

THE EFFECT OF LIQUIDITY, SOLVENCY, AND PROFITABILITY RATIOS ON FINANCIAL PERFORMANCE IN TELECOMMUNICATION COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE FOR THE 2021-2023 PERIOD

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ABSTRACT

The purpose of this study was to determine the effect of liquidity ratio as measured by current ratio (CR), solvency ratio as measured by debt to equity ratio (DER) and profitability ratio as measured by net profit margin (NPM) on financial performance as measured by return on assets (ROA) in telecommunication companies listed on the IDX for the period 2021-2023. This type of research is quantitative and the population in this study are all telecommunications companies listed on the IDX for the 2021-2023 period, totaling 22 companies with purposive sampling techniques with certain criteria totaling 20 companies for 3 years of observation, totaling 60 samples. This study uses secondary data, namely the financial statements of telecommunications companies for 2021-2023 obtained through the official website www.idx.co.id. The statistical data analysis method used is multiple linear regression which is processed using IBM SPSS Statistic software. The results showed that current ratio (CR) partially has a significant effect on financial performance, debt to equity ratio (DER) partially has a significant effect on financial performance, and net profit margin (NPM) partially has a significant effect on financial performance in telecommunications companies listed on the IDX for the 2021-2023 period. The adjusted R square value is 38.6%, which means that the variation in financial performance as measured by CR, DER and NPM, while the remaining 61.4% is influenced by other variables outside the research model used in this study.

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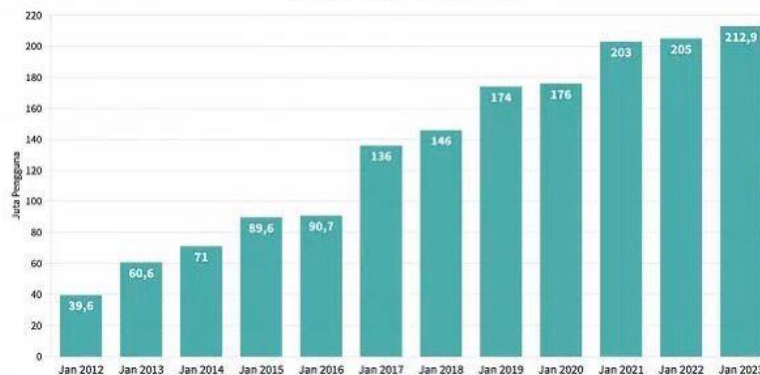
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INTRODUCTION

In today's modern era, the telecommunications industry is experiencing rapid development that requires product service providers that can meet consumer needs well. Competition between telecommunications companies is becoming increasingly fierce as each company strives to maintain and increase its competitive value. Efforts to optimize this added value encourage intense competition among telecommunications companies (Ramlawati et al., 2022). Today, all companies have the opportunity to change their status from private to public by offering or selling shares to the public. This gives the public the opportunity to own a part of the company they are interested in by investing and listing its shares on the Indonesia Stock Exchange (IDX). This process is known as a company going public (Ompusunggu & Febriani, 2023). Companies listed on the Indonesia Stock Exchange (IDX) continue to grow. In August 2021 the number of companies listed on the Indonesia Stock Exchange was 729 companies, in August 2022 there were 778 companies and in March 2023 there were 857 companies. The company is divided into 11 sectors, one of which is the infrastructure sector. The total number of infrastructure companies listed is 67 companies which are divided into 4 sectors, namely the transportation infrastructure sector, construction & heavy engineering, telecommunications, and utilities. The telecommunications subsector is one of the leading subsectors that contributes greatly to national economic growth.

Figure 1 Internet users in Indonesia

Jumlah Pengguna Internet di Indonesia
(Januari 2012 - Januari 2023)



sumber: www.Apjii.co.id (diakses 2024)

Figure 1 above shows that the growth of internet users in Indonesia from year to year is increasing. The rapid growth projected by APJII (Association of Indonesian Internet Network Operators) is in 2022, with an estimated growth that will penetrate up to 212,9 million users, or up 7,9 percent from the previous year. The development of the internet and smart phones has made

the demand for this type of service increase rapidly beyond the demand for conversation and SMS services.

This condition has made telecommunication companies begin to focus on building services and network infrastructure to create data services that meet consumer desires. This focus on building services and infrastructure has led companies to allocate large amounts of funds to their capital expenditures. A company can be said to achieve success and win the competition if it can generate maximum profit.

Finance is a very important field in a company. Many companies, large or small, will have great attention in the financial sector, especially in the development of an increasingly advanced business world, increasingly fierce competition between one company and another, not to mention uncertain economic conditions, causing many companies to suddenly experience bankruptcy. Therefore, in order for the company to survive or even grow and develop, it must pay close attention to the company's financial condition and performance.

Referring to the previous explanation, the researcher made "**The Effect of Liquidity, Solvency, and Profitability Ratios on Financial Performance in Telecommunication Companies Listed on the Indonesia Stock Exchange for the 2021-2023 Period**" as the title of this research.

OVERVIEW

Financial Performance

Financial performance can be interpreted as the achievement achieved by the company in a certain period which reflects the level of health of the Company. financial performance is the result or achievement that has been achieved by the company's management in carrying out its function in managing the company's assets effectively during a certain period, where financial performance is needed by the company in order to know and evaluate the level of success of the company based on the financial activities that have been carried out. (Rizki Andriani & Rudianto, 2019). The performance of a company can be seen from the company's ability to make a profit during company operations. One indicator commonly used by investors is Return On Assets (ROA). According to (Sihombing et al., 2022), Return On Assets (ROA) shows how much assets contribute to generating net income. The higher the Return On Assets value, the higher the profit the company gets and the better the company's ability to use its assets. ROA is used by management to determine company policies and strategies related to company development. Meanwhile, for investors and potential investors, ROA provides an overview of the return on investment invested in the Company (Kasmir, 2019). The formula for ROA is :

$$\text{Return On Assets} = \frac{\text{Net Profit}}{\text{Total Asset}} \times 100\%$$

One of the measurements that can be used in measuring the profit earned by the company is through Return On Asset (ROA). Return On Assets (ROA) is how efficient a company is in

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managing its assets to generate profits during a period expressed in percentage (%). Roa can help management and investors to see how well a company is able to convert its investment in assets into profit or profit (Profit). ROA is calculated by dividing the company's net income (usually annual income) by its total assets. The calculation of ROA will change if the company's profit increases or decreases.

Financial Ratios

(Sihombing et al., 2022) financial ratio analysis is an activity to compare the numbers in the financial statements. Comparisons can be made between one component with components in one financial report or between components that exist between financial statements. Furthermore, the numbers being compared can be numbers in one accounting period or several periods.

Meanwhile, Sutrisno, (2018) argues that for evaluation purposes it is necessary to connect the elements in the financial statements, so that they can be interpreted further. Connecting elements in financial statements is often referred to as financial ratio analysis.

Liquidity Ratio

A ratio that shows the company's ability to fulfill obligations or pay its short-term debt (Hery, 2018). Liquidity is one of the measuring tools to know the company's activities because low liquidity will result in the difficulty of the company in paying off obligations, especially short-term obligations. Liquidity ratios consist of current ratio, cash ratio and quick ratio. The ratio used in this study is the current ratio which describes the condition of all current assets owned by the company. The formula used is :

$$\text{Current ratio} = \frac{\text{current assets}}{\text{current debt}} \times 100\%$$

This ratio is a way to measure the ability of a company to fulfill its obligations, with a guideline of 2:1 or 200% this is the minimum ratio that a company will maintain.

Solvency Ratio

The solvency ratio shows how much the company's funding needs are funded by debt. The lower the solvency factor, the less risk the company has if economic conditions deteriorate. The greater the level of solvency of the company, the greater the amount of debt used, and the greater the business risk faced, especially if economic conditions worsen. The solvency ratio consists of the ratio of total debt (Total debt to assets) and the ratio of debt to equity (Debt to Equity Ratio). The ratio used in this study is Debt to Equity Ratio (DER) The ratio between the company's total debt and total equity capital, the formula used is as follows:

$$\text{Total Debt to Equity} = \frac{\text{Total debt}}{\text{equity}} \times 100\%$$

The higher this ratio, the less equity capital the company has compared to its debt. The lower the DER value, the better, as it shows that the company has more equity capital generated from shareholder investment than debt.

Profitability Ratio

This ratio describes the company's ability to generate profits through all its capabilities and resources, which come from sales activities, use of assets, and use of capital. Good performance will be shown through management's success in generating maximum profit for the company. (Hery, 2019). The profitability ratio used in this study is Net Profit Margin. By comparing net income with total sales, investors can see what percentage of revenue is used to pay operational costs and non-operational costs and what percentage is left over that can pay dividends to shareholders or reinvest in the company. The formula used is as follows:

$$\text{Net Profit Margin} = \frac{\text{Net profit}}{\text{Sales}} \times 100\%$$

According to (Harahap, 2018), the greater this ratio the better because it is considered the company's ability to earn profits. If the ratio is low, it indicates sales that are too low for a certain level of costs, or costs that are too high for a certain level of sales, or a combination of both.

METHOD

This research is descriptive research, the type of data used is quantitative, which is in the form of numbers with secondary data. In this study, the independent variables used are liquidity ratios as measured by current ratio (X1), solvency ratios as measured by Debt to equity ratio (X2) and profitability ratios as measured by Net profit margin (NPM) while the dependent variable used is financial performance as measured by Return on assets (Y). The population in this study were all telecommunication companies listed on the IDX for the period 2021-2023, totaling 22 companies with purposive sampling techniques with certain criteria totaling 20 companies for 3 years of observation, totaling 60 samples. The data analysis techniques used in this study are descriptive statistics, classical assumption tests, multiple linear regression, hypothesis testing (t test and F test) and the coefficient of determination.

RESULTS AND DISCUSSION

Descriptive Statistical Test

Table 1 Descriptive Statistical Test Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
CR	60	0,02	14,53	1,1186	2,31717
DER	60	1,01	1,99	1,6769	0,21847
NPM	60	0,04	0,93	0,4377	0,15439
ROA	60	1,38	2,26	1,9008	0,22906
Valid N (listwise)	60				

Based on table 1 above, it shows that the CR variable has the lowest value of 0.02 and the highest value of 14.53 with an average value of 1.1186 and a standard deviation of 2.31717. The DER variable has the lowest value of 1.01 and the highest value of 1.99 with an average value of 1.6769 and a standard deviation of 0.21847. The NPM variable has the lowest value of 1.04 and the highest value of 0.93 with an average value of 0.4377 and a standard deviation of 0.15439. The ROA variable has the lowest value of 1.38 and the highest value of 2.26 with an average value of 1.9008 and a standard deviation of 0.22906.

Classical Assumption Test

Data Normality Test

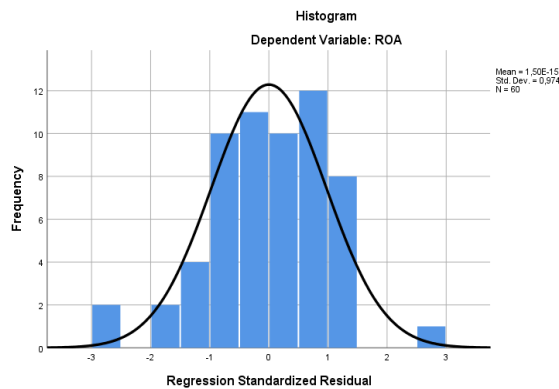
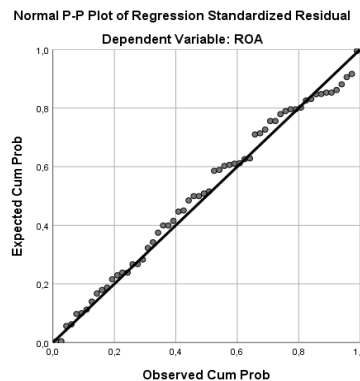


Figure 2 Histogram of Data Normality Test Results

Based on Figure 2 histogram above, the data distribution is under the curve and the curve forms like a bell. This means that the data distribution is normal, to corroborate the above results, a test is carried out through the P-P Plot graph below:

Figure 3 P-P Plot Test Results



Based on the test results through the P-P Plot graph above, it can be seen that the points spread straight near the diagonal line, so it can be concluded that the research data is normally distributed. To strengthen the two results above, testing was carried out through the One Sample Kolmogorov-Smirnov Test. The normality test is carried out by testing the unstandardized residual value of the regression model using the One Sample Kolmogorov-Smirnov Test.

Table 2 Kolmogorov Smirnov Test Results (KS-Test)

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		60
Normal Parameters ^{a,b}	Mean	0,0000000
	Std. Deviation	0,17482350
Most Extreme Differences	Absolute	0,071
	Positive	0,066
	Negative	-0,071
Test Statistic		0,071
Asymp. Sig. (2-tailed)		,200 ^{c,d}

Based on Table 2 above, it shows that the Kolmogorov-Smirnov value is 0.071, while the Asymp. Sig. (2-tailed) is 0.200. This shows that the value of Asymp. Sig. (2-tailed) is greater than the significance level ($\alpha = 5\%$) or ($0.200 > 0.05$) which means that the data in the study are normally distributed, so this normality test shows that the normality assumption is met.

Multicollinearity Test

Table 3 Multicollinearity Test Results

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1,068	0,191		5,600	0,000		
	CR	0,032	0,010	0,325	3,120	0,003	0,960	1,042
	DER	0,300	0,109	0,286	2,750	0,008	0,962	1,040
	NPM	0,672	0,153	0,453	4,388	0,000	0,977	1,024

Based on Table 3 above, it shows that all VIF values are < 10 , consisting of the VIF value of CR of 1.042; VIF value of DER of 1.040; VIF value of NPM of 1.024. Meanwhile, all Tolerance values are also > 0.10 or < 1 , consisting of the Tolerance value of CR of 0.960; Tolerance value of

DER of 0.962; Tolerance value of NPM of 0.977. Thus, based on the VIF value and Tolerance value of all independent variables, it can be concluded that the regression model does not occur multicollinearity, so further testing can be continued because it has met the requirements to be free from multicollinearity symptoms.

Heteroscedasticity Test

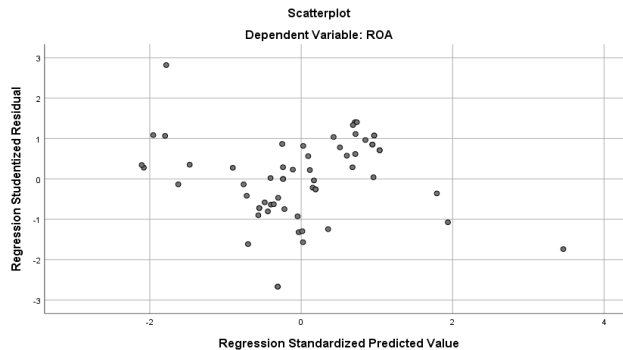


Figure 4 Heteroscedasticity Test Results

Based on the results of the heteroscedasticity test through the scatterplot graph above, the results show that the points spread above and below the value of 0 and spread far from the Y axis. In addition, the points spread without forming a specific pattern. Thus, it can be concluded that there are no symptoms of heteroscedasticity in the research data, so the assumption of heteroscedasticity is met. As for strengthening the above results, the researcher conducted additional testing through the Glesjer test below:

Table 4 Glesjer Test Results

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0,131	0,114		1,151	0,254
	CR	0,008	0,006	0,174	1,293	0,201
	DER	0,012	0,065	0,024	0,177	0,860
	NPM	-0,051	0,092	-0,074	-0,554	0,581

Based on the table above, the results show that the CR sig value is 0.201; DER sig value is 0.860; NPM sig value is 0.581. Each variable has a significance value greater than 0.05, indicating that the research data is free from heteroscedasticity symptoms.

Autocorrelation Test

Table 5 Autocorrelation Test Results

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,646 ^a	0,418	0,386	0,17945	1,769

Based on the table above, it can be seen that the Durbin Watson value is 1.769, the comparison uses a significance value of 5%, the number of samples is 60 (n), and the number of independent variables is 3 (k = 3), then in the Durbin Watson table the du value is 1.81. Because the DW value of 1.769 is greater than the upper limit (du) of 1.688 and less than 4 - 1.688 (2.312), it can be concluded that there is no autocorrelation in the regression model fulfilled.

Multiple Linear Regression Test

Table 6 Multiple Linear Regression Test Results

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1,068	0,191		5,600	0,000		
	CR	0,032	0,010	0,325	3,120	0,003	0,960	1,042
	DER	0,300	0,109	0,286	2,750	0,008	0,962	1,040
	NPM	0,672	0,153	0,453	4,388	0,000	0,977	1,024

Mathematically, the results of the multiple linear regression analysis obtained multiple linear regression equations as follows:

$$\text{ROA} = 1.068 + 0.032 \text{ CR} + 0.300 \text{ DER} + 0.672 \text{ NPM}$$

Based on the regression equation above, it is obtained that there is a positive relationship between CR and ROA, there is a positive relationship between DER and ROA, there is a positive relationship between NPM and ROA.

Hypothesis Testing Results

Test Coefficient of Determination (R²)

Table 7 Test Results of the Coefficient of Determination (R²)

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Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,646 ^a	0,418	0,386	0,17945	1,769

Based on Table 7 above, it can be seen that the results of the coefficient of determination (R²) test obtained an Adjusted R² value of 0.386 or 38.6%. This shows that Financial Performance (ROA) can be influenced by 38.6% by the independent variables, namely Liquidity (CR), Solvency (DER) and Profitability (NPM). While 61.4% of financial performance (ROA) is influenced by other variables outside the research model that are not used in this study.

Simultaneous Test (F Test)

Table 8 Simultaneous Test Results (F Test)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1,293	3	0,431	13,380	,000 ^b
	Residual	1,803	56	0,032		
	Total	3,096	59			

Based on the results of the F test calculation according to table 8, a significance value of 0.000 was obtained. Thus the significance value is smaller than the significance level $\alpha = 5\%$ or (0.000 < 0.05), it can be seen that the significance value of 0.000 is smaller than 0.05 which means that Liquidity (CR), Solvency (DER) and Profitability (NPM) together (simultaneously) have a significant influence on financial performance (ROA). then it can be concluded that the regression model used in this study has a fit regression model or is suitable for use.

Partial Test (T Test)

Table 9 Partial Test Results (T Test)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1,068	0,191		5,600	0,000		
	CR	0,032	0,010	0,325	3,120	0,003	0,960	1,042
	DER	0,300	0,109	0,286	2,750	0,008	0,962	1,040
	NPM	0,672	0,153	0,453	4,388	0,000	0,977	1,024

Based on table 9 above, it can be concluded that the liquidity variable has a significant value of 0.003 smaller than 0.05, which means that liquidity partially has a significant effect on financial performance. the solvency variable has a significant value of 0.008 smaller than 0.05, which means that solvency partially has a significant effect on financial performance. the

profitability variable has a significant value of 0.000 smaller than 0.05, which means that profitability partially has a significant effect on financial performance.

CONCLUSIONS

Based on the results of the analysis and discussion described above regarding the effect of liquidity, solvency and profitability ratios on the financial performance of telecommunications companies listed on the Indonesia stock exchange for the period 2021-2023, the research conclusions are as follows:

The results of the T-test in this study found that liquidity proxied by the Current Ratio (CR) has a significance value of 0.003 smaller than 0.05, which means that CR has a positive and significant effect on financial performance in telecommunications companies listed on the Indonesia stock exchange for the 2021-2023 period. This proves that a high CR value means that the higher the company's ability to repay its short-term debt.

Solvency proxied by Debt to equity ratio (DER) has a significance value of 0.008 smaller than 0.05, which means that DER has a positive and significant effect on financial performance in telecommunication companies listed on the Indonesia stock exchange for the period 2021-2023. This proves that a high DER value means that it shows how much the company's funding needs are financed with debt.

Profitability proxied by Net Profit Margin (NPM) has a significance value of 0.000 smaller than 0.05, which means that DER has a positive and significant effect on financial performance in telecommunications companies listed on the Indonesia stock exchange for the 2021-2023 period. This proves that a high NPM value means that the company's performance is more productive and the company's profits (net income) are increasing.

The results of the Coefficient of Determination (R²) show that the correlation between financial performance and the 3 independent variables is 38.6%, while the remaining 61.4% is influenced by other variables not included in the regression model.

Research Limitations

In conducting this research, of course, there are limitations, including the financial ratio variables used in this study are only represented by one ratio for each financial performance. The variables used in this study only consist of 3 variables consisting of liquidity, solvency and profitability ratios, even though there are many other variables that may have more influence on the company's financial performance. This is shown from the results of the analysis which states that the independent variables in this study only have an influence on financial performance of 38.6% while the remaining 61.4% is influenced by other variables not included in the study.

Suggestion

Based on research, discussion and conclusions, there are several suggestions related to research, namely for further research, it is recommended that adding financial ratios and other variables that are not only limited to liquidity ratios (CR), solvency (DER) and profitability (NPM)

alone as independent variables, because maybe other variables not included in this study can have a stronger effect on financial performance.

Expanding the sample of companies and the research period in order to obtain a better picture in presenting the data and the conclusions obtained are more perfect, thus producing more supportive information. Further research related to the variables of Liquidity, Solvency, Profitability whose results are not proven to have an effect on financial performance by looking at the reasons given by the researcher.

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