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The Effect of Capital Adequacy Ratio (CAR), Operating Expenses and Operating Income (BOPO), and Net Core Operating Margin (NCOM) on Financial Sustainability Ratio (FSR) in Islamic Banking in Indonesia for the 2017-2021 Period

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ABSTRACT

This study aims to determine the effect of the Capital Adequacy Ratio (CAR), Operating Expenses and Operating Income (BOPO), and Net Core Operating Margin (NCOM) on the Financial Sustainability Ratio (FSR) partially and simultaneously. This study used a quantitative approach. The type of data used is secondary data obtained from the annual financial statements published on the official website of each Sharia Commercial Bank for the 2017-2021 period. The sample in this study amounted to 10 Sharia Commercial Banks in Indonesia selected by purposive sampling method. The data analysis techniques used are descriptive statistical analysis, classical assumption tests, hypothesis tests, and multiple linear regression tests with the help of SPSS software. The results showed that the Capital Adequacy Ratio (CAR) had a partial positive and insignificant effect on the Financial Sustainability Ratio (FSR). In part, BOPO has a negative and significant effect on the Financial Sustainability Ratio (FSR). Partially, the Net Core Operating Margin (NCOM) has a positive and significant effect on the Financial Sustainability Ratio (FSR). Simultaneously, the variables Capital Adequacy Ratio (CAR), Operating Cost and Operating Income (BOPO), and Net Core Operating Margin (NCOM) have a significant effect on the Financial Sustainability Ratio (FSR) and the value of the coefficient of determination (R^2) of 0.608 or 60.8%.

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INTRODUCTION

The onset of the economic crisis in 1997 has resulted in bankruptcies in several banks. At that time Islamic banking could survive because it had advantages by applying the principle of profit sharing as a basis in its operational activities and prohibiting interest. To develop and maintain the stability of the country's economy, the existence of bank institutions including Sharia Commercial Banks is currently very necessary. Therefore, banks must still be able to carry on their business in the long term (going concern) to keep it sustainable It's not just momentary interests. (Saputri, 2019)

Sustainability issues are the highest priority for banks in the continuity of their operations related to the sustainability of product and service development. Good bank sustainability, especially from the financial side, will affect bank performance, and keep banks from bankruptcy risk in the long run.(Nurhikmah & Rahim, 2021)

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To assess sustainable finance, a financial analysis is needed. Financial Sustainability Ratio (FSR) can be used as a ratio to measure financial sustainability in the future. FSR is a ratio to measure the sustainability of a bank in terms of bank financial performance. This ratio is also used to determine the bank's ability to generate and increase returns to achieve and maintain its long-term existence.(Yuliawati, Jensen, & Saputri, 2020)

Based on The Consultative Group to Assist the Poor (CGAP) which is a consultative group to help the poor under the auspices of the World Bank, the standard value for FSR is above 100%. The larger the FSR of a bank, the greater the ability of a bank to continue its operations, using the FSR ratio can be known information about the sustainability and growth rate of the bank in the long run. The FSR condition of Sharia Commercial Banks in Indonesia during the research period (2017-2021) can be seen in Table 1.1 below:(The World Bank, 2022)

Table 1 Sharia Commercial Bank FSR Data 2017-2021 (expressed in %)

Sharia Commercial Bank	2017	2018	2019	2020	2021	Mean
Aceh Sharia	140,91	136,74	142,75	132,75	136,21	137.87
Muamalat	101,86	81,68	66,46	103,77	100,85	**90.92**
Victoria Syariah	80,52	90,95	82,36	84,93	72,74	**84.69**
BJB Sharia	107,68	114,30	113,34	112,44	119,50	113.45
Mega Syariah	119,07	109,53	110,35	123,22	133,70	119.17
Panin Sharia	61,16	96,01	93,00	92,63	60,62	**80.68**
Bukopin Sharia	102,04	101,26	101,06	103,47	31,38	**87.84**
BCA Syariah	117,82	119,65	116,63	116,90	117,10	117.62
BTPN Syariah	134,49	140,70	146,60	128,30	141,01	138.22
Aladin Syariah	98,86	55,30	111,23	112,89	23,34	**80.32**

Source: Annual Report In 2017-2021, data is processed.

Based on Table 1.1 above, it can be concluded that the FSR value of Islamic Commercial Banks fluctuated during the 2017-2021 period. The lowest FSR value occurred at Bank Aladin Syariah in 2021 at 23.34%. The highest FSR occurred at Bank BTPN Syariah in 2019 at 146.60%. Then there are five Sharia Commercial Banks (BUS) that have an average value of FSR ratio below the standard set by CGAP, which is below 100%. and there was a decline, namely Bank Muamalat Indonesia, Bank Victoria Syariah, Bank Panin Syariah, Bank Bukopin Syariah, and Bank Aladin Syariah.

One of the factors that affect FSR is the Capital Adequacy Ratio (CAR). According to Muhammad, CAR is a ratio that shows the bank's ability to provide funds for operational and business needs and cover the risk of losses caused by bank operations. The greater this ratio, the better the capital position will be in covering losses. With circumstances like this, the financial ability is sustainable, or (Muhammad, 2015)financial sustainability ratio can be achieved according to predetermined targets. So an increase in CAR can cause an increase in the FSR of a bank, in this case, the bank's financial performance becomes increasingly increasing.

Other factors that influence FSR include Operating Costs to Operating Income (BOPO). According to Rivai, BOPO is a ratio used to measure the level of efficiency and ability of banks in carrying out their operations. The smaller the BOPO ratio, the more efficient the operational activities carried out by the bank, because the bank concerned can cover its operational costs with the operating income obtained. This happens because when BOPO goes down, banks manage to minimize their operational costs and make bank sustainability opportunities (FSR) bigger or increase. (Rivai, 2013)

Another factor affecting FSR are Net Core Operating Margin(Yusuf, 2017) (NCOM). NCOM is a ratio used to measure the ability of bank management to manage its productive assets to generate a net profit-sharing margin. This is supported by Frianto Pandia's theory, which states that the results of NCOM calculations show the ability of bank management to manage its productive assets to generate profit-sharing income. The greater NCOM shows an increase in a bank's operating income on assets under management, the higher the potential financial sustainability of the bank as measured by the financial sustainability ratio (FSR). (Pandia, 2012)

RESEARCH METHOD

Research Approach

This research is a type of quantitative research with an associative approach. Quantitative research is research that demands a lot of the use of numbers, ranging from data collection, interpretation of the data, and the appearance of the results. The associative approach (correlational) is research that is related between two or more variables, whereas data analysis uses more statistical analysis depending on the form of the relationship of the research variables. Causal relationships are causal relationships, the research variables include independent variables / independent variables (influential) and dependent variables / dependent variables (influenced).(Suyoto & Sodik, 2015)(Agung & Yuesti, 2019)

Data Types and Sources

The type of data used in this study is quantitative data type. Quantitative data is data in the form of numbers or numbers, where this quantitative data can be processed and analyzed using statistical techniques. (Digdowiseiso, 2017)

The data source used in this study is secondary data. Secondary data is data obtained or collected by researchers from various existing sources (researchers as secondhand), this data can be obtained through various sources such as the Central Bureau of Statistics (BPS), books, reports, journals, and others (Digdowiseiso, 2017). In this study, secondary data was obtained from annual financial statement data (Annual report) of Sharia Commercial Banks in the 2017-2021 period downloaded on the official website of each Sharia Commercial Bank, as well as data released by the Financial Services Authority in the form of Islamic banking statistics for the December 2017-2021 period obtained from www.ojk.go.id.

Population and Sample

This study uses purposive sampling as a method of sample selection. Purposive sampling that is, sample selection techniques that are adjusted to certain criteria based on research objectives. Based on these criteria, 10 samples can be drawn from 12 Sharia Commercial Banks registered with the OJK as of December 2021 to be the subject of research, namely Bank Aceh Syariah, Bank Muamalat, Bank Victoria Syariah, West Java Banten Syariah, Bank Mega Syariah, Bank Panin Dubai Syariah, Bank Syariah Bukopin, Bank BCA Syariah, Bank Tabungan Pensiunan Nasional Syariah, Bank Aladin Syariah.(Syahrum & Salim, 2012)

Data Analysis Methods

The data analysis method used is multiple linear regression analysis. Multiple linear regression analysis is an analysis used to measure the magnitude of the influence of the independent variable (independent variable) on the dependent variable (dependent variable). Multiple linear regression consists of two or more independent variables and one dependent variable. The dependent variables used in this study are the financial sustainability ratio (FSR), and the independent variables used CAR, BOPO, and NCOM. In the multiple linear regression equation use the following formula:(Riyanto & Hatmawan, 2020)

$$\mathbf{Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e}$$

Information:

Y = Financial Sustainability Ratio (FSR)
a = Constanta
β = Multiple Liner Regression Coefficients
X_1 = Capital Adequacy Ratio (CAR)
X_2 = Operating Expenses and Operating Income (BOPO)
X_3 = Net Core Operating Margin (NCOM)
and = Residual Error (error)

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RESULTS AND DISCUSSION

Data analysis model using multiple linear regression model processed through SPSS program version 20 with the final results obtained from the research as follows:

Descriptive Analysis

Table 3 Descriptive Analysis Results

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
NCOM	50	-37.74	14.86	-.3332	8.24084
Valid N (listwise)	50				

Based on Table 3 descriptive analysis test results revealed that NCOM on 10 BUS starting from 2017-2021 can be described with a total of 50 data, obtained results mean -0,3332. The highest NCOM was obtained at 14.86 in 2019 at Bank BTPN Syariah. The minimum NCOM obtained was -37.74 in 2018 at Bank Aladin Syariah. This shows that the amount of NCOM in this study sample ranges from -37.74 to 14.86, and it can be seen that there are still Sharia Commercial Banks that show a low NCOM ratio level from the limit set by Bank Indonesia of 3% so the bank's profitability is low in anticipating potential losses. Variable standard deviation Net Core Operating Margin (NCOM) of 8.24084.

Normality Test

Table 4 Normality Test Results Using Kolmogorov-Smirnov Statistical Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		50
Normal Parameters[a,b]	Mean	0E-7
	Std. Deviation	16.81274828
Most Extreme Differences	Absolute	.142
	Positive	.066
	Negative	-.142
Kolmogorov-Smirnov Z		1.005
Asymp. Sig. (2-tailed)		.265

a. Test distribution is Normal.

b. Calculated from data.

Based on the normality testing table using the One-Sample Kolmogorov Smirnov Test revealed that the Asymp. Sig. (2-tailed) value was 0.265. Which is the value of Asymp. Sig 0.265 > 0.05. Therefore, it can be concluded that the research data used in this study is normally distributed.

Autocoorelasse Water

Table 5 Autocorrelation Test Results with Durbin Watson

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.795a	.632	.608	17.35233	2.108

a. Predictors: (Constant), NCOM, CAR, BOPO

b. Dependent Variable: FSR

The autocorrelation test table above reveals that Durbin Watson's value is 2.108. So it can be concluded that the DW value lies between dU and (4-dU) or dU < DW < 4-dU. So, the value obtained is 1.6739 < 2.108 < 2.3261. Therefore, it can be concluded that this study did not show symptoms of autocorrelation.

Uji Multikolinearitas

Table 6 Multicollinearity Test Results

Coefficients

Model		Collinearity Statistics	
		Tolerance	BRIGHT
1	CAR	.744	1.344
	BOPO	.563	1.775
	NCOM	.720	1.390

a. Dependent Variable: FSR

In the multicollinearity test table above, it can be seen that the three independent variables namely CAR, BOPO, and NCOM show a VIF (Variance Inflation Factor) number of less than 10 and a tolerance value of more than 0.10. This is shown by variables Therefore, it was concluded that the regression model in this study was not exposed to the problem of multicollinearity.

Heteroscedasticity Test

Table 7 Heteroscedasticity Test Results

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Say.
		B	Std. Error	Beta		
1	(Constant)	11.854	3.532		3.356	.002
	CAR	.009	.023	.068	.399	.692
	BOPO	.009	.035	.052	.267	.791
	NCOM	.089	.215	.072	.415	.680

a. Dependent Variable: ABRESID

Based on table 7 above, reveals that the results of heteroscedasticity testing with the Glejser test show a Sig value of > 0.05, namely in the CAR variable (X1) of 0.692 > 0.05. In the BOPO variable (X2) of 0.791

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> 0.05. In the NCOM variable (X3) of 0.680 > 0.05. From these results, it can be concluded that this study is free of symptoms of heteroscedasticity and deserves to be studied.

T Test (Partial Test)

Table 8 T Test Results (Partial Test)

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Say.
		B	Std. Error	Beta		
1	(Constant)	137.093	5.838		23.484	.000
	CAR	.042	.038	.113	1.087	.283
	BOPO	-.326	.057	-.678	-5.687	.000
	NCOM	.862	.355	.256	2.432	.019

a. Dependent Variable: FSR

In Table 8 the test results of the t-test can be drawn, namely:

1) Test hypothesis 1 on the Capital Adequacy Ratio (CAR) variable
The calculated value of CAR (X1) < table is 1.087 < 1.67866 and the Sig value of the variable CAR (X1) > 0.05 is 0.283 > 0.05. So it can be concluded that Ha1 is rejected and H01 is accepted, meaning that CAR (X1) has a positive and insignificant effect on the Financial Sustainability Ratio (FSR).
2) Test hypothesis 2 on the variables Operating Cost and Operating Income (BOPO) obtained the calculated value of BOPO (X2) > table, which is 5.687 > 1.67866, and the Sig value of the variable BOPO (X2) < 0.05, which is 0.000 < 0.05. So it is concluded that Ha2 is accepted and H02 is rejected. This means that BOPO (X2) has an effect and is significant on the Financial Sustainability Ratio (FSR). A negative t value indicates that BOPO has the opposite relationship with FSR.
3) Test hypothesis 3 on Net Core Operating Margin (NCOM) variables
The calculated value of NCOM (X3) < table is 2.432 > 1.67866 and the Sig value of the NCOM variable (X3) < 0.05 is 0.019 < 0.05. So it is concluded that Ha3 is accepted and H03 is rejected, meaning that NCOM (X3) has a positive and significant effect on the Financial Sustainability Ratio (FSR).

Test F (Test Simultaneously)

Table 9 F Test Results (Simultaneous Test)

ANOVA

Model		Sum of Squares	df	Mean Square	F	Say.
1	Regression	23779.897	3	7926.632	26.325	.000b
	Residual	13850.757	46	301.103		
	Total	37630.654	49			

a. Dependent Variable: FSR

b. Predictors: (Constant), NCOM, CAR, BOPO

In the table above, the test results from the F test are Fcalculate > Ftable values are 26.325 > 2.81 and Sig < 0.05 values, which are 0.000 < 0.05. So it can be concluded that in the F test Ha4 is accepted and H04 is rejected. This means that together CAR (X1), BOPO (X2), and NCOM (X3) have a significant effect on the Financial Sustainability Ratio (FSR). This happens because the three variables are interrelated and have a relationship, where if all independent variables are combined it will simultaneously affect the FSR.

Test Coefficient of Determination (R2)

Table 10.Test Results of Coefficient of Determination (R2)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.795a	.632	.608	17.35233	2.108

a. Predictors: (Constant), NCOM, CAR, BOPO

b. Dependent Variable: FSR

The test table of the coefficient of determination above shows that the value of Adjusted R Square is 0.608 or 60.8%. This means that the adjusted coefficient of determination in the Adjusted R Square value is 0.608 or 60.8%. This means that as many as 60.8% of the Financial Sustainability Ratio (FSR) variables can be explained by CAR, BOPO, and NCOM variables, while 39.2% are explained by other variables that were not studied in this study.

CONCLUSION

Based on the results of the description and analysis that have been carried out in this study, the following conclusions were obtained:

1. CAR has a positive and insignificant effect on the Financial Sustainability Ratio of Sharia Commercial Banks for the 2017-2021 period.
2. BOPO has a negative and significant effect on the Financial Sustainability Ratio of Sharia Commercial Banks for the 2017-2021 period.
3. NCOM has a positive and significant effect on the Financial Sustainability Ratio of Sharia Commercial Banks for the 2017-2021 period.
4. CAR, BOPO, and NCOM simultaneously have a significant effect on the Financial Sustainability Ratio of Sharia Commercial Banks for the 2017-2021 period.

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