



Analysis of The Effect of Financial Ratios on ROA in Islamic Commercial Banks in Indonesia

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DOI: doi.org/10.54099/ijibmr.v3i2.624

ARTICLE INFO

Research Paper

Article history:

Receive: 22 June 2023

Revised: 27 November 2023

Accepted: 20 December 2023

Keywords : Financial ratios, profitability, Islamic banking

ABSTRACT

Currently, Islamic banks are growing rapidly, starting in 1983, where BI gave freedom to banks to set interest rates, in order to create a healthy and strong bank, by implementing a profit-sharing system. The development potential of Islamic banks is very open, to become a leading bank at the global level. One of the government's missions is to develop the halal industry, making Islamic banks large and powerful in the country with the largest Muslim population in the world. This study uses research samples published in the Financial Services Authority of the Republic of Indonesia with annual data for 13 years from 2010 to 2022. The population in this study is 8 out of 14 Sharia Commercial Banks that are registered with OJK and have complete financial statements. The data analysis method in this study with panel data regression using SPSS 25 and eviews 10. From the results of the t test, **It was found** that an increase in the value of CAR will increase profitability (ROA) as well and conversely the lower the value of CAR, profitability will also decrease, while NPF has a significant negative effect on ROA, meaning the level of risk from financing provided by Islamic banks is quite low, income will increase. High and low NPF has an impact on increasing and decreasing ROA.

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INTRODUCTION

Banking is one of the important sectors in developing the country, because it is a support in times of crisis, such as when the Covid Pandemic occurred. The need for good performance of both Private Commercial Banks and Islamic Commercial Banks, profitability ratios, liquidity ratios and solvency ratios is very important for banking performance. Although fluctuations in changes occurred during the crisis, the profitability ratio in Islamic banking was classified as efficient, in the liquidity ratio in some banks there was a decrease in cash ratio, the solvency ratio in general showed good performance.

Global Islamic banking finance projects growth of 10% - 12% in the period 2021 to 2022. In 2020 it slowed by 10.6%. It is estimated that by 2024 the Islamic financial industry will reach 3.5 Trillion Dollars. The Islamic Financial Service Industry Stability Report 2021 explains that the total assets of Islamic banks globally reached 68.2%, at the end of 2020, higher than sharia insurance which was only 0.9%. The Islamic capital market accounts for half of the Islamic banking percentage of 30.9%. From Fitch ratings 2022 data, global sukuk issuance grew 11.6% to USD 64.5 billion in Q1 2022, global sukuk in circulation has reached USD 722.8 billion, at the end of Q1 2022, 1.5% up from the end of 2021.

Islamic banks are currently one of the best and most complete systems, which are recognized internationally. In June 2015, the Islamic banking industry contained 14 commercial banks, 22 business units in conventional banks and 162 rural banks with assets amounting to Rp 273.494 trillion, 4.61% of the share. With assets reaching 2.1% lower than Malaysia's 11.4% in 2020, to increase market share through challenges

including literacy and public awareness of Islamic banking products. The market share in Q3 2017 was 5.57%, now reaching 6.52% in Q3 2021.

Piliang and Wakil (2008), banking financial performance in the form of financial ratios, provides information to external parties regarding information, which includes liquidity, asset management, solvency ratio and profitability ratio. CAR has no significant effect on the ROA of Ardichy (2022) and Hakim L (2023), while CAR has a significant effect on the ROA of Afrilien (2023) and Agustin (2018), FDR has a negative effect on the ROA of Afrilien (2023) and Pradana (2023), while FDR has an influence on the ROA of Hanufa (2022), Ardichy (2022) and Hakim (2023). NPF has a negative influence on ROA, Ardichy (2022), while NPF has a negative influence on the ROA of Pradana (2023) and Hanufa (2022). BOPO has a negative influence on the ROA of Afrilien (2023), Ardichy (2022) and Agustin (2018), while BOPO has a significant influence on the ROA of Hakim (2023) and Purbaningsih (2018).

The results of the presentation and conclusions were obtained, then an analysis of the effect of financial ratios on profitability in Islamic Banks from 2010 to 2022 was carried out. This study seeks to determine which financial ratios of CAR, FDR, NPF and BOPO have the most influence on the profitability of Islamic Banks in the 13-year period from 2010 to 2022.

LITERATURE REVIEW

Sharia Banking

Broadly speaking, the Islamic financial industry is divided into several sectors, namely the Islamic banking sector and the Islamic capital market, the Islamic non-bank industry. Financial institutions financing and other services, in their activities are guided by sharia principles, according to Najim Nur Fauziah, Sharia Business Unit of ICDX. There are 3 priority policy directions for OJK in 2023, namely:

1. Financial sector, with good and correct management through rules, monitoring and improvement of the financial industry, as well as ease of investment in the domestic market.
2. Improving the economy, Indonesia through sharia and global investment, in order to create attractiveness in the domestic market, there needs to be reforms and appropriate strategies to get access to MSMEs.
3. Good service from OJK as a financial institution of SJK

Financial Statement Components

Kasmir (2008) financial statement components are ratios used by comparing components in one reporting period, which are used in measuring management work, according to specified targets by using capabilities effectively and efficiently.

ROA

Mudrajat Kuncoro (2012) ROA is used to manage all assets owned. This most crucial profitability ratio is used to compare the bank's performance in one period with the next, in order to be implemented in the future. ROA as an indicator in measuring the management of assets owned in obtaining profits.

CAR

Mudrajat Kuncoro (2012) indicator to measure bank performance by completing deficiencies due to declining performance due to risky activities with capital adequacy. Calculations are carried out by improving performance through supervision and control of risks that have an impact on bank capital. The CAR value is good by 8%, increasing in value, the bank shows good performance, strong in the face of risk both credit and other activities.

FDR

Wangsawidjaja (2012) FDR is a ratio that describes how much of the deposits provided are in the form of financing in measuring adequate bank liquidity levels and risk management. The increasing amount of financing disbursed by banks is expected to get high returns, and lower levels of bank liquidity. Raising funds from deposits, capital participation and special investment. Kasmir (2012) on Islamic banking, loans as financing with the same general concept in banks to measure liquidity, with FDR, according to SE BI No.6/23/DPNP, 31/05/2012, FDR value of 85%-110%

NPF

Kuncoro (2011) risks arising from financing bribery and the influx of capital from different portfolios become risks due to failure to pay for loan repayment according to the terms of return. The NPF of Islamic banks is well below 5%, if including non-performing financing, the NPF is above 5%.

CAR

Kuncoro (2022) indicator measures the work of banks in dealing with declines that occur due to risky activities with their capital adequacy. Calculation of capital with risks that affect capital. CAR is good at 8%, as it increases in value, the greater it is in dealing with financing risks or other risky activities.

BOPO

Dendawijaya (2009) is a profit obtained from placing capital, used in the efficiency of activities that affect bank performance by using all production factors appropriately and effectively. BOPO is a comparison of operational costs which include interest, marketing, labor and others with profit as the main advantage.

Effect of CAR on ROA

Arifin (2009) explained that CAR has 3 functions, namely as a means of supporting and channeling due to operational losses and others, so the profits to be obtained can increase. The source of capital has increased, the profit (ROA) that will be obtained will also increase.

FDR's effect on ROA

Wangsawidjaja (2012) FDR is financing compared to third party funds owned by banks. When FDR is high, liquidity is low, when banks are struggling. problematic conditions. FDR declined, illustrating less effectiveness in lending. A good ratio in Islamic banks is below 100%, there is an increase in profits, which is a component of ROA.

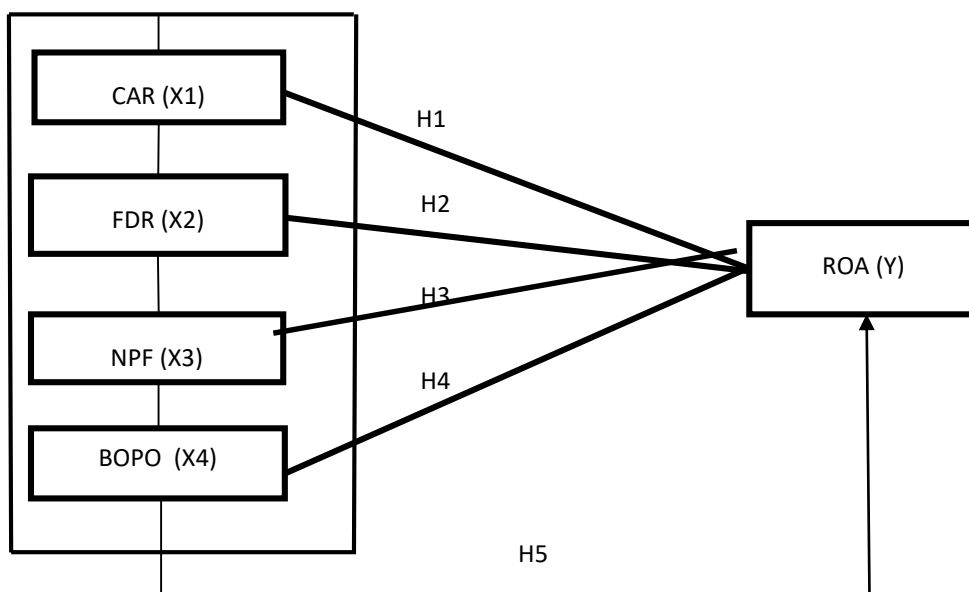
The effect of NPF on ROA

Muhammad (2004) investment funds, there is a risk of losses arising and reducing profitability, due to inefficient use of money. As an indicator measuring the use of funds. NPF increases, then profits decrease, which results in losses or decreased profitability.

BOPO's relationship to ROA

Dendawijaya (2009) is a calculation of performance efficiency, if BOPO is low, operational costs are efficient, banks have a high chance of profiting. If BOPO is high, operations do not run efficiently, there is a decline in bank financial performance.

Figure 1. Framework



Hypothesis:

H1: CAR has an influence on the profitability (ROA) of Bank Syariah

H2: FDR has an influence on the profitability (ROA) of Islamic Banks

H3: NPF has an influence on the profitability (ROA) of Islamic Banks

H4: BOPO has an influence on the profitability (ROA) of Islamic Banks

Ho : CAR, FDR, NPF and BOPO have no effect on profitability (ROA)

Ha : CAR, FDR, NPF, BOPO has an influence on profitability (ROA)

METHOD

Data Sources

The data used is in the form of financial ratios from 2010 to 2022 with 13 annual data from 8 Islamic commercial banks from 14 BUS in OJK. Data is obtained from the financial ratios of publications contained in OJK. Data collection with associative, quantitative approach, multiple regression analysis. Data is obtained from the OJK website and the annual financial report website of each bank. Analysis with statistical tests, panel data regression methods, with Microsoft Excel, Eviews 10 and SPSS 25. The dependent variables are ROA and independent CAR, FDR, NPF and BOPO from 8 Sharia Commercial Banks, for 13 years from 2010 to 2022.

From regression research conducted using the regression analysis method, the equation is obtained: $ROA(Y) = \alpha + X_1 CAR + X_2 FDR + X_3 NPF + X_4 BOPO + \varepsilon$

Where:

A = Constant Value

Y = Profitability (ROA)

X_i = Koef. Regression

X1 = Solvency (CAR)

X2 = Liquidity (FDR)

X3 = Profitability (NPF)

X4 = Profitability (BOPO)

ε = Error

Research with secondary data must meet the following hypothesis tests :

- Descriptive Statistical Test
- Classical Assumption Test
- Test t, partial.
- Test F, simultaneous
- Adjusted R²

RESULTS AND DISCUSSION

Descriptive Statistics

Table 1. Descriptive Statistics

	Data	Min	Max	Average	Std. Deviation
ROA	104	-10.77	13.58	1.4089	3.40553
CAR	104	11.10	196.14	28.1774	24.65541
FDR	104	16.98	162.97	87.1174	17.91413
NPF	104	.00	22.04	3.3583	3.24889
BOPO	104	50.76	217.44	93.1749	23.46405
Valid N (listwise)	104				

Source : Data processed

From table 1 above, it can be seen that the growth of financial ratios for 13 years, the lowest ROA percentage value minus 10.77% Panin Dubai Syariah 2017, the highest 13.58% Bank BTPN Syariah in 2019, the average 1.4089 and standard deviation 3.40553 from the 8 Sharia Commercial Banks studied.

- The lowest CAR of 11.10% occurred in Bank Bukopin Syariah in 2013, the highest of 196.14% in Bank Victoria Syariah in 2010, averaging 28.1774 and standard deviation of 24.65541.
- The lowest FDR of 16.98% occurred in Bank Victoria Syariah in 2010, the highest of 162.97% in Bank Panin Dubai Syariah in 2011, average of 87.1174 and standard deviation of 17.91413.
- The lowest NPF of 0.00% occurred at Bank Panin Dubai Syariah in 2010, the highest of 22.04% at Bank Jabar Banten Syariah in 2017, averaging 3.3503 and standard deviation of 3.24889.
- The lowest BOPO of 50.76% occurred at Bank Panin Dubai Syariah 2012, the highest was 217.44% at Bank Panin Dubai Syariah 2017, averaging 93.1749 and standard deviation 23.46405.

Panel Data Regression Model Selection

Selection of the right estimation model estimation model from panel data estimation, from the three types of panel data models are Common Effect Model (CEM), Fixed Effect Model (FEM) and Random Effect Model (REM) through the Chow test, Hausman Test, and Lagrange Multiplier Test. The Lagrange Multiplier test will be required only on chow test and hausman test tests when both show unequal results.

Test Chow

Table 2. Test Chow

Effect Test	Statistics	d.f	Prob
F cross section	15.307904	(7,92)	0.0000
Chi-square cross section	80.318834	7	0.0000

Source : Data processed

From table 2, it can be seen that the results of the chow test have a probability value of 0.0000 on Cross Section Chi-Square, which indicates that the value of Cross Section Chi-Square is less than 0.05. Therefore, the correctness of using the FEM (fixed effect model) model is approved.

Hausman Test

Table 3. Hausman Test

Test Summary	Chi-sq. Statistics	Chi-sq. D.F.	Prob.
Random cross section	9.885893	4	0.0424

Source : Data processed

From table 3 above, it can be seen that the results of the Hausman test have a probability value of 0.0424 on Cross Section Chi-Square, which indicates that the value of Cross Section Chi-Square is less than 0.05. Therefore, the correctness of using the FEM (fixed effect model) model is approved.

Validity Test

Table 4. Validity Test

		Correlations				
		ROA	CAR	FDR	NPF	BOPO
ROA	Pearson Correlation	1	.192	.231	.526**	.700**
	Sig. (2-tailed)		.041	.139	.000	.000
	N	104	104	104	104	104
CAR	Pearson Correlation	.192	1	.188	.258**	.172
	Sig. (2-tailed)	.041		.056	.008	.018
	N	104	104	104	104	104
FDR	Pearson Correlation	.231	.188	1	.369	.203
	Sig. (2-tailed)	.139	.056		.484	.038
	N	104	104	104	104	104
NPF	Pearson Correlation	.526**	.258**	.369	1	.438**
	Sig. (2-tailed)	.000	.008	.484		.000
	N	104	104	104	104	104
BOPO	Pearson Correlation	.700**	.172	.203	.438**	1
	Sig. (2-tailed)	.000	.018	.038	.000	
	N	104	104	104	104	104

From table 4 above, the degree of correlation between ROA and CAR, ROA and FDR, ROA and NPF, ROA and BOPO, CAR and FDR, CAR and NPF, CAR and BOPO, FDR and NPF, FDR and BOPO, NPF and BOPO is declared valid. The degree of correlation between ROA and CAR, ROA and FDR, ROA and NPF, ROA and BOPO, CAR and FDR, CAR and NPF, CAR and BOPO, FDR and NPF, FDR and BOPO, NPF and BOPO is declared valid. The value of Sig. (2-tailed) < 0.05 and Pearson Correlation is positive, then the data is valid, Sugiyono (2017)

Reliability Test

Table 5. Reliability Test

Alpha	Cronbach's Alpha	N Number of Items
.791	.883	5

Source: : Data processed



From table 5 above, it is known that the Cronbach Alpha value is 0.791, where this value is greater than 0.6, the data is declared reliable. Reliability test is the extent to which measurement results using the same object, will produce the same data (Sugiyono, 2017).

Normality

Table 6. Normality Table
Normality Test

N		104
Normal Parameters ^{a,b}	Mean	1.4454
	Std. Deviation	2.27595846
Most Extreme Differences	Absolute	.231
	Positive	.231
	Negative	-.141
Test Statistics		.231
Asymp. Sig. (2-tailed)		.178

Source : Data processed

From table 6 it can be seen that the significance value of the data of the variables CAR, FDR, NPF and BOPO is 0.178 greater than 0.05, it can be seen that all variables in this study are normally distributed.

Multicollinearity Test

Table 7. Multicollinearity
Coefficients^a

		Coefficients Unstandardize d		Coefficients Standardize d	Value of t	Significance.	Statistics Collinearity	
		B	Standard error	β			Tolerance value	VIF value
	Constant	8.756	1.790		4.892	.000		
	CAR	.008	.011	.054	.686	.495	.904	1.106
	FDR	.009	.015	.047	.616	.539	.963	1.038
	NPF	-.254	.091	-.238	-2.778	.007	.765	1.308
	BOPO	-.076	.012	-.513	-6.149	.000	.807	1.239

Source : Data processed

From table 7, it can be seen that the VIF value of all independent variables appears below 10 and the tolerance number is smaller than one, meaning that there is no multicollinearity in the regression analysis model in this study.

Heterokedasticity Test

Table 8. Heterokedasticity

Var	Coefficient	Standard error	Statistical value t	Probability
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c	0,478382	1.101172	0.434430	0.6649
X1	0,025858	0.006820	3.791319	0.0573
X2	0,011515	0.009094	1.266226	0.2084
X3	-0,049134	0.056278	-0.873062	0.3847
X4	-0,006436	0.007584	-0.848676	0.3981

Source : Data processed

From table 8, it can be seen that the VIF value of all independent variables appears below 10 and the tolerance number is smaller than one, meaning that there is no multicollinearity in the regression analysis model in this study.

Table 9. Autocorrelation
Model Summary^b

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			Sig. F Change	D-W
					F Change	df1	df2		
1	.744 ^a	.553	.535	2.32148	30.664	4	99	.000	1,972

a. Predictors: (Constant), BOPO, FDR, CAR, NPL

b. Dependent Variable: ROA

Source : Data processed

From table 8 above, the probability value F calculate the variable used has a value greater than 0.05, it is concluded that there is no heterokedasticity

Regression results with a significance of 5 percent, with n = 104, independent variable k as much as 4, calculated DW value obtained by 1.972, DW table with dl value of 1.6006, dU value of 1.7610, magnitude of value 4 minus dU by 2.239. It can be seen that the dU value is smaller than d and smaller than 4-dU = 1.7610 < 1.972 < 2.239, it can be seen that there is no autocorrelation in the study, so the analysis can continue.

Regression results with a significance of 5 percent, with n = 104, independent variable k as much as 4, calculated DW value obtained by 1.972, DW table with dl value of 1.6006, dU value 1.7610, magnitude of value 4 minus dU by 2.239. It can be seen that the dU value is smaller than d and smaller than 4-dU = 1.7610 < 1.972 < 2.239, it can be seen that there is no autocorrelation in the study, so the analysis can continue.

Partial hypothesis test (t)

- CAR sig. 0.0573 > 5 percent, t hit 3.791319 > t in table 1.660, H1 accepted, the influence of CAR on ROA, in line with Afrilien (2023) and Agustin (2018), in contrast to Ardichy (2022) and Hakim (2023).
- FDR sig. 0.2084 > 5 percent, t hit 1.266226 > t in table 1.660, H2 accepted, FDR's influence on ROA is in line with Hanufa (2022), Ardichy (2022) and Hakim (2023), in contrast to Afrilien (2023), Pradana, (2023)
- NPF has sig. 0.3847 > 5 percent, t hit 0.873062 < t in table 1.660, that the NPF variable has no influence on the ROA variable, H3 is rejected, NPF does not affect the ROA of Islamic Banks in line with Ardichy (2022), in contrast to Pradana (2023) and Hanufa (2022)
- BOPO has a sig value. 0.3981 > 0.0573, t hit 0.848676 < t table 1.660, that the BOPO variable has no influence on the ROA variable, H4 is rejected, BOPO does not affect the ROA of Islamic Banks, in line with Afrilien (2023), Ardichy (2022) and Agustin (2018), in contrast to Hakim (2023) and Purbaningsih (2018).

Simultaneous hypothesis (F test)

Obtained sig. 0.000 is less than 0.05, with f hits. 30.664 > f in table 2.464 that the independent variable has an influence on the dependent variable. The conclusion is accepted that simultaneously ROA is significantly influenced by CAR, FDR, NPF and BOPO.

Coefficient of Determination (R₂)

An R-Square adjustment of 0.535 equal to 53.5% shows that together ROA is explained by independent variables 53.5%, the remaining 46.5% is explained by other variables.

Regression equation

The value of the constant α is 8.756, koef. regression CAR 0.008, FDR 0.009, NPF -0.254 and BOPO -0.076, the regression equation is:

$$ROA (Y) = 8.576 + 0.08 \text{ CAR (X1)} + 0.09 \text{ FDR (X2)} - 0.254 \text{ NPF (X3)} - 0.076 \text{ BOPO (X4)}$$

If the CAR, FDR, NPF and BOPO values are 0, then the ROA value is 8.576. If the CAR regression coefficient increases by 1% then ROA increases by 0.008, FDR increases by 1% then ROA increases by 0.009, NPF increases by 1%, ROA decreases by -0.254 and BOPO increases by 1% while ROA decreases by -0.076,

DISCUSSION

The Influence of Capital Adequacy Ratio (CAR) on Return on Assets (ROA)

Based on the t test value, the resulting hypothesis is that there is a positive influence on the significance of the Capital Adequacy Ratio (X1) which occurs partially on Sharia Bank ROA (Y), H_a is accepted. High yields on CAR can result in an increase in Return On Assets (ROA). The results of this research are in line with Afrilien (2023) and Agustin (2018), this is due to the attitude of Sharia Bank management which always maintains a fixed CAR level at the BUS so that it is in accordance with Bank Indonesia regulations with a minimum value of 8%.

The Effect of Financing to Deposit Ratio (FDR) on Return on Assets (ROA)

Based on the t test value, the resulting hypothesis is that there is a positive influence on the significance of the Financing to Deposit Ratio (X2) which occurs partially on Sharia Bank ROA (Y), H_a is accepted. High yields on CAR can result in an increase in Return On Assets (ROA). The results of this research are in line with Hanufa (2022), Ardichy (2022) and Hakim (2023), this is due to the number of loans given to customers increasing in proportion to the profits obtained

The Effect of Non Performing Financing (NPF) on Return on Assets (ROA)

Based on the t test value, the resulting hypothesis is that there is a negative influence on the significance of Non Performing Financing (X3) which occurs partially on Sharia Bank ROA (Y), H_0 is accepted. High yields on NPF can result in a decrease in Return On Assets (ROA). The results of this research are in line with Ardichy (2022), this is because the increasing level of problematic financing results in a decrease in bank profits due to the distribution of non-refundable funds.

The Effect of Operating Expenses on Operating Income (BOPO) on Return on Assets (ROA)

Based on the t test value, the resulting hypothesis is that there is a negative influence on the significance of Operating Expenses, Operational Income (X4) which occurs partially on Sharia Bank ROA (Y), H_0 is accepted. A high yield on BOPO can result in a decrease in Return On Assets (ROA). The results of this research are in line with Afrilien (2023), Ardichy (2022) and Agustin (2018), this is because if the BOPO value is high then the bank's operations will not run efficiently due to a decline in the bank's financial performance.

CONCLUSION

From the analysis and discussion, the following conclusions were obtained Research from 8 BUS 2010 – 2022 shows a significant effect of CAR on ROA. An increase in the value of CAR, resulting in the value of ROA will increase as well and the lower the value of CAR, the ROA will also decrease. NPF has a significant negative effect on ROA, meaning that the level of risk from financing provided by Islamic banks is quite low, income will increase. High and low NPF has an impact on increasing and decreasing ROA. The variables CAR, FDR, NPF and BOPO simultaneously have a significant influence on ROA. The coefficient of determination is 53.5% and the remaining 46.5% comes from factors other than variables in the study. It is recommended to use samples from other sectors, with the latest data (2023) and a longer period of time, so that further research exploration can examine more deeply and completely.

Reference

A. Wangsawidjaja (2012). Sharia Bank Financing, Jakarta : PT. Gramedia Main Library

- Afrilien, Fridiani (2021). Analysis of the Influence of Internal Factors and External Factors on the Profitability of Sharia Commercial Banks for the 2018-2021 Period. URI:<https://digilib.iainptk.ac.id/xmlui/handle/123456789/2321>.
- Agustin, P.T and Darmawan (2018). The Effect of Financial Ratios on Financial Performance of Sharia Banks (Study on Sharia Commercial Banks Registered with the Financial Services Authority of the Republic of Indonesia in 2014-2016). *Journal of Business Administration*, 64(1), 102-108.
- Ardichy.M.F and Rahayu Y.S (2022). The Effect of Financial Ratios on Profitability at Sharia Commercial Banks in Indonesia for the 2017-2021 Period. *Accounting Research and Journal*, 6(3), 2432-2445. <https://doi.org/10.33395/owner.v6i3.924>
- Arifin.Z (2009). *Basics of Sharia Bank Management*. Jakarta : Azkia Publisher.
- Ceta Indra Lesmana, Lutvi Alamsyah and Ema Widya Kalpikawati (2022). The Effect of Liquidity Ratio and Solvency Ratio on Return On Asset (ROA) That Affects Stock Prices (Case Study of Sharia Commercial Bank Listed on Indonesia Stock Exchange). *Journal of Islamic Studies*, K.H Abdul Chalim Islamic Boarding School Institute Mojokerto, Indonesia, Kartika, Vol.2, No.2, November 2022
- Dendawijaya, L. (2009) *Banking Management*. Ghalia Indonesia.
- Hakim L, Pamitkasih M and Setiabudi H (2023). Analysis of the Effect of CAR, NPF and FDR on the ROA of Sharia Commercial Banks. *Jesya (Journal of Economics and Sharia Economics)*, 6(1), 661-673. <https://doi.org/10.36778/jesya.v6i1.1008>.
- Cashmere (2008). *Financial Statement Analysis*, 7th Edition. Raja Grafindo Persada, Jakarta
- Kuncoro and Suhardjono (2011). *Banking Management (Theory and Application)*, Second edition, BPFE, Yogyakarta.
- Muhammad (2002). *Sharia Bank Management*, Yogyakarta : UPP STIM YKPN
- Muhammad and Dwi Suwiknyo (2005). *Sharia Banking Accounting*, Yogyakarta, Trustmedia
- Nadlira and Hunufa, Ainun (2022) Analysis of the Influence of Intellectual Capital and Financial Ratios on Financial Performance of Sharia Commercial Banks in Indonesia (Empirical Study on Sharia Commercial Banks registered with the Financial Services Authority for the 2014-2019 Period). *Indonesian Journal of Islamic Business and Economics (S1)*, Vol.4, No.1, 16-39, March 2022, ISSN 2722-8002, <http://jos.unsoed.ac.id/index.php/ijibe/article/view/8713>. <https://doi.org/10.32424/1.ijibe.2022.4.1.8713>.
- Financial Services Authority (2020). *Sharia Banking Statistics*. <https://www.ojk.go.id>
- Piliang, E and Deputy, A (2008). Financial Performance Analysis Using Financial Ratios and Economic Value Added (Case Study : PT. Bank Syariah Mandiri). *Tazkia Islamic Finance and Business Review*, 3(2)
- Pradana A and Erskhadifa R (2023). Analysis of the Effect of Financing Products and Risk on the Profitability of Sharia Commercial Banks for the 2014-2021 Period. *Journal of Student Research in Social Sciences, Economics and Business (SOSEBI)*, 3(1), 38-55. <http://doi.org/10.21274/sosebi.v3i1.6141>
- Purbaningsih, R.Y.P and Fatimah, N (2018). The Effect of Liquidity Risk and Non-Performing Financing (NPF) Ratio on Profitability in Sharia Commercial Banks in Indonesia. *International Journal of Business, Economics and Law*, 16(1),5.
- Sugiyono. (2013). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. Alfabeta
- Suryadibrata S (2011), *Metode Penelitian*, PT.Raja Grafindo Persada, edisi cetakan 22