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Financial ratio on market capitalization with eps as a moderating variable

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ABSTRACT

This study investigates the effect of financial ratios on market capitalization. This study aims to determine the effect of the Capital Adequacy ratio, Return On Equity, and Non-Performing Loan on market capitalization with EPS as a moderating variable. Study on banking companies listed on the Indonesia Stock Exchange in 2018-2022. This study uses descriptive analysis and multiple regression methods for data analysis. Sampling in this study used a purposive sampling technique with a total of 39 banks. The results of the study answer the main hypothesis that EPS moderates the effect of CAR, ROE, and NPL on market capitalization. The CAR variable has a significant positive effect on market capitalization, while the ROE and NPL variables do not affect market capitalization.

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1. INTRODUCTION

Market capitalization has been increasing rapidly. This is due to the trend of technology companies that make the technology sector stock market issuers increase on international exchanges. In the United States, Apple has the largest capitalization level with a value of US$ 2.8 trillion (Cindy, 2023). Unlike Indonesia, the largest market capitalization is not from technology sector companies but comes from the banking sector. Bank Central Asia Tbk (BBCA) has occupied the first level of market capitalization in Indonesia in the last ten years. Even at the end of 2022, BBCA's market capitalization value was recorded at Rp. 1,043.46T. BBCA's achievements increase every year and make BBCA the only issuer with a market capitalization value of more than Rp. 1000T. Thus making BBCA an issuer that is included in the bluechip company cluster which can fundamentally provide large profits.

The increasing competition in market capitalization shows that the banking sector has transformed the capital market into a space that attracts investors for financing. The more capital funds a bank has, the greater its influence on the company's operations (Gianfrate & Gouigoux, 2015).Where market capitalization is a price that symbolizes the market value of the amount of shares issued by the company (Indraswari & Mimba, 2017). A company with high capitalization usually has a relatively high market value where market value can be used as a measure of company efficiency (Niawaradila et al., 2021). A high market capitalization value will attract more investors to invest. This is because high market capitalization indicates that the company's share price is high, a

high share price reflects good financial performance (Awaluzi & Maharani, 2022). This is taken into consideration by investors as a signal of future prospects in determining the risk of investment decisions in the company (Kumar & Kumara, 2020) and (Pavone, 2019) . According to Robert Ang in (Siyamto & Pravasanti, 2019) and (Widiatmoko et al., 2020) market capitalization is the result of multiplying the share price by the number of shares outstanding. The market value of a bank is closely related to the level of profitability of the company. Banks with high profitability tend to have high market capitalization, and conversely banks with low profitability tend to have low market capitalization. Thus, there is a positive relationship between profitability and firm market value, the results of which consistently confirm research findings (Sharma, 2018); (Rawlin et al., 2019) and (Budi Artha et al., 2023) that profitability has a positive impact on market capitalization.

This is in line with signaling theory which states that investors consider information on a company's financial performance related to profitability, solvency, liquidity and the company's ability to manage its assets. Signaling theory by (Michael Spence, 1973) argues that good companies can distinguish themselves from bad companies by signaling the quality of the capital market. Reliable signals only occur when disadvantaged firms fail to provide informative signals to investors. Signaling theory is used in company management to provide information to outside parties who have an interest in the company to find out how the company's financial performance conditions (SRI WAHYUDI et al., 2020). Financial ratio analysis is an effective and fast way to describe the condition of banking financial performance. One of the objectives of financial ratio analysis is to identify the relationship between changes in financial trends and company performance (Shaker Sultan, 2014). There are several parties who have an interest in financial ratios, one of which is investors. There are several classifications of financial ratios to determine how the company is performing. Profitability is used to measure the company's ability to generate profits. Liquidity is the company's ability to pay short-term debt. Solvency is the company's ability to pay its long and short-term debt.

Profitability is a measure that reflects the ability of a company to make a profit with the capital invested or participation in the company's operations. As a measure of profitability Return On Equity / ROE is used to compare profit after tax with equity or own capital (Roosmawarni & Mauliddah, 2021).This ratio is used as an illustration of the company's effectiveness in management which is shown by the profit obtained from sales or investment income. Income affects the profitability of the bank, where the increasing share price causes the market capitalization to automatically increase. The higher ROE means that the bank actually earns income and growth from equity financing (Sultan, 2021). ROE as a profitability ratio describes the issuer's ability to generate profits, if ROE increases, the market value also increases and vice versa, namely. ROE and market value have a unidirectional relationship (Zhou & Shon, 2012). Previous research found that ROE has a significant effect on market capitalization (Al-Nimer, 2015); (Almumani, 2018) ; (Putri et al., 2020). This is in line with the results of research (Roosmawarni & Mauliddah, 2021) which found that ROE has a significant effect on market capitalization. In subsequent research (Roosmawarni et al., 2023) found insignificant results between ROE and market capitalization.

Capital is one of the important assessment factors for business development and bank risk management, which functions as a source of operational financing (Wayan et al., 2023). Capital Adequacy Ratio/CAR is one of the ratio indicators to assess capital set by regulatory agencies such as banks to evaluate capital adequacy and other performance. Based on Bank Indonesia (BI) regulations, the minimum value of CAR that banks must have is 8%. The higher the CAR value, the higher the bank's protection and the more attractive it is to investors. This causes the movement of stock prices to rise and market capitalization. The results of research (Roosmawarni et al., 2023) found that CAR

is the dominant variable that has a positive effect on market capitalization. These findings are not in line with the findings (Wulandari et al., 2022) which found that there was no effect of the CAR variable on the market capitalization of conventional banks listed on the IDX in 2017-2020.

In addition, the internal health of the bank is certainly an important consideration for investors in deciding on investments. The internal condition of the bank reflects the condition of the bank's assets. This can be seen from the Non Performing Loan / NPL which is a ratio to measure non-performing loans compared to total loans. NPL is used to reflect credit risk, because the bank's main source of income is interest income from loans with a high risk of default, especially if the bank uses external financial resources to provide loans. The standard set by Bank Indonesia as the banking supervisory authority is a maximum of 5% to maintain the stability and health of the bank.This is a signal for investors to invest in the company. Investors tend to choose companies with good internal conditions, the less interest investors invest in the company, the share price will decrease and affect the company's stock market capitalization value. Research results (Yurttadur et al., 2019) and (Wulandari et al., 2022). However, this result is not in line with the results of research (Roosmawarni & Mauliddah, 2021) and (Roosmawarni et al., 2023) which found that there is no effect of NPL on market capitalization.

The results of previous studies show that there are differences in the final results of each previous study. This is of interest to researchers to conduct research again with different variables, data and methods. This difference is the reason for the author to test new variables that can strengthen or weaken (moderate) financial ratios on market capitalization. EPS is used as a moderating variable for the effect of financial ratios on market capitalization. This is based on signaling theory, where financial ratios are signaling to investors how the company is doing. This ratio can signal to investors and potential investors about the profitability of each share. Earning per share is one of the market ratios that investors often use as a consideration in making investment decisions. This ratio measures how the company distributes benefits or profits to ordinary shareholders (Jasman & Kasran, 2017). The EPS ratio is used as an illustration of the amount of return on capital for each share.

2. RESEARCH METHODS

The research method used in this research is the descriptive method. Classical assumption tests include normality, multicollinearity, and heteroskadacity tests. The data was analyzed using regression analysis to see the effect of independent variables and hypothesis testing. The population includes all banking companies listed on the Indonesia Stock Exchange (IDX) totaling 47 companies. The sampling technique used is purposive sampling, namely companies listed on the Indonesia Stock Exchange (IDX) that publish financial reports from 2018-2022 and have complete financial statement data. Only 39 companies that fulfill. The research is a time series data survey of bank annual reports for 5 years, from 2018 to 2022.

Based on the method used, the researcher wants to get answers to the hypotheses made, namely: H1 : Capital Adequacy Ratio has a positive effect on market capitalization. H2 : Return On Equity has a positive effect on market capitalization. H3 : Non Performing Loan have no positive effect on market capitalization. $H4_a$: Earning per share moderates the influence of Capital Adequacy Ratio on market capitalization. $H4_b$: Earning per share moderates the influence of Return On Equity on market capitalization. $H4_c$: Earning per share moderates the influence of Non Performing Loan on market capitalization.

3. RESULT AND DISCUSSIONS

3.1 Deskriptive Analysis

Descriptipve statistics can provide a general description of the object that is research sample.

Table.1 Statistik deskriptif

	N	Minimum	Maximum	Mean	Std. Deviation
CAR	195	9,01	169,92	30,4066	21,23527
ROE	195	-95,44	54,71	4,2926	17,04508
NPL	195	0,00	9,92	1,7160	1,45493
EPS	195	-141,51	983,00	102,3599	173,19251
MC	195	17,66	34,25	27,4431	3,38016
Valid N (listwise)	195				

Based on table 1, it is known that the standard deviation value of market capitalization (MC) is 3,380 lower than the average value of 27,44. The bank with the maximum capitalization value is Bank Central Asia (BCA) with a capitalization value that continues to increase every year, this shows the bank's good financial condition. While CAR has a standard deviation of 21,23527 this value is smaller than the average value of 30,4066. This shows that the banks that are the research sample have adequate capital to reduce the risk of capital losses. ROE with a standard deviation value higher than the average. This is because investors are more inclined to invest in large banks with large dividends. This causes intense competition for small banks. NPL has a minimum value of 0,00 indicating that the bank's performance is good due to non-performing loans. EPS with a standard deviation smaller than the average this indicates that the variable data does not vary.The results of the descriptive analysis data in table 1 show that the standard deviation value on the Capital Adequacy Ratio, Non-Performing Loans, Earnings Per Share, and Market Cup variables is lower than the average. This shows that the variable data does not vary. The Return on Equity variable has a standard deviation that is higher than the average, which indicates that the variable data varies.

3.2 Classical Assumption Test

Table 2. Kolmogorov Smirnov

Keterangan	Unstandardized Residual	Alpha
N	195	
Asymp. Sig.	0,082	0,05

The normality test results show that the Asymp. Sig. (2-tailed) of 0.082>0.05, it can be concluded that the data is normally distributed.

Table 3. multikolonieritas

Variabel	Tolerance	VIF	Keterangan
Capital Adequacy Ratio	0,844	1,184	Free of multicollinearity
Return on equity	0,895	1,117	Free of multicollinearity
Non performing loan	0,781	1,281	Free of multicollinearity
Earning per share	0,911	1,098	Free of multicollinearity

The multicollinearity test aims to test the correlation of independent variables. If the independent variables do not correlate, the regression model is declared good. If the VIF value < 10 and the Tolerance value> 0.1, it can be stated that there are no multicollinearity symptoms. The test results in the table show that each variable has a Tolerance value of more than one and a VIF value of less than 10. It can be concluded that the regression model is free from multicollinearity symptoms.

Table 4. heteroskadasitisas (glejser-test)

Model	T	Sig.
(Constant)	9,425	0,00
CAR	-0,775	0,439
ROE	0,042	0,967
NPL	-0,751	0,453
EPS	-0,576	0,571

The Glejser test is used to determine whether variables have symptoms of heteroscedasticity. If the significance value> 0.05 then the data does not occur heteroscedasticity. From the data that has been tested, the significance value of ROE, NPL, EPS, and CAR is greater than 0.05. So it can be concluded that there are no symptoms of heteroscedasticity in the regression model.

3.3 Multiple Regression Analysis

Table 5. Regression Analysis

Model		Unstandardized Coefficients		T	Sig.
		B	Std. Error		
1	(Constant)	29,244	0,644	45,385	0,000
	CAR	-0,049	0,012	-4,155	0,000
	ROE	-0,021	0,015	-1,345	0,180
	NPL	-0,218	0,176	-1,236	0,218
	EPS	0,001	0,002	0,891	0,374

Based on the table above, the regression model obtained is : Market capitalization (MC) = 29,244-0,049(CAR)-0,021(ROE)-0,218(NPL)+0,001(EPS)

The value of α of 29,244 is a constant when capitalization has not been influenced by ROE, NPL, CAR, and EPS. CAR, ROE, and NPL variables have a negative influence on market capitalization where each addition of one value causes a decrease in the constant value. While EPS has a positive influence where the loyal addition of value causes the constant value to increase.

Table 7. Coefficient of Determination

Model	R	R Square	Adjusted R Square
1	0,307[2]	0,094	0,75

Dependent variable: MC

The results of the calculation of the coefficient of determination, resulting from the Adjusted R Square value of 0.75. From the results of these data tests, it can be concluded that the magnitude of the independent variables affects the regression equation model by 75%, the rest is influenced by other factors that are not included in the regression model.

Table 8. F Test

Model		F	Sig.
1	Regression	4,948	0,001[b]

From the table results, it is known that the F value is 4.948 and the significance level is 0.001 <0.005, it can be concluded that the independent variables CAR, ROE, and NPL affect the dependent variable, namely market capitalization (MC).

Tabel 9. T-Test

	Model 1		Model 2	
Variabel	t	Sig.	t	Sig.
(Constan)	45,385	0,000	50,345	0,000
CAR	-4,155	0,000	6,826	0,000
ROE	-1,345	0,180	-5,815	0,000

NPL	-1,236	0,218	0,294	0,769
CAREPS			-6,877	0,000
ROEEPS			5,822	0,000
NPLEPS			-331	0,741

Based on table 9 model 1 shows that the CAR t-statictic value is -4.155 with a significance value of 0.000<0.005, it can be concluded that the CAR variable has a negative effect on market capitalization. So it can be concluded that H1 is accepted. In the ROE variable with a t-statistic value of - 1.345 and a significance of 0.180, it can be concluded that there is no influence between the ROE variable on market capitalization, and hypothesis H2 is rejected. The NPL variable with a t-statistic value of - 1.236 and a significance of 0.218 can be concluded that there is no influence between the NPL variable on market capitalization and hypothesis H3 is accepted.

Based on the t-test results in model 2, the table shows that the significance value of CAR * EPS is 0.000 < 0.005 and the t-test value of -6.877 is smaller than the CAR t-test value of 6.826, it is concluded that EPS weakens the relationship between CAR and market capitalization and hypothesis $H4_a$ is accepted. The significance value of ROE * EPS is 0.000<0.005 and the t-test value of 5.822 is greater than the ROE t-test of -5.815, it is concluded that the EPS variable strengthens the relationship between the influence of ROE on market capitalization and hypothesis $H4_b$ is accepted. NPL * EPS with a significance of EPS of 0.000<0.005 and a t-test value of -0.331 is smaller than the CAR t-test value of 0.294, it is concluded that EPS weakens the relationship between NPL and market capitalization, and hypothesis $H4_c$ is accepted.

CAR is a ratio that provides signals to investors. This ratio tends to measure the ability of bank capital to overcome the risk of loss. The signal from this ratio is taken into consideration by investors in making investment decisions. The results of this study indicate that the T-test results are less than 0.005 with a t value of -4.155, it can be concluded that CAR has a significant effect in the negative direction. The higher the value of the CAR ratio, it will affect investors' decisions to use products or invest in banks and will increase the income of a bank.

ROE is a ratio that measures how much the company's ability to use capital to generate net income. ROE research results show a significance value greater than 0.005 or ROE does not affect market capitalization. This happens because ROE tends to only describe the amount of return on investment for ordinary shareholders, but does not describe the company's prospects so that investors do not make ROE an investment consideration.

NPL is a ratio that is inversely proportional to CAR where the greater the value of the NPL ratio signals a negative signal for investors. The negative signal given will affect investors' investment decisions. Lack of investor interest in investing can affect the company's share price which automatically affects the value of its market capitalization. The results of this study found that NPLs do not affect market capitalization. This is because the average bank has a high proportion of long-term lending.

EPS is one indicator that describes information on the distribution of net income to shareholders. The results showed that EPS can moderate the influence of CAR, ROE, and NPL variables on market capitalization. The EPS amount information listed in the financial statements provides signals to investors as a consideration in investing. EPS provides a picture of the company's earnings in the future, where the higher the EPS listed in the financial statements, it will provide a positive signal to investors.

4. CONCLUSION

This study aims to examine the effect of financial ratios on market capitalization. the ratios used are Capital Adequacy Ratio / CAR, Return On Equity / ROE, Non-Performing Loans / NPL, and Earning Per Share as moderating variables. Simultaneously CAR, ROE,

and NPL ratios affect market capitalization. The results of the research hypothesis are CAR has a significant positive effect on market capitalization while ROE and NPL variables do not affect market capitalization. The results of the analysis answer the main hypothesis, namely the EPS variable moderates the three independent variables CAR, ROE, and NPL on market capitalization.

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فـي الـمدرجة الـ صـناعـية الـ شركـات فـي الأربـ ـاح إدارة فـي الـربـ حـية أثـ ر .(2015) .ا .ع .ع ,الـذنـ يـ بـات & .,ع .ع .م ,جـ بـة أبـ و الـمالـي عـمان سـوق = The Effect of Profitability on Earnings Management in Industrial Companies Listed in Amman Stock Exchange. *Jordan Journal of Business Administration*, *13*(2), 259–280. https://doi.org/10.12816/0040705

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