect on ROA in Islamic Commercial Banks. (2) NOM has a positive effect on ROA in Islamic Commercial Banks. (3) OCR has a positive effect on ROA. (4) FDR has a positive effect on the ROA of Islamic Commercial Banks.
Keywords: *NOM, CAR, OCR, FDR, ROA*

Abstrak

Penelitian ini dilakukan untuk mengetahui pengaruh CAR, NOM, BOPO, FDR terhadap Bank Umum Syariah periode 2016-2020. Populasi penelitian ini adalah seluruh Bank Umum Syariah di Indonesia yang terdaftar di Otoritas Jasa Keuangan (OJK) pada tahun 2016-2020 dan memperoleh 12 sampel yang memenuhi kriteria menggunakan teknik purposive sampling. Teknik analisis data menggunakan teknik regresi linier berganda data panel dengan pemilihan Fixed Effect Model (FEM). Hasil penelitian menunjukkan bahwa: (1) CAR berpengaruh positif terhadap ROA pada Bank Umum Syariah. (2) NOM berpengaruh positif terhadap ROA pada Bank Umum Syariah. (3) BOPO berpengaruh positif terhadap ROA. (4) FDR berpengaruh terhadap ROA Bank Umum Syariah.
Kata Kunci: NOM, CAR, BOPO, FDR, ROA

INTRODUCTION

Banks play a role in meeting the financial needs of the community. Banks are not only one of the financial institutions that have an important role in the economy of a country. In addition, the bank also acts as an *Intermediary* financial institution. Based on interest payments or distribution of Islamic Commercial Banks iness proceeds, banks are divided into two types, namely conventional banks and Islamic banks. In recent years, this Islamic bank has had a fairly rapid development in Indonesia. (Das et al., 2020).

Banking as one of the sub-systems of the financial services industry, is considered one of the determinants in the journey and is used as a barometer of a country's economic stability. Unlike conventional banks, Islamic banks in carrying out their operations do not refer to changes in interest rates, so the impact is not directly felt, even in terms of growth, Islamic banks actually exceeded the average growth of conventional banks, especially in 2007 to 2011 with an average of 40.2% per year, while national banks were only 16.7% per year (Deputy Governor of BI at the Milad event Association of Islamic Economists).

The banking industry is required to be more active in various ways, including improving the quality of services by regaining public trust which has been declining. The right step that can be done is to improve the bank's performance. Good performance in a bank is expected to be able to regain public trust in the

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bank itself or the banking system as a whole. On the other hand, the bank's performance can also be used as a benchmark for the bank's health. Weak internal bank conditions such as inadequate management, lending to its own group or Islamic Commercial Banks iness group and capital that cannot cover the risks faced by the bank have caused the bank's performance to decline (Rahmani, 2017).

Table 1.
Financial Ratios in Islamic Commercial Banks

Ratio	Years (%)				
	2016	2017	2018	2019	2020
ROA	0,63	0,63	1,28	1,73	1,40
CAR	16,63	17,91	20,39	20,59	21,64
FDR	85,99	79,61	78,53	77,91	76,36
NOM	0,68	0,67	1,42	1,92	1,46
OCR	96,22	94,91	89,18	84,85	85,55

Sources : www.ojk.go.id

Based on Table 1, there is instability in the financial ratios of Islamic commercial banks. If one of the ratios increases, the other ratios will also increase, but some do not increase and actually decrease. Vice versa, if one of the ratios decreases, the other ratio will also decrease but there is also a ratio that actually increases.

According to research that has been carried out (Lemiyana, 2016), (Das et al., 2020) and (Suryanto & Susanti, 2020) that CAR, NOM, NPF, OCR, FDR have an effect on *Return On Asset* (ROA). In some of the studies above, it can be seen that some factors that affect ROA are CAR, NPF, FDR, OCR, NOM.

One of the main actor factors influencing profitability (ROA) is the *Capital Adequacy Ratio* (CAR). *Capital Adequacy Ratio* (CAR) is a capital adequacy ratio, which is used to measure and see whether the capital owned by an Islamic Commercial Bank can generate a risk such as disbursed credit. Research that has been carried out (Edwar Yokeu Bernardin, 2016) proves that the *Capital Adequacy Ratio* (CAR) affects the *Return On Assets* (ROA), by analyzing the higher the value of CAR, the more profitable the Islamic Commercial Bank as a whole. However, research that has been carried out (Kasmir, 2019) proves that CAR does not have a significant effect on ROA due to indications in bank financial statement data that have increased in the CAR ratio, but ROA has decreased. Then it is also caused by the large amount of funds that are not channeled to credit financing so that bank profits cannot be maximized.

Then the second factor that affects *Return on Assets* (ROA) is *Net Operating Margin* (NOM). *Net Operating Margin* (NOM) is known as a bank's rentability ratio. This ratio current is maintained stability, as a result if the NOM is low, the level of rentability is also low so that the profit obtained will be small. Research that has been carried out (Suparyanto and Rosad, 2015) proves that NOM has a positive effect on ROA because the higher the NOM level, the higher the interest rate generated. High interest rates will increase the ability of capital owners to optimize them in the productive sector. However, research conducted (Ridho Fikri Almi, 2020) proves that *Net Operating Margin* (NOM) negatively affects Return *On Asset* (ROA) because Islamic banks that implement a profit-sharing system must be careful so that they still have the possibility of losing money if Islamic Commercial Banks iness cooperation fails. And ultimately affects the level of profit of such banks.

Then the third factor that affects *Return On Asset* (ROA), namely Operating Costs and Operating Income (OCR) is a ratio that measures the level of comparison between operating costs and operating income. The lower the OCR value, it indicates that the bank is able to run its operations efficiently because the operational costs incurred are few. Research conducted (Sudarmawanti & Pramono, 2017) proves that Operating Costs to Operating Income (OCR) have aninfluence on *Return On Asset (*ROA). However, research that has been carried out (Lemiyana, 2016) proves that

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Operating Costs to Operating Income (OCR) have noeffect on *Return On Asset (*ROA). This event shows that the higher the OCR, the profitability obtained will decrease and vice versa. This is because Islamic banks must arrange efficient operational activities by reducing bank operational costs because it greatlyaffects the level of profit of bank. A bank that is productive in carrying out its operations will be able to generate a high ROA. Therefore, banks need to take the right policies in cutting unnecessary operational costs.

Finally, the fourth factor that affects *Return On Assets* (ROA) is the *Financing Deposit Ratio* (FDR). This ratio has a fairly vital role and is a ratio used to measure liquidity in a bank and the fulfillment of obligations that must be complied with. Research that has been carried out (Utami, 2021) proves that FDR hasa positive impact on ROA because the higher FDR is, the profit obtained will increase. By seeing the picture of a bank that is able to disburse loans effectively, the number of bad loans will be small. However, research that has been conducted by (Sari & Putri, 2021) proves that the *Financing to Deposit Ratio* (FDR) does not have aninfluence on Return *On Asset* (ROA) because the financing disbursed by the banking industry has not run effectively and optimally, causing non-current financing to increase in line with the total financing done.

The various studies above prove that there is a different influence from the ratio that is considered to have an effect on *Return on Asset* (ROA). Referring to the background that proves the inconsistency of the results of previous studies, researchers are interested in reviewing empirically and factually the "Effect of CAR, NOM, OCR, FDR on *Return on Assets* (ROA) in Islamic Commercial Banks for the 2016-2020 Period".

THEORETICAL FOUNDATIONS

Return On Asset (ROA)

Return On Asset is the ratio needed to estimate the profit from the company's activities normally (Kasmir, 2017). This ratio is able to show the level of management ability at the time of carrying out company activities as well as knowing the performance of an enterprise to make a profit in a certain period. The success of management by performing well will generate maximum profit for the company. The *Return On Asset* (ROA) can be calculated by the following formula:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Asset}} \times 100\%$$

Capital Adequacy Ratio (CAR)

Capital Adequacy Ratio (CAR) or commonly known as capital adequacy ratio. According to (Mainata, 2017) the ratio of Islamic banks' obligations in meeting the minimum capital aims to maintain bank liquidity and to measure bank capital adequacy in absorbing losses and fulfilling the minimum capital provision obligations (KPMM) of Islamic banks. The *Capital Adequacy Ratio (CAR)* can be calculated by the following formula:

$$\text{CAR} = \frac{\text{Tier 1 Capital} + \text{Tier 2 Capital}}{\textit{Risk Weighted Asset}} \times 100\%$$

In research that has been carried out (Edwar Yokeu Bernardin, 2016) proves that CAR has a positive and significant effect on ROA. Therefore, referring to research that has been done before, a hypothesis can be compiled as follows:

H_1 : CAR affects the ROA of Islamic Commercial Banks for the 2016-2020 period.

Net Operating Margin (NOM)

Net *Operating Margin* (NOM) ratio is a ratio used to measure the ability of bank management to manage its productive assets to generate profit-sharing income (Purwanto, 2012).

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The higher the NOM, the higher the ROA, which means it will increase the revenue sharing on productive assets managed by the bank, so that financial performance will increase. The *Net Operating Margin* (NOM) can be calculated by the following formula:

$$\text{NOM} = \frac{\textit{Total of Bad Financing}}{\text{Total of Financing}} \times 100\%$$

In research (Suparyanto and Rosad, 2015) proved that NOM has a positive and significant effect on ROA. Therefore, referring to previous theories and research, hypotheses can be compiled as follows:

H_2: NOM affects the ROA of Islamic Commercial Banks for the 2016-2020 period.

Operating Costs and Revenue (OCR)

Operating Costs to Revenue (OCR) are often known as efficiency ratios used to measure the ability of bank management to control operating expenses to operating income (Almilia and Herdiningtyas, 2005). The smaller the OCR means the more efficient the operational costs incurred by the bank. The Operating Costs and Revenue (OCR) can be calculated by the following formula:

$$\text{OCR} = \frac{\text{Operating Cost}}{\text{Operating Revenue}} \times 100\%$$

In research (Sudarmawanti & Pramono, 2017) proved that Operating Costs to Revenue (OCR) have apositive and significant influence on *Return On Asset (*ROA). Therefore, referring to previous theories and research, hypotheses can be compiled as follows:

H_3: OCR affects the ROA of Islamic Commercial Banks for the 2016-2020 period.

Financing to Deposit Ratio (FDR)

FDR is one of the indicators of the health of bank liquidity. Liquidity assessment is an assessment of the bank's ability to maintain adequate liquidity levels and adequacy of liquidity ratio management (Wangsawidjaja, 2013). The greater the amount of financing disbursed by a bank, the lower the bank's liquidity level will be. However, on the other hand, the greater the amount of financing provided, it is expected that the bank will get a high return as well. The *Financing to Deposit Ratio* (FDR) can be calculated by the following formula:

$$\text{FDR} = \frac{\text{Total Financing}}{\text{Total Deposite to Equity}} \times 100\%$$

Research (Utami, 2021) proved that FDR has a positive and significant effect on ROA. Therefore, referring to previous theories and research, hypotheses can be compiled as follows:

H_4 : FDR affects ROA in Islamic Commercial Banks for the 2016-2020 period.

RESEARCH METHODS

This research it is a quantitative research. The data used is secondary data sourced from the official website of the Financial Authority (OJK). Regarding the population in this study, namely Sharia Commercial Banks registered with the Financial Services Authority (OJK) for the period 2016-2020. The sampling technique uses *purposive sampling* with the following criteria: (1) M issued quarterly financial statements of Sharia Commercial Banks in 2016-2020 (2) The amount of research sample taken from this study is the quarterly financial statements of Islamic Commercial Banks in Indonesia in 2016- 2020. So that the number of samples used in this study amounted to 12 Sharia Commercial Banks with quarterly data.

The data analysis used is panel data regression analysis. Panel data analysis techniques include Model Estimation Test, Model Selection Test, Coefficient of Determination Test, F Test and t Test. Model Estimation Test is the stage of data processing by estimating the regression of the Common Effect Model (CEM), Fixed Effect Model (FEM), and *Random Effect Model* (REM) models. The

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next stage is the model selection test. The model selection test is used to determine which model should be used after estimation. In the model selection test, there is a Chow test and a Hausman test. The last stage is the interpretation of regression which is seen from 4 aspects, namely the regression equation, the coefficient of determination, the F test (simultaneous), and the T test (partial).

The regression formula is as follows:

$$ROA = \alpha + \beta_1 CAR_{1it} + \beta_2 NOM_{2it} + \beta_3 OCR_{3it} + \beta_4 FDR_{4it} + e_{it}$$

Information:

Y = ROA (*Return on Asset*)
α = Constant
β = Regression coefficient
e = Error

RESULTS AND DISCUSSION

Statistic Descriptive

The test was conducted on 12 Islamic Commercial Banks registered with the Financial Services Authority with the aim of showing the amount of minimum, maximum, average, and standard deviation values of each variable.

Tabel 2.
Statistic Descriptive

	ROA	CAR	NOM	BOPO	FDR
Mean	1.479815	29.18235	0.823272	92.88815	3214.775
Median	0.560000	18.96000	0.310000	94.91000	88.06500
Maximum	13.90000	330.8400	14.97000	204.5800	506600.0
Minimum	-6.860000	10.16000	-37.74000	40.36000	0.130000
Std. Dev.	3.319636	44.87298	4.854450	17.15208	39795.35

Panel Data Regression

Testing this hypothesis begins with testing the selection of the best model to be used. There are 2 tests, namely the chow test and the hausman test. Chow tests are carried out to select CEM (Common Effect Model) or FEM *(Fixed Effect Model) models*. If the significance value < 0.05 then the selected model is FEM, while the significance value is more 0.05 then the selected model is CEM *(Common Effect Model.* Next, conduct a thirst test to choose a FEM (Fixed Effect Model) or REM *(Random Effect Model)* model. If the significance value < 0.05 then the selected model is FEM, (Fixed Effect Model) while if the significance value > 0.05 then the selected model is REM *(Random Effect Model)*.

Tabel 3.
Hasil *Uji Chow*

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1699.703540	(11,146)	0.0000
Cross-section Chi-square	787.364760	11	0.0000

Tabel 4.
Hasil Uji *Hausman*

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	230.692371	4	0.0000

Based on the results of the chow test and hausman test above, it proves that the selected model is a *Fixed Effect Model* (FEM) because the significance value of the above test is less than 0.05. Here are the results of the *Fixed Effect Model* (FEM) test:

Tabel 5.
Hasil Uji *Fixed Effect Model*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.022240	0.098463	81.47493	0.0000**
CAR	0.052535	0.000547	95.97251	0.0000**
NOM	0.093260	0.004158	22.42945	0.0000**
BOPO	-0.087780	0.001107	-79.27473	0.0000**
FDR	4.43E-07	2.39E-07	1.853313	0.0659*

Description:
* Significant at the level of 10
** Significant at the level of 5

Based on the data above, the resulting regression formula for this study is as follows:

$$ROA = 8.022240 + 0.052535_{CARit} + 0.093260_{NOMit} - 0.087780_{OCRit} + 4.43E\text{-}07_{FDRit} + e$$

DISCUSSION

Effect of CAR on ROA

Based on the results of research that has been carried out, it is possible that the CAR variable obtained a coefficient value of 95.97251 and a significance value of 0.0000 < a significance level of 0.05. Referring to the results of studies that have been carried out resulting in that the first hypothesis is accepted or has a positive effect between CAR variables against ROA. This shows that the increase in ROA in Islamic Commercial Banks is influenced by the CAR ratio in this study.

This proves that Islamic Commercial Banks can optimize the available capital so that it can influence ROA by utilizing the excess existing capital to add to its profits through investment, cooperation and product offerings. The results of this research are supported by research that has been carried out by (Edwar Yokeu Bernardin, 2016) which proves that the *Capital Adequacy Ratio* (CAR) affects on ROA.

Effect of NOM on ROA

Based on the results of research that has been carried out, it is possible that the NOM variable obtained a coefficient value of 22,429 and a significance value of 0.0000 < a significance level of 0.05. Based on the results of research that has been carried out, it proves that the second hypothesis is accepted or has a positive effect between NOM variables and ROA. This shows that the increase in ROA in Islamic Commercial Banks is influenced by the NOM ratio in this study. The higher the NOM level, the higher the interest rate.

A high interest rate will increase the ability of capital owners to optimize it in the productive sector. If it is associated with bank profitability, with low investment, investors will also reduce bank debt, thereby reducing the bank's profitability level. The results of this study are in line with research conducted by (Suparyanto and Rosad, 2015) which proves that *Net Operating Margin* (NOM) has a positive and significant affects on ROA.

Effect of OCR on ROA

Based on the results of research that has been carried out, it is proven that the OCR variable obtained a coefficient value of -79.27473 and a significance value of 0.0000 < a significance level of 0.05. Based on the results of research that has been carried out, it is proven that the third hypothesis is accepted or negatively affects the OCR variable on ROA.

The results of this study show that OCR negatively affects ROA, which means that if the OCR value increases, the efficiency level of Islamic Commercial Banks decreases. The more efficient a bank is, its performance will continue to improve. The results of this study are supported by research that has been carried out by (Korri & Baskara, 2019) which proves that OCR has a negative and significant effect on ROA.

Effect of FDR on ROA

Based on the results of research that has been carried out, it is possible that the FDR variable obtained a coefficient value of 1.853313 and a significance value of 0.0659 < a significance level of 0.05 at a significant level of 10. Referring to the results of studies that have been carried out results in the fourth hypothesis being accepted or having an effect between FDR's variables on ROA. This suggests that the increase in ROA in Islamic Commercial Banks was not renewed by the FDR ratio in this study.

This is because Islamic Commercial Banks have channeled their financing effectively, so that the more financing disbursed by the bank, the profitability obtained by the bank also increases and will also increase the ROA. The results of this study are supported by research that has been carried out (Utami, 2021) which proves that the *Financing to Deposit Ratio* (FDR) affects on ROA.

CONCLUSION

Based on the results of the research above, it can be concluded that CAR has a positive effect on the ROA of Sharia Commercial Banks because banks can optimize the available capital so that they are able to influence ROA by utilizing the excess available capital to increase their profits through investment, cooperation and product offerings. Then the NOM variable has a positive effect on the ROA of Islamic Commercial Banks because the higher the NOM rate, the higher the interest rate. A high interest rate will increase the ability of capital owners to optimize it in the productive sector. Then the BOPO variable negatively affects the ROA of Islamic Commercial Banks because of the increase in the BOPO ratio which reflects the bank's lack of ability to reduce operational costs and increase its operating income which can cause losses because banks are less efficient in managing their Islamic Commercial Banks iness. The results of this study show that BOPO negatively affects ROA, which means that the higher the value of BOPO will have an impact on reducing income or profits in Islamic Commercial Banks. Then the FDR variable affects the ROA of Islamic Commercial Banks because because Islamic Commercial Banks have channeled their financing effectively, so that the more financing disbursed by the bank, the profitability obtained by the bank also increases and will also increase the ROA.

BIBLIOGRAPHY

Almilia dan Herdiningtyas, 2005. (2020). Analisis Pengaruh CAR, NPF, FDR, Bank Size, BOPO terhadap Kinerja Keuangan Bank Umum Syariah di Indonesia. *Jurnal Akuntansi dan Manajemen*, *17*(01),25-37. https://doi.org/10.36406/jam.v17i01.326

Das, N. A., Husni, T., Rahim, R., & Elfarisy, F. (2020). *Procuratio: Jurnal Ilmiah Manajemen*. *8*(4).

Edwar Yokeu Bernardin, D. (2016). *Pengaruh CAR dan LDR Terhadap Return on Assets*. *IV*(2),232-241. http://ejournal.bsi.ac.id/ejurnal/index.php/ecodemica

Fuad Hasyim. (2021). Statistika Terapan Untuk Bisnis dan Keuangan. In *Lintang Pustaka Utama* (Vol.1). https://doi.org/10.37641/jiakes.v9i2.870

Kasmir, 2017. (2019). Pengaruh CAR dan BOPO terhadap Return on Assets Bank Umum Syariah Tahun 2015-2019. *Jurnal Ekonomi Manajemen Perbankan*, *November 2018*, 1–10.

Korri, N. T. L., & Baskara, I. G. K. (2019). Pengaruh Capital Adequacy Ratio, Non Performing Loan, BOPO, dan Loan To Deposit Ratio Terhadap Profitabilitas. *E-Jurnal Manajemen Universitas Udayana*, *8*(11),65-77. https://doi.org/10.24843/ejmunud.2019.v08.i11.p10

Lemiyana, erdah litriani. (2016). Pengaruh NPF, FDR, BOPO Terhadap *Return on Asset* (ROA) Pada Bank Umum Syariah. *I-Economics: A Research Journal on Islamic Economics*, *2*(1), 31–49. http://jurnal.radenfatah.ac.id/index.php/ieconomics/article/view/1001

Mainata 2017. (2020). Pengaruh Rasio Kecukupan Modal, Likuiditas Dan Operasioal Terhadap Kinerja Keuangan Bank Syariah Di Indonesia (Studi Empiris Pada BRI Syariah). *Journal Development*, *8*(1),90-95. https://doi.org/10.53978/jd.v8i1.151

Purwanto, 2012. (2022). Saragih Br. Habibilah Henna, Rahmayati. *Pengaruh NPF Dan NOM Terhadap Proftabilitas Pada Bank Umum Syariah Yang Terdaftar Di Otoritas Jasa Keuangan (OJK) Periode 2015-2019*, 1-7.

Rahmani, N. A. B. (2017). Analisis Pengaruh *Capital Adequacy Ratio* (CAR) dan *Financing to Deposit Ratio* (FDR) terhadap *Return On Asset* (ROA) dan *Return On Equity* (ROE) Pada Perusahaan Bank Umum Syariah di Indonesia. *HUMAN FALAH: Jurnal Ekonomi Dan Bisnis Islam*, 4(2),300-316.

Ridho Fikri Almi, 2020. (2020). *Pengaruh Net Operating Margin* (NOM) dan *Operational Efficiency Ratio* (OER) Terhadap *Return On Asset* (ROA) pada PT. BNI Syariah. *Molecules*, *2*(1),1-12.

Sari, D., & Putri, P. (2021). Pengaruh Dana Pihak Ketiga, CAR, NPF dan FDR terhadap ROA pada Bank Syariah yang Terdaftar pada Bursa Efek Indonesia. *Nomicpedia: Journal of Economics and Islamic Commercial Banks iness Innovation*, *1*(1),1-13. https://journal.inspirasi.or.id/index.php/nomicpedia

Sudarmawanti, E., & Pramono, J. (2017). Pengaruh CAR, NPL, BOPO, NIM dan LDR Terhadap ROA (Studi kasus pada Bank Perkreditan Rakyat di Salatiga yang terdaftar di Otoritas Jasa Keuangan Tahun 2011-2015). *Among Makarti*, *10*(1), 1–18. https://doi.org/10.52353/ama.v10i1.143

Suparyanto dan Rosad (2015. (2020). Analisis

Pengaruh FDR,NPF, BOPO, NOM, dan CAR terhadap Profitabilitas (ROA) pada Bank Syariah Di Indonesia. *Suparyanto Dan Rosad (2015*, *5*(3), 248–253.

Suryanto, D. A., & Susanti, S. (2020). Analisis Net Operating Margin (NOM), Non Performing Financing (NPF), Financing to Debt Ratio (FDR) dan Pengaruhnya Pada Efisiensi Perbankan Syariah di Indonesia. *8*(1),29-40. https://doi.org/10.17509/jrak.v8i1.19331 .Copyright

Utami, D. H. (2021). Pengaruh *Financing To Deposit Ratio* (FDR), *Debt To Equity Ratio* (DER), Biaya Operasional Terhadap Pendapatan Operasional (BOPO) terhadap Profitabilitas (ROA) Studi Kasus Maybank Syariah Indosesia Tahun 2014-2018.