

The Impact of Financial Ratios on Indonesian Telecommunication Stocks in 2019-2023

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ABSTRACT

This research examines the relationship between the financial ratios ROE, CR, and DER with the stock price in the Indonesian telecommunication industry. Using data from 2019 through 2023 for selected telecommunication companies listed on IDX, the study applies descriptive statistics and regression analysis to see the impact of these ratios on the movement of stock prices. The findings also show that ROE has a positive significant influence on stock prices, while the Debt-to-Equity Ratio negatively affects the prices of stocks. On the contrary, the Current Ratio does not significantly affect stock prices. In this regard, investors-especially from the middle class-should give more emphasis to profitability and leverage ratios as key elements in investment decisions in telecommunication stocks.



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INTRODUCTION

Currently, Indonesia is facing a crisis in which its middle class is decreasing. Specifically, the proportion of the middle class in 2024 is 47.85 million compared to that of 2019, which was 57.33 million ("Jumlah Kelas Menengah Indonesia Dinyatakan Turun, Apa Penyebabnya?", 2024). The major factor that causes this is the increase in costs. To rectify the issue, it is important that the middle class finds another source of income. Stock investment is a lucrative option compared to saving in banks if the stocks selected are appropriate.

Compared to other sectors, telecommunication companies are interesting because people become more connected with each other over time and hence, the prospect of the companies in this area is very good. In fact, during COVID-19, more people use data for WFH and online, forcing them to spend more on telecommunication sector. If utilized properly, this phenomenon could result in exponential profits that could increase the welfare of the middle class.

Among all the telecommunication companies, one of the tools that could be used to analyze which stock to buy is financial ratios. There are several research that show that some financial ratios impact the stock prices while some do not. Prastika et al (2023) argue that only ROA significantly impacts the stock price of telecommunication companies while the current ratio, debt ratio, and total assets turnover do not. On the other hand, Wulansari et al (2023) state that Current Ratio, ROE, ROA, and EPS significantly affect the stock price but DER does not. Dwijayani et al (2023) assert that the current ratio, return on equity, and return on assets significantly impact the stock prices of food and beverage companies. Meanwhile, the research of Zarefar & Armadani (2024) shows that solvency ratio, return on assets, and Tobin's Q affect stock prices positively but cash ratio has a negative impact.

Based on these varied findings, this research presents a new lens to approach the issue in which only the cheap telecommunication stocks plus the most promising ones according to the percentage of a price change would be selected because this would ensure that although the middle-class investment is small, they could reap maximum profits. These selected companies' financial ratios would be analyzed to provide insights to middle-class investors on what ratios to take into account to choose the stocks that would potentially rise.

LITERATURE REVIEW

Financial Ratios

In the world of finance, ratio analysis is a tool that is often used to monitor a company's financial condition. In general, ratio analysis includes methods of calculating and interpreting financial ratios to analyze and monitor company performance (Gitman & Zutter, 2012). There are several types of financial ratios, which are liquidity ratios, activity ratios, solvency ratios, profitability ratios, and market ratios. Liquidity ratios basically measure how liquid the company is. Activity ratios measure how fast several accounts are converted into cash (Gitman & Zutter, 2012). Solvency ratios are concerned with how leveraged a company is. Profitability ratios talk about how profitable a company is. Lastly, market ratios revolve around ratios that are related to the stock market.

Current Ratio

The current ratio could be obtained by dividing current assets by current liabilities (Prastika et al, 2023). If the value is greater than 1, it means the company is capable of paying its short-term obligations or liquid in general.

Return on Equity

Return on equity is the measure of the company's profitability with respect to the capital invested (Monica & Hasanuh, 2020). The higher it is, the more attractive a company is for the investors.

Debt to Equity Ratio

This ratio is a measure of how leveraged a company with regard to its equity. The lower it is, the better for the company because it means that the risk of default is low (Gitman & Zutter, 2012).

Stock Price

The stock price is the price of the stock when traded in the stock market. This value can fluctuate based on two major conditions, which are macroeconomic and microeconomic factors (Ardiana & Ulfah, 2022). Macroeconomic conditions are like government regulations, economic conditions, economic policy, and many more. Meanwhile, microeconomic conditions are the financial ratios of the company itself.

RESEARCH METHODS

The methodology will be organized in several major steps: data collection, sample selection, financial ratio analysis, statistical tests, and interpretation.

Research Design

The research design adopted for this study is quantitative, involving the collection of secondary data from the financial statements and stock market data of telecommunications companies listed in IDX over a certain period. The research is carried out in order to ascertain the relationship between the financial ratio with respect to fluctuations in the share prices of telecommunications companies.

Data Collection

Primary data sources are listed below:

Financial statements of the selected telecommunication companies, showing financial ratios of ROE, CR, DER. The data of stock prices in the same period is taken from IDX, Yahoo Finance, or company reports.

The data represents five years, 2019 to 2024, to cover the pre-pandemic and post-pandemic financial performance of the companies. Besides this, the stock price percentage changes for each company will be computed for the same period.

Sample Selection

The study shall be among the telecommunication companies listed in IDX. Steps in sample selection include:

Screening criteria: Companies selected should have complete financial reports and stock price data from 2019 to 2024.

Price-based selection: For this reason, and to assist middle-class investors who perhaps do not have much capital, only "cheap" stocks will be considered based on their stock price, especially those below a specified price threshold.

Promising stocks: The research will also involve discussion of the stocks with the highest percentage price changes during the selected period. Such stocks will provide insight into the companies that may yield the highest growth.

The key financial ratios to be analyzed will involve:

Return on Equity: This is the measure of profitability related to equity investment.

Current Ratio: Reflects the liquidity position of the company and its ability to meet or cover liabilities in the short term.

Debt-to-Equity Ratio: Expresses the proportion of debt used in financing the assets of the company.

Each of these ratios will be analyzed for its possible effect on the movement of the stock price.

Statistical Analysis

Financial ratios influencing stock prices will be analyzed by the following statistical methods:

Descriptive statistics: To summarize financial ratios and stock price data, outlining the characteristics of the data set.

Regression analysis: This tests what impact the financial ratios, as independent variables, collectively have on the change in the stock price as the dependent variable. This model will test the hypothesis as below:

H0: There is no significant relationship between the financial ratios and the stock prices.

H1: The financial ratios significantly contribute to the movement in stock prices.

In this regression model, financial ratios would be independent variables, while stock price changes would be dependent variables.

RESULTS

Among the 11 telecommunication companies in the Indonesian Stock Exchange, there are four that would be selected because their prices are not that high, the price changes were significant, and they had complete data from 2019-2023, which are PT Telkom Indonesia (Persero) Tbk (TLKM), PT XL Axiata Tbk (EXCL), PT Smartfren Telecom Tbk (FREN), and PT Jasnita Telekomindo (JAST).

The following is the descriptive statistics of the data.

Table 1 Descriptive Statistics
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROE	20	-25.65	20.35	1.3425	13.30136
CR	20	.24	1.38	.6205	.32712
DER	20	.14	1.91	.7040	.51235
Price	20	50.00	4040.00	1732.4500	1636.26473
Valid N (listwise)	20				

The average ROE is 1.343% with a standard deviation of 13.301%; its minimum value is -25.65% and the maximum value is 20.35%. For the Current Ratio, the average value is 0.621 with a standard deviation of 0.327 while the minimum value is 0.24 and the maximum one is 1.38. The

average DER is 0.704 with a standard deviation of 0.512 and its minimum value is 0.14 and the maximum one is 1.91. Lastly, for price, its minimum value is 50 and the maximum value is 4040 with an average and standard deviation of 1732.45 and 1636.265.

Before conducting the regression analysis, there are some tests that need to be carried out, which are normality, heteroscedasticity, multicollinearity, and autocorrelation tests. The following is the result of the normality test.

**Table 2 Normality Test
 One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual	
N		20	
Normal Parameters ^{a,b}	Mean	.0000000	
	Std. Deviation	719.5070895	
Most Extreme Differences	Absolute	.145	
	Positive	.121	
	Negative	-.145	
Test Statistic		.145	
Asymp. Sig. (2-tailed) ^c		.200 ^d	
Monte Carlo Sig. (2-tailed) ^e	Sig.	.318	
	99% Confidence Interval	Lower Bound	.306
		Upper Bound	.330

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.
- e. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

From the above, the p-value is 0.2, which is greater than 0.05, meaning that the residual is normally distributed (Dwiyanthi et al, 2021)

Next, the table below shows the results of heteroscedasticity test.

**Table 3 Heteroscedasticity Test
 Coefficients^a**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	676.626	312.515		2.165	.046
	ROE	-5.676	6.697	-.211	-.847	.409
	CR	36.449	314.391	.033	.116	.909
	DER	-117.643	205.905	-.169	-.571	.576

a. Dependent Variable: abs

Since all the p-values are greater than 0.05 (0.409, 0.909, and 0.576), it could be inferred that there is no heteroscedasticity phenomenon (Taufiq, 2022).

After that, the multicollinearity test was conducted.

Table 4 Multicollinearity Test
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3501.906	650.475		5.384	<.001		
	ROE	85.975	13.940	.699	6.168	<.001	.941	1.063
	CR	-1228.038	654.379	-.246	-1.877	.079	.706	1.416
	DER	-1595.001	428.575	-.499	-3.722	.002	.671	1.490

a. Dependent Variable: Price

The result suggests that there is no multicollinearity phenomenon because all the VIFs are less than 10 (Sapariyah & Chrisandana, 2019)

Lastly, the autocorrelation test was done to check whether the time series data were related. The result is as follows.

Table 5 Autocorrelation Test
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.898 ^a	.807	.770	784.06467	1.693

a. Predictors: (Constant), DER, ROE, CR

b. Dependent Variable: Price

The Durbin-Watson value is 1.693, which is greater than dU, 1.6763, but less than 4-DU. It means there is no autocorrelation issue (Firdaus et al, 2020).

The results of the regression analysis could be found below.

Table 6 F Test
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41033764.37	3	13677921.46	22.249	<.001 ^b
	Residual	9836118.585	16	614757.412		
	Total	50869882.95	19			

a. Dependent Variable: Price

b. Predictors: (Constant), DER, ROE, CR

Based on the F-test above, the conclusion is all the independent variables simultaneously impact the stock price, $F(3,16) = 22.249$, $p < 0.001$.

Next, the t-test below could reveal which variables that are significant in terms of impacting the stock price.

**Table 7 t-Test
Coefficients^a**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3501.906	650.475		5.384	<.001		
	ROE	85.975	13.940	.699	6.168	<.001	.941	1.063
	CR	-1228.038	654.379	-.246	-1.877	.079	.706	1.416
	DER	-1595.001	428.575	-.499	-3.722	.002	.671	1.490

a. Dependent Variable: Price

From the above, ROE significantly impacts the stock price, $t = 6.168$, $p < 0.001$. However, the Current Ratio does not significantly impact the stock price, $t = -1.877$, $p = 0.079$ (> 0.05). DER also significantly impacts the stock price negatively, $t = -3.722$, $p = 0.002$ (< 0.05).

The below could show the correlation and the coefficient of determination.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.898 ^a	.807	.770	784.06467	1.693

a. Predictors: (Constant), DER, ROE, CR

b. Dependent Variable: Price

The correlation between the independent variable and the dependent variables is very strong, $r = 0.898$ (> 0.8). 77% of the variation in stock price could be explained by this model ($R^2 = 0.77$).

Discussion

The Impact of Current Ratio on Stock Price

Based on the analysis above, it could be inferred that the current ratio does not play a key role in influencing stock price. The current ratio mainly indicates the short-term liquidity position of a company, while investors usually show more interest in the growth, profitability prospects, and strategic outlook for the long term. In fact, for a company that is highly liquid but neither growing nor churning out significant profits, the stock price may not necessarily respond positively. This finding aligns with the research of Subastyan (2024) which analyzed 20 manufacturing companies as well as Prayoga & Wahyudi's research (2021) that covers 11 mining companies in 2012-2020 plus the study of Yusnelly et al (2022) that explores LQ45 companies in 2017-2018 in which they discovered that the current ratio does not influence those firms' stock prices

The Impact of Debt-to-Equity Ratio on Stock Price

From the above, the finding is the debt-to-equity ratio impacts the stock prices negatively. The logic behind this is when a company has high leverage, it would look riskier to the investors because there is a potential that the company may default or could not pay its obligations. If so, the investment in the company would turn nil and this would be very disadvantageous for the investors. This research is in line with the research of Novelia (2024) in which the scope of the study is the stock price of PT Hanjaya Mandala Sampoerna Tbk in 2010-2023 as well as the study of Adistriana et al (2024) whose objects are pharmacy companies during 2019-2021 that found that debt to equity ratio significantly affects the stock prices.

The Impact of ROE on Stock Price

Lastly, another notable finding is ROE impacts stock price positively. The reason behind this is investors usually try to find companies that are profitable because it means that in the future, the prospect would be very good, pushing the price to increase. This finding agrees with the study of Manoppo (2015) that investigates the financial aspect of 11 insurance companies within 2010-2014 plus Ummah et al (2023)'s research where the objects are 52 companies in the Consumer Cyclical sector listed in ISSI and Lusiana (2020)'s study that entails food and beverage companies during 2015-2018 in which ROE affects the stock prices

CONCLUSION

This study attempts to look at the relationship between financial ratios: Return on Equity, Current Ratio, and Debt-to-Equity Ratio, with regard to the stock price of selected telecommunication companies listed in IDX. The result shows that ROE significantly and positively affects the stock price, meaning the higher the profitability of the company, the more interest it gets from investors, resulting in an increase in its stock price. On the other hand, the Current Ratio is not as crucial to the stock price because investors are more concerned with the long-run growth and profitability of the firm instead of its short-run liquidity position. The Debt-to-Equity Ratio inversely influences the stock prices, which gives credence to the fact that firms with high borrowings are considered riskier by the investors because of its threat of default. The research, therefore, points out that middle-class investors should look at the profitability through ROE and leverage through DER when choosing telecommunication stocks in order to capture their potentially significant effects on movement in stock prices.

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