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The Effect of Capital Adequacy Ratio (CAR) and Liquidity on Profitability of Islamic Commercial Banks in Indonesia for the 2016-2020 Period

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Abstrak

This study aims to determine how the Effect of Capital Adequacy Ratio (CAR) and Liquidity on the Profitability of Islamic Commercial Banks in Indonesia for the 2016-2020 period. The results of data processing using the SPSS 17 For Windows program resulted in multiple regression analysis with two independent variables and one dependent variable showing that Y = 2.108 + 1.380CAR + 0.158CR, meaning that profitability is influenced by the Capital Adequacy Ratio (CAR) and Liquidity. Furthermore, the results show that the Capital Adequacy Ratio (CAR) and Liquidity variables can explain the Profitability variable 41%, the remaining 58% is explained by other variables. The results of the hypothesis test state that: Hypothesis 1 is accepted, this can be seen from the value of tcount > ttable, therefore the Capital Adequacy Ratio (CAR) has an effect on profitability. The second hypothesis is rejected, it can be seen from the value of tcount < ttable, it is stated partially that Liquidity has no effect on Profitability. Hypothesis 3 is accepted, it can be seen from the value of Fcount > Ftable, it is stated simultaneously that Capital Adequacy Ratio (CAR) and Liquidity have an effect on Profitability.

Keywords: *Capital Adequacy Ratio (CAR)* dan Likuiditas, Profitabilitas

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1. INTRODUCTION

Indonesia is one of the countries with the largest Muslim majority population in the world, indirectly this shows a huge potential for sharia sector economic activities in Indonesia. Public awareness of Islamic law will determine the amount of growth of Islamic economic activity in Indonesia. The Islamic banking sector is the sector that is most positively affected by the increasing public awareness of Islamic law, this is because every community activity is currently not separated from banking, either as a place to store funds that have been obtained or to obtain funds as capital to run a business. In general, banks have the function of collecting and distributing public funds, so banks are also referred to as agents of public trust.

The presence of Islamic banking was initially triggered by the desire of Muslims for financial services based on sharia principles which were expected to avoid the practice of usury, maysir, gharar and other practices that were considered incompatible with Islamic principles. According to Adiwarman (2010) in 1992 the first Islamic banking industry in Indonesia was established, namely Bank Muamalat Indonesia (BMI). Although the development is late when compared to other Muslim countries, in 1992-1998 there was only one Sharia Bank unit, in 2005 the number of Sharia Banks in Indonesia had increased to 20 units, namely 3 Sharia Commercial Banks and 17 Sharia Business Units. In the last few years, Indonesia has experienced very rapid growth in Islamic finance. By the end of 2019, there were 14 sharia commercial banks, 20 sharia business units and 164 sharia people's financing banks with total assets of Rp. 538.32 trillion, while the third party funds that can be collected is Rp. 425.29 trillion and distributed Rp. 365.13 trillion. It was recorded that on October 17, 2019 Indonesia managed to rank first in the Islamic finance market in

the Islamic Finance Country Index (IFCI) 2019 from 48 countries.

The survival of a company can be influenced by various things, including the Capital adequacy ratio (CAR) which greatly affects the profitability and liquidity of the company. In terms of increasing company profits, a company manager, especially a financial manager, must know what factors have great potential for company profitability which can be seen from sales results and investment income. According to Kasmir (2011) states that the profitability ratio is a ratio to assess the company's ability to seek profit in providing a measure of the level of effectiveness of the company's management, this is indicated by the profits earned and investment income. Profitability can be proportioned to Return On Assets (ROA), according to Prihadi (2015), Return On Assets (ROA) is used to measure the level of profit on the assets used to generate these profits.

The overall main financial ratios used to measure a bank's ability to meet its long-term obligations or a bank's ability to meet obligations in the event of bank liquidation greatly affect the condition of a bank when the operational system is in progress, including the Capital Adequacy Ratio (CAR). According to Dendawijaya (2012) Capital Adequacy Ratio (CAR) is a ratio that shows how far all bank assets that contain risks (credit, investments, securities, claims on other banks) are also financed from the bank's own capital funds in addition to obtaining funds. -funds from sources outside the bank, such as public funds, loans (debt), and others.

Profitability values play a very important role in the company as a mirror of the future whether the company has good prospects and value in the future as seen in terms of settlement of obligations such as short-term obligations which also have an influence on the company's liquidity, as well as the value of Capital Adequacy Ratio (CAR) which is able to show the financial condition before the occurrence of liquidity in a company. According to Munawir in Satriana (2017) liquidity shows the company's ability to meet financial obligations that must be fulfilled immediately or the company's ability to meet financial obligations when billed. To see the level of liquidity of a company can be seen in the current ratio (Current Ratio) owned by the company. The current ratio is a ratio that measures the company's ability to pay short-term obligations or debts that are due immediately when they want to be billed in full.

Then in previous research there are differences in the results of research conducted by Syifa Mutiaulfah (2018) entitled The Effect of Current Ratio (CR) and Capital Adequacy Ratio (CAR) on Return.

2. METHOD

In this study the authors used quantitative data. According to Sugiyono (2013) quantitative can be interpreted as a research method based on the philosophy of positivism, used to examine certain populations or samples, data collection using research instruments, data analysis is quantitative/statistical, with the aim of testing the established hypothesis. According to Sugiyono (2015) population is a generalization area consisting of: objects/subjects that have certain quantities and characteristics determined by researchers to be studied and then drawn conclusions.

In this study, the population used were Islamic commercial bank companies registered with the Financial Services Authority as many as 14 companies. The sample in this study is the financial report issued by each Islamic Commercial Bank Company in 2016-2020. According to Suharsimi Arikunto (2010) The sample is part or representative of the population being studied. The sample in this study is the financial report issued by each Sharia Commercial Bank Company in 2016-2020.The sampling technique is using purposive sampling, where the sample is taken through certain considerations whose criteria are determined by the researcher himself. The criteria set by the researchers are:

a. Islamic banking company registered with the Financial Services Authority in 2016-2020.
b. Islamic banking company that publishes complete financial statements in 2016-2020.
c. A banking company that consistently generates profits in 2016-2020.

Based on these criteria, the number of samples in the study were 8 companies, with a research year of 5 years starting from 2016-2020. The following is a list of Food and Beverage companies according to the research criteria listed on the Indonesia Stock Exchange.

Tabel 1.
Company Sample

No	Company name
1	PT. Bank BCA Syariah
2	PT. Bank BNI Syariah
3	PT. Bank Tabungan Pensiun Nasional Syariah
4	PT. Bank Maybank Syariah Indonesia
5	PT. Bank Muamalat Indonesia
6	PT. Bank Pain Dubai Syariah
7	PT. Bank Syariah Mandiri
8	PT. Bank Victoria Syariah

Source *:* www.sahamok.com (2021)

The type of data used in this study is secondary data with data sources obtained from the company's financial statements for the 2016-2019 period sourced from the www.sahamok.com site. Broadly speaking, in this study there are independent variables and dependent variables. Based on the definition that has been set by the researcher seen in the table below.

Tabel 2.
Operational Definition of Research Variables

Variabel	Definition	Formula	Measurement Scale
***Return On Asset*(Y)**	According to Henry (2015) the return on assets is a ratio that shows how big the contribution of assets is in creating net income.	ROA=$\frac{Laba\ bersih}{Total\ Asset}$ Menurut Brigham dan Houston dalam Satriana (2017:15)	Ratio
***Current Ratio*(X1)**	Kasmir (2011) The current ratio is a ratio that measures the company's ability to pay short-term obligations or debts that are due immediately when they want to be billed in full.	Current Ratio =$\frac{Total\ Aktiva}{total\ Kewajiban}$ Kasmir (2011:134)	Ratio
***Capital Adequacy Ratio* (X2)**	According to Mia Lasmi (2013) Capital Adequacy Ratio (CAR) is the ratio of the bank's capital adequacy or the bank's ability in existing capital to cover possible losses in credit or securities trading.	*Capital Adequacy Ratio* = $\frac{\text{Modal Bank}}{\text{Aktiva Tertimbang Menurut Resiko}}\ x\ 100\%$ Mia Lasmi (2013:295)	Ratio

Source: Processed data (2021)

The data analysis technique used in this study is the classical assumption test, which includes the data normality test, multicollinearity test, heteroscedasticity test and autocorrelation test. The multiple linear regression equation used in this study can be formulated as follows:

$$Y_1 = a + b_1X_1 + b_2X_2 + \varepsilon$$

Keterangan :

Y : Profitabilitas
a : Constants of the regression equation
b_1 : Regression coefficient of variable X1 (Liquidity)
b_2 : Regression coefficient of variable X2 (Capital Adequacy Ratio)
X_1 : Likuiditas
X_2 : *Capital Adequacy Ratio*
ε : Error rate

Furthermore, a partial test and simultaneous test will be carried out.

3. RESULTS

Normality test

The test results using SPSS 17 are as follows::

Tabel 3.
Uji *One Sample Kolmogorov Smirnov Test*
One-Sample Kolmogorov-Smirnov Test

			Unstandardized Residual
N			40
Normal Parameters[a,,b]	Mean		.0000000
	Std. Deviation		.22566614
Most Extreme Differences	Absolute		.089
	Positive		.054
	Negative		-.089
Kolmogorov-Smirnov Z			.563
Asymp. Sig. (2-tailed)			.909
Monte Carlo Sig. (2-tailed)	Sig.		.875[c]
	99% Confidence Interval	Lower Bound	.740
		Upper Bound	1.000

a. Test distribution is Normal.
b. Calculated from data.
c. Based on 40 sampled tables with starting seed 2000000.
Source: Processed data (2021)

From the output in table 3, it can be seen that the significance value (Monte Carlo Sig.) of all variables is 0.875. If the significance is more than 0.05, then the residual value is normal, so it can be concluded that all variables are normally distributed.

Multicollinearity Test

The calculation of the tolerance value or VIF with the SPSS 17.00 program for windows can be seen in Table 4 below:

Tabel 4.
Multicollinearity Test Results
Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	CAR	.609	1.643
	CR	.609	1.643

a. Dependent Variable: ROA

Source: Processed data (2021)

Based on table 4, it can be seen that the tolerance value of the Capital Adequacy Ratio (X1) variable is 0.609, Current Ratio (X2) variable is 0.609, all of which are greater than 0.10 while the VIF value of the Capital Adequacy Ratio (X1) variable is 1.643 Current variable. Ratio (X2) is 1.643, all of which are smaller than 10. Based on the results of the above calculations, it can be seen that the tolerance value of all independent variables is greater than 0.10 and the VIF value of all independent variables is also smaller than 10 so that there is no correlation symptom in independent variable. So it can be concluded that there is no symptom of multicollinearity between independent variables in the regression model.

Heteroscedasticity Test

The results of data processing using SPSS 17.00 show the results in the following table :

Tabel 5.
Glejser Test Results
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.290	.079		3.679	.001
	CAR	-.012	.017	-.148	-.726	.472
	CR	-.074	.046	-.331	-1.631	.111

a. Dependent Variable: abs_res1
Source: Processed data (2021)

Based on table 5, the Sig Capital Adequacy Ratio is 0.193 and the Current Ratio is 0.802, both of which are greater than 0.050 so it can be concluded that there are no symptoms of heteroscedasticity in this model.

Autocorrelation Test

The test results using SPSS 17.00 in are shown as follows:

Tabel 6.
Autocorrelation Test
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.627[a]	.393	.360	.455322	.393	49.482	2	37	.000	1.806

a. Predictors: (Constant), CR, CAR
b. Dependent Variable: ROA
Source: Processed data (2021)

From table 6, it can be seen that the Durbin Watson value is 1.806 while the Durbin Watson table value with n: 40 and k: 3 is 1.658. Because the Durbin Watson score is between 1.658 and 4-1.658 (2.342), it can be concluded that there is no autocorrelation symptom.

Multiple Linear Regression Analysis

Based on these results, the multiple linear regression equation has the formulation: Y = a + b1X1 + b2X2 + , so that the equation is obtained: Y = 2.108 + 1.380CAR + 0.158CR

Coefficient of Determination

The value used to see the coefficient of determination in this study is in the adjusted R square column. This is because the adjusted R square value is not susceptible to the addition of independent variables. The value of the coefficient of determination can be seen in Table 7 below:

Tabel 7.
Coefficient of Determination
Model Summary[b]

Model	R	R Square	Adjusted R Square
1	.727[a]	.453	.420

a. Predictors: (Constant), CR, CAR
b. Dependent Variable: ROA
Source: Processed data (2021)

Based on table 7, it can be seen that the adjusted R square value is 0.420 or 42%. This shows that the Capital Adequacy Ratio (X1) and Current Ratio (X2) variables can explain the Return On Asset (Y) variable by 42%, the remaining 58% (100% - 42%. %) is explained by other variables outside the model. this research such as LDR (Loan to Deposit Ratio), NPL (Noan Performing Loan) and others.

t test (Partial)

The t statistic test is also known as the individual significance test. This test shows how far the influence of the independent variable partially on the dependent variable. In this study, partial hypothesis testing was carried out on each independent variable as shown in Table 8 below:

Tabel 8.
Partial Test (t)
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.108	.890		1.245	.221
	CAR	1.404	.188	.820	7.460	.000
	CR	-.240	.516	-.051	-.466	.644

a. Dependent Variable: ROA
Source: Processed data (2021)

From table 8, the tcount value is 7.460. With = 5%, ttable (5%; nk = 38) the ttable value is 2.024. From the description it can be seen that tcount (7.460) > ttable (2.024), as well as the significance value of 0.000 <0.05, it can be concluded that the first hypothesis is accepted, meaning that the Capital Adequacy Ratio (X1) variable affects the Return On Assets (Y) variable.

From table 8, the tcount value is -0.466. With = 5%, ttable (5%; nk = 38) the ttable value is 2.024. From the description it can be seen that tcount (-0.466) < ttable (2.024), and the significance value is 0.644 > 0.05, it can be concluded that the second hypothesis is rejected, meaning that the Current Ratio (X2) variable has no effect on the Return On Asset (Y) variable.

F Test (Simultaneous)

This test basically shows whether all the independent variables included in this model have a joint effect on the dependent variable. The results of the F test can be seen in table 9 below:

Tabel 9.
Simultaneous Test Results (F)
ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	202.088	2	101.044	49.482	.000[a]
	Residual	75.555	37	2.042		
	Total	277.644	39			

a. Predictors: (Constant), CR, CAR
b. Dependent Variable: ROA
Source: Processed data (2021)

From table 9, the Fcount value is 49.482. With = 5%, dk numerator: 2, dk denominator: nk-1 (5%; 2:37) Ftable value is 3.25. From this description it can be seen that Fcount (49.482) > Ftable (3.25), and a significance value of 0.000 <0.05, it can be concluded that the third hypothesis is accepted, meaning that the Capital Adequacy Ratio (X1) variable and the Current Ratio (X2) variable have a simultaneous (simultaneous) effect on the Return variable. On Assets (Y) .

4. CONCLUSION

This study aims to determine how the Effect of Capital Adequacy Ratio (CAR) and Liquidity on the Profitability of Islamic Commercial Banks in Indonesia for the 2016-2020 period. From the results of processing SPSS.17, it shows that the first hypothesis is accepted, meaning that the Capital Adequacy Ratio (CAR) has an effect on Profitability at Islamic Commercial Banks in Indonesia for the 2016-2020 period. This is because the capital owned by the company is greater from debt and the sale of shares compared to the company's own capital, so that it reduces the profit or profitability of the company.

From the results of processing SPSS.17, it shows that the second hypothesis is accepted, meaning that liquidity has an effect on profitability (ROA) at Islamic commercial banks in Indonesia for the 2016-2020 period. The higher the liquidity owned by the company, the greater the company's current assets, where the current assets come from debt and share sales, so that it has an impact on decreasing profits or company profitability. From the results of processing SPSS.17, it shows that the third hypothesis is rejected,

meaning that Capital Adequacy Ratio (CAR) and Liquidity have a simultaneous effect on Profitability (ROA) in Islamic Commercial Banks in Indonesia for the 2016-2020 period.

5. SUGGESTION

In managing the funds owned by the company to be given as loans or debts to customers or other third parties, companies are encouraged to be really selective in providing funds so as to minimize the possibility of credit arrears or bad loans and can maintain the company's liquidity level.

Companies must be able to prioritize the management of their own capital compared to debt or loans obtained from investors or third parties so as to increase investor confidence if at any time they need funds to expand.

The results of testing the second hypothesis show that the Current Ratio has no significant effect on Return On Assets but has a negative relationship. So it is recommended to related companies not to play it safe by investing too much in current assets so as to reduce investment in fixed assets, the impact of which can reduce the company's ability to generate profits.

6. REFERENCE

Adiwarman A. Karim, 2010. Analisis Fiqh dan Keuangan, Raja Grafindo Persada, Jakarta.

Dendawijaya, Lukman. 2012. Manajemen Perbankan. Cetakan Kedua. Ghalia Indonesia. Jakarta.

Didik Gunawan, Saparuddin Siregar, Isnaini Harahap. (2019) melakukan penelitian dengan judul *The Effect Of Car, Nom, Profit- Loss Sharing Financing And Liquidity On Profitab*ility *In Islamic Commercial Banks And Islamic Business Units In Indonesia.* Procceding International Seminar on Islamic Studies Volume 1, Nomor 1, Tahun 2019

Henry. 2015. Analisis Laporan Keuangan. Edisi 2. *Center For Academic Publishing Service,* Yogyakarta.

Kasmir, 2011, "Analisis Laporan Keuangan",Cetakan ketiga. Raja Grafindo Persada. Jakarta.

Mia Lasmi Wardiah. 2013. Dasar-dasar Perbankan. Pustaka Setia. Bandung.

Prihadi, T. 2015. Analisis Laporan Keuangan Teori dan Aplikasi. PPM. Edisi Ketujuh. Yogyakarta: UPP STIM YKPN. Jakarta.

Syifa Mutiaulfah. 2018. Pengaruh *Current Ratio* (CR) Dan *Capital Adequacy Ratio* (CAR) Terhadap *Return On Assets* (ROA) Pada Bank Bni Syariah Tbk Periode 2014-2016. Skripsi, Universitas Islam Negeri Sunan Gunung Djati. Bandung

Santiriana. 2017. *Panduan Cerdas Berinvestasi*. PT Elex Media Kopotindo, Jakarta.

Susilo. 2010. Manajemen Keuangan Edisi 8. Erlangga. Jakarta.

Suharsimi Arikunto. 2010. *Prosedur Penelitian Suatu Pendekatan Praktis*. PT. Rineka Cipta. Jakarta.

Sugiyono. 2013. Metode Penelitian Kuantitatif Kualitatif dan R&D. Alfabeta, Bandung.

Sugiyono. 2015. Metode Penelitian Kuantitatif Kualitatif R&B. Aflabeta, Bandung.

Undang-Undang No. 21 Tahun 2008, Tentang Perbankan Syariah, Pasal 1 butir 23. Pasal 1 ayat 13.

Undang-Undang No. 10 Tahun1998 tentang perubahan Undang Undang No. 7 Tahun 1992 tentang Perbankan.