Effect Of Profitability And Solvency As Well As Inflation And Exchange Rate On Stock Return Through Stock Price As An Intervening Variable In Telecommunication Service Companies In Indonesia For The Period 2016 – 2021

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ABSTRACT: *This study aims to analyze the effect of Net Profit Margin (NPM), Debt to Equity Ratio (DER), inflation and exchange rates on stock returns and whether stock prices are able to mediate the effect of NPM, DER, inflation and exchange rates on stock returns. This research is to find out the phenomenon that stock return is one of the measurement tools used to provide information about the successful management of a company. The case studies were determined by telecommunications sub-sector companies listed on the Indonesia Stock Exchange from 2016 to 2021. The population for this study was 18 companies, the sampling technique used was purposive sampling method. The use of this sampling technique produces 6 companies that meet the criteria. Data analysis techniques used include simple regression (t test), multiple regression (F test), and methods to test the effect of intervening variables using the Sobel Test. Data processing was carried out with the help of IBM SPSS Ver 27. The results of this study are that partially NPM, DER, inflation and exchange rates have no significant effect on stock returns and partially NPM, DER, inflation and exchange rates have a significant effect on stock prices. Stock prices have a significant effect on stock returns and stock prices are able to mediate the relationship between NPM, DER, inflation and exchange rates on stock returns.*
KEY WORD*: NPM, DER, Inflation, Stock Returns, Telecommunications*


I.   INTRODUCTION AND LITERATURE REVIEW

The telecommunications services company is one of the infrastructure, utilities and transportation sub-sector companies listed on the Indonesia Stock Exchange which is growing and developing in Indonesia. This is marked by the many construction of telecommunication network towers in both urban and rural areas. The construction of telecommunications network towers in both urban and rural areas has resulted in developments in telecommunications companies. This also makes communication a necessity that makes it easier for every community to provide and obtain information.

Telecommunications company shares are starting to become the target of market players, where many market players issue recommendations for shares in this sub-sector and make telecommunications operators compete in developing services. In addition, the decrease and increase in sales of shares in telecommunications sub-sector companies resulted in the value of profit and earnings per share automatically experiencing conditions due to changes in net income and vice versa. The following is a graph illustrating the development of stock prices for telecommunications sub-sector companies in 2015 – 2019:

Picture 1. Chart Price Share Sub Sector Telecommunication
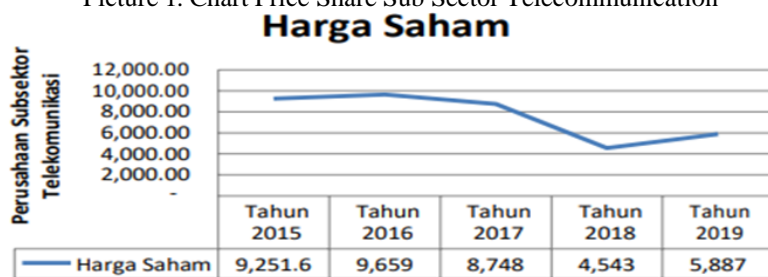
Source: Data Processed, 2022.

The graph above shows that in 2016 the highest average share price was in the Telecommunications Sub Sector Company, namely IDR 9,659. And in 2018 it was the lowest share price for telecommunications sub-sector companies during the 2015 - 2019 period of IDR 4,543. With this highly fluctuating telecommunications stock price, stock returns tend to fall, as happened in the 2017-2021 period, which can be seen from the following graph:

Table 1. Returns Share in %

NO	Name Company	RETURN SHARE				
	Year	2017	2018	2019	2020	2021
1	CENT	0.195	-0.328	0.075	-0.051	0.945
2	EXCL	-0.358	0.281	-0.331	0.591	-0.133
3	FREN	0.039	-0.057	0.566	0.769	0.514
4	ISAT	0.173	-0.256	-0.649	0.727	0.735
5	LINK	0.000	0.318	-0.111	0.186	-0.124
6	TLKM	0.288	0.068	-0.109	-0.192	-0.391

Source: Data processed

Based on the graphic data above, it can be explained that the stock returns of telecommunications companies listed on the Indonesia Stock Exchange in 2017-2021 tend to decline. This condition can certainly worry investors, for their investment in telecommunications companies, considering that share prices for the 2017-2021 period tend to continue to decline. If this happens continuously, it is likely that investors will withdraw their investment in the company and as a result the company will lack funds to run the company's operations which in the end the company will experience losses and even bankruptcy.

Research conducted by Abdullah et al., (2018) shows that Net Profit Margin has a significant negative effect on Stock Returns, while researchers Reymon Nirwana et al., (2022) and Djamaluddin et al., (2018) show that Net Profit Margin has a significant positive effect on Stock Returns. Research conducted by Sitohang et al., (2019) revealed that the Debt to Equity Ratio (DER) variable has a significant positive effect on stock returns. In contrast to research conducted by Marito et al., (2020) that the Debt to Equity Ratio (DER) variable has a negative effect on stock returns. Meanwhile, researcher Yudha et al., (2019) states that the Debt to Equity Ratio (DER) variable has a significant effect on stock returns. Research conducted by Palmgren et al., (2019) and Suharyanto et al., (2021) revealed that inflation and exchange rates had a significant negative effect on stock returns, while research by Qotrunnada et al., (2021) and Novriyani (2021) stated that inflation and exchange rates had a positive effect on stock returns.

Research conducted by A'iniyah et al., (2021) shows that stock prices have a positive and significant effect on stock returns. Meanwhile, researcher Setiyanti (2016) states that stock prices have a negative effect on stock returns and researcher Yusra (2019) states that stock prices have no effect on stock returns.

Based on the background of the problems described, a study was carried out on the determinant variable of Stock Return from an internal perspective and an external perspective on telecommunications stocks in Indonesia. Therefore, the research results are expected to be able to reveal the determinants of stock returns. For this reason, the authors carried out a study entitled "The Influence of Profitability and Solvability as well as Inflation and Exchange Rates on Stock Returns through Stock Prices as Intervening Variables in Telecommunications Service Companies in Indonesia for the 2016 - 2021 period"

1.2 Research Objectives

This study aims to test and explain the effect of profitability, solvency, inflation and exchange rates on stock returns through stock prices as intervening in telecommunication service companies on the Indonesia Stock Exchange.

1.3 Research Methodology and Data Analysis

In this study, quantitative data types were used in the form of secondary data obtained by accessing the website www.idx.co.id and using the Indonesian Capital Market Directory (ICMD). Based on the proposed research hypothesis, 6 variables were identified that were used in this study, namely the independent variables consisting of:

Stock Return : Stock Return for a certain period can be obtained by the difference between the current closing price of the stock and the current adjusted stock price, then add the result of the difference between the

current adjusted stock price and the adjusted stock price of the previous day . Calculating the stock return can use the equation as follows:

Ri = (Close $_t$ – Adj Close $_t$) + (Adj Close $_t$ - Adj Close $_{t-1}$)
D where:
Ri   =   Return of shares of each company
close $_t$ =   Stock   price on that day (close price) each company on t
Adj Close $_t$ =   Share price adjusted (A adjusted close price) each company on t
Adj Close $_{t-1}$ =   Adjusted close price of each company on t- 1

Debt to Equity Ratio: According to Ely Siswanto (2021:40) says that the Debt to Equity Ratio (DER) is the ratio used to measure the proportion of debt to capital. This ratio is calculated as the quotient between total debt and total capital.

Net Profit Margin: According to Kasmir (2014: 202), explains that NPM is obtained by equating operating profit with sales. The greater the value of this ratio, indicating that the profitability of the industry continues to be good so that investors are interested in investing their capital.

Inflation : According to Blanchard and Johnson (2016: 39), inflation is defined as a gradual increase in the general price level and the inflation rate is defined as an increase in the price level.

Exchange Rate: Santosa (2016:5-6) explains that the exchange rate, in the free exchange rate, occurs from a process of strength between the demand and supply of foreign exchange. So that movements/changes in exchange rates can occur at any time due to internal factors (domestic: economics, politics) and external factors (foreign: interest rates, state policies with hard currency).

Stock Price: According to R. Agus Sartono (2010:41), the stock price is the present value or present value of the expected cash flow received. Random (irregular) stock price movements can be analyzed using a fundamental approach, by knowing the financial statements of a public company, if the report is positive then it is likely that the stock price will move positively

The collection technique in this study is electronic documentation. Researchers used secondary data sourced from the official website of Islamic commercial banks, the website of the Financial Services Authority (OJK) and Bank Indonesia regarding annual financial reports from 2016 to 2021 in the form of NPM, DER, EXCHANGE, and inflation data. The data that has been collected is then processed and analyzed to then be presented in numerical order. This is carried out to measure and prove the research hypothesis, so as to answer the existing problem formulation (Atmowardoyo, 2018: 201). In research, data will be processed and presented in tabular form using Microsoft Excel 2019. Because in this study there are intervening variables, to produce accurate data analysis, the SPSS computer statistics program is used with the SEM (Structural Equation Model) method.

According to Bollen (1989), Structural Equation Modeling (SEM) is a multiple change technique that can simultaneously analyze several endogenous and exogenous latent changes. SEM is used to analyze a series of relationships simultaneously so as to provide statistical process efficiency. According to Hair, et. al., (2007), the estimation of different but related regression equations was jointly carried out with a structural model in SEM. In terms of methodology, according to Wijanto (2008: 119), SEM has several roles, including, as a system of simultaneous equations, linear causal analysis, covariance structure analysis, path analysis (path analysis) and structural equation models.

According to Retnawati (2017: 3) the path coefficient is calculated by making two structural equations, namely the regression equation which shows the hypothesized relationship. In this case there are two equations are:

Z   =   p2 X1 + p2 X2 + p2 X3 + p2 X4 + e 1 ....(1)
Y   =   p1 X1 + p1 X 2 + p1 X3 + p1 X4 + p3 Z + e2................................(2)

X in equation (1) will give the value of p2. While the coefficients for X and Z in equation (2) will give the values of p1 and p3.

The intervening variable is an intermediate or connecting variable (mediation), its function is to mediate the relationship between the independent variables and the dependent variable. In the example, the relationship between Net Profit Margin (NPM) and Stock Return is mediated by the Stock Price variable. So the share price structure is as intervening or as described below

Figure 2. Path Analysis Model

$$P1 \times p3 > p2$$
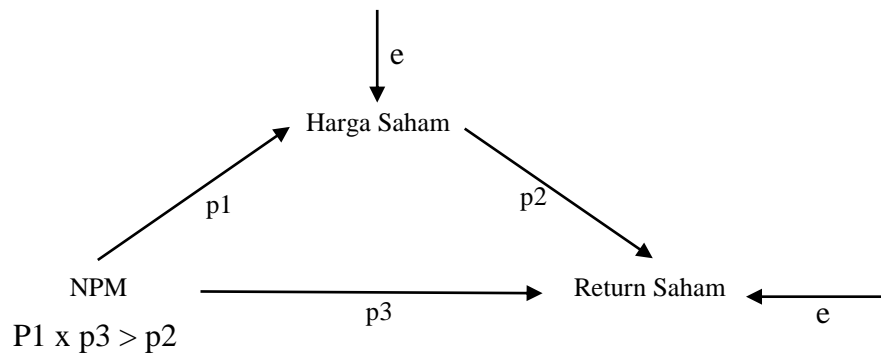
In the figure it can be explained that NPM can have a direct effect on stock returns, but it can also have an indirect effect, namely through the stock price variable first and then to stock returns. To examine the effect of intervening variables used path analysis method (Path Analysis). Path analysis is an extension of multiple linear regression analysis, or path analysis is the use of regression analysis to estimate the causal relationship between variables (casual model) that has been determined previously based on the theory. Path analysis alone cannot determine causal relationships and also cannot be used as a substitute for researchers to see causal relationships between variables. The causal relationship between variables has been established with a model based on a theoretical basis. What path analysis can do is determine patterns of relationships between three or more variables and cannot be used to confirm or refute imaginary causality hypotheses.

The mathematical formulation can be explained as follows:

The direct effect of NPM on stock returns = p2
The indirect effect of NPM on stock prices on stock returns = p1 x p3
Total influence (correlation of NPM to stock returns) = p2+(p1x p3)

The path coefficient is a standardized regression coefficient. Path correlation is calculated by making two structural equations, namely the regression equation which shows the hypothesized relationship.

Information:
Y   = Stock Return
Z   = Stock Price
α = constant
X1   = Debt to Equity Ratio
X2   = Net Profit Margin
X3   = Inflation
X4   = Exchange Rate
e = error rate

1.3.1 Hypothesis testing and proposition development

Before testing the hypothesis, the classical assumption test is first carried out, the classical assumption test is a requirement that must be met in calculations using regression analysis to assess whether a linear regression model has classic assumption problems so it is not feasible to be tested.

The normality test of this study uses the P-Plot test and the non-parametric Kolmogrov Sminov (KS) if the probability value is greater than 0.05 then the data is normally distributed, but if the probability value is less than 0.05 then the data is not normally distributed, while the graphical method used in this study is by looking at the normal probability plot. The normal probability plot is to compare the cumulative distribution of the normal distribution (Ghozali, 2018). The basis for making decisions through this analysis, if the data spreads around the diagonal line as a representation of a normal distribution pattern, it means that the regression model meets the assumption of normality.

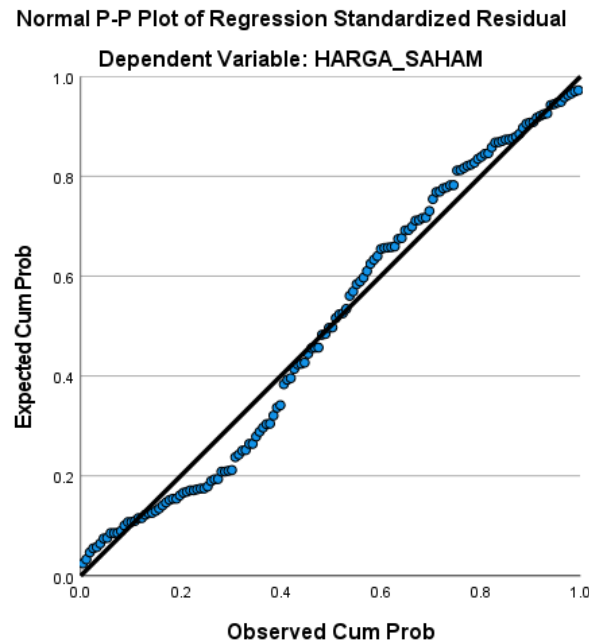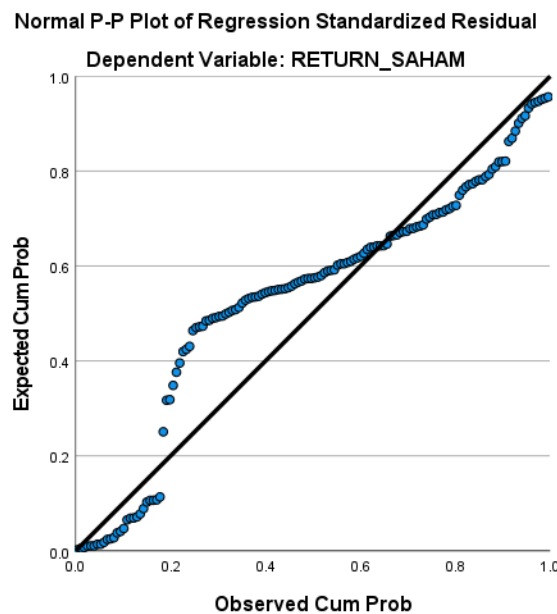Figure 3. Results of the P-Plot Graph Normality Test Model 1

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: HARGA_SAHAM

Figure 4. Results of the P-Plot Graph Normality Test Model 2

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: RETURN_SAHAM

In the picture above it can be seen that the plotted data (dots) follow a diagonal line, so the conclusion of the normality test is that the regression model is normally distributed.

The multicollinearity test aims to test whether there is a correlation between the independent variables in the research model. A good model is a model that has no correlation between the independent variables. To detect whether there is multicollinearity in the regression model is to look at the tolerance value and the Variance Inflation Factor (VIF). If the tolerance value is > 0.1 and VIF < 10, it can be concluded that there is no multicollinearity between the independent variables in the regression model. Following are the VIF values in this research model:

Table 2. Multicollinearity Test Results Equation 1

Coefficients ᵃ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	std. Error	Betas			Tolerant	VIF
1	(Constant)	4676.286	2402022		1947	054		
	NPM	42,086	4,023	.687	10,462	.000	.793	1,260
	DER	1041280	101,275	.687	10,282	.000	.765	1,307
	INFLATION	355,973	128,356	.192	2,773	006	.716	1,397
	EXCHANGE RATE	-.401	.157	-.172	-2,554	012	.750	1,334

a. Dependent Variable: PRICE_SAHAM
Source: Processed primary data, 2023

From the table above it can be seen that each independent variable has a tolerance value > 0.1 and a VIF value < 10. So it can be concluded that there is no multicollinearity between the independent variables in this equation 1 model.

Table 2. Multicollinearity Test Results Equation 1

Coefficients ᵃ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	std. Error	Betas			tolerance	VIF
1	(Constant)	93,951	328,107		.286	.775		
	NPM	.017	.725	001	024	.981	.444	2,253
	DER	-3,566	18.110	-.011	-.197	.844	.435	2,301
	INFLATION	29,021	17,771	.074	1633	.105	.678	1,474
	EXCHANGE RATE	-.016	022	-.032	-.732	.465	.716	1,396
	STOCK PRICE	.189	011	.889	16,500	.000	.475	2.104

a. Dependent Variable: RETURN_SAHAM
Source: Processed primary data, 2023

From the table above it can be seen that each independent variable has a tolerance value > 0.1 and a VIF value < 10. So it can be concluded that there is no multicollinearity between the independent variables in this equation 2 model.

This autocorrelation test aims to test whether in a regression model there is a correlation of confounding errors in the t period with the previous period (t-1). If there is a correlation, then it is said that there has been an autocorrelation. A good model should not have autocorrelation. This autocorrelation problem is often experienced by time series data. The autocorrelation test in this study used the Durbin Watson test. If the results of the Durbin Watson values are between dU and 4-dU, then it is said that there is no autocorrelation in the data. The following are the results of the first and second model autocorrelation tests:

Table 3. Durbin Watson Model 1 Test Results

Summary Model [b]

Model	R	R Square	Adjusted R Square	std. Error of the Estimate	Durbin-Watson
1	.724 [a]	.525	.511	1175.75902	.611

a. Predictors: (Constant), VALUE_TUKAR, NPM, DER, INFLATION

b. Dependent Variable: PRICE_SAHAM

Source: Processed primary data, 2023

Table 4. Durbin Watson Model 2 Test Results

Summary Model [b]

Model	R	R Square	Adjusted R Square	std. Error of the Estimate	Durbin-Watson
1	.900 [a]	.810	.803	158.45856	.167

a. Predictors: (Constant), SHARE_PRICE, INFLATION, NPM, EXCHANGE_VALUE, DER

b. Dependent Variable: RETURN_SAHAM

Source: Processed primary data, 2023

In the table above it can be seen that the DW is 0.611 and 0.167. This means that by looking at the decision-making criteria, it can be concluded that in the regression model there is no autocorrelation because the values 0.611 and 0.167 are between -2 and +2 in model 1 and model 2.

To test whether in the regression model there is a variance similarity from one residual observation to another, it is necessary to perform a heteroscedasticity test. A good regression model is one that has homoscedasticity or does not have heteroscedasticity (Ghozali, 2018). The method used to detect the presence or absence of heteroscedasticity is testing using a Scatter Plot.

In the Scatter Plot graph, if heteroscedasticity does not occur, it will show an irregular pattern, and the dots spread above and below the number 0 on the Y axis, whereas if there is heteroscedasticity, the Scatter Plot graph will show dots that have a regular pattern, such as wavy or narrowing. The results of the heteroscedasticity test can be seen in the following graph.

1.3.2 Hypothesis test

Ghozali (2018) statistical t test basically shows how far the influence of one independent variable used in research individually explains the variation of the dependent variable.

Table 5. T test results - test model 1

Coefficients [a]						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	std. Error	Betas		
1	(Constant)	4676.286	2402022		1947	054
	NPM	42,086	4,023	.687	10,462	.000
	DER	1041280	101,275	.687	10,282	.000
	INFLATION	355,973	128,356	.192	2,773	006
	EXCHANGE RATE	-.401	.157	-.172	-2,554	012

a. Dependent Variable: PRICE_SAHAM

Source: Processed primary data, 2023

1. Net profit margin (X1) has a t value of 10,462 and a significance value of 0.000 at an alpha coefficient of 5%. Because the significance value is <0.05, this means that the net profit margin has a positive and significant effect on stock prices, so the hypothesis is accepted .
2. The debt to equity ratio (X2) has a t value of 10,282 and a significance value of 0.000 at an alpha coefficient of 5%. Because the significance value < 0.05, this means that the debt to equity ratio has a positive and significant effect on stock prices, so the hypothesis is accepted .
3. Inflation (X3) has a t value of 2,773 and a significance value of 0.00 6 at an alpha coefficient of 5%. Because the significance value is <0.05, this means that inflation has a positive and significant effect on stock prices, so the hypothesis is accepted .
4. Exchange Rate (X4) has a t value of -2,554 and a significance value of 0.012 at an alpha coefficient of 5%. Because the significance value is < 0.05, this means that the exchange rate has a significant negative effect on stock prices , so the hypothesis is rejected .

Table 6. T test results – model 2 test

Coefficients ᵃ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	std. Error	Betas		
1	(Constant)	93,951	328,107		.286	.775
	NPM	.017	.725	001	024	.981
	DER	-3,566	18.110	-.011	-.197	.844
	INFLATION	29,021	17,771	.074	1633	.105
	EXCHANGE RATE	-.016	022	-.032	-.732	.465
	STOCK PRICE	.189	011	.889	16,500	.000

a. Dependent Variable: RETURN_SAHAM
Source: Processed primary data, 2023

1. Net profit margin (X1) has a t value of 0.024 and a significance value of 0.981 at an alpha coefficient of 5%. Because the significance value is > 0.05, this means that the net profit margin has a positive but not significant effect on stock returns, so the hypothesis is accepted .
2. The debt to equity ratio (X2) has a t value of -0.197 and a significance value of 0.844 at an alpha coefficient of 5%. Because the significance value is > 0.05, this means that the debt to equity ratio has a negative but not significant effect on stock returns, so the hypothesis is rejected .
3. Inflation (X3) has a t value of 1.633 and a significance value of 0.105 at an alpha coefficient of 5%. Because the significance value is > 0.05, this means that inflation has a positive but not significant effect on stock returns, so the hypothesis is rejected .
4. Exchange Rate (X4) has a t value of -0.732 and a significance value of 0.465 at an alpha coefficient of 5%. Because the significance value is > 0.05, this means that inflation has a negative but not significant effect on stock returns, so the hypothesis is rejected .
5. Stock Price (Z) has a t-value of 16,500 and a significance value of 0.000 at an alpha coefficient of 5%. Because the significance value is < 0.05, this means that stock prices have a significant positive effect on stock returns , so the hypothesis is accepted .

1.4   Findings and Interpretation
1.   The Effect of NPM on Stock Returns
        The results of this study indicate that the telecommunications industry has characteristics that influence the relationship between NPM and stock returns. For example, a high level of competition or regulatory changes in an industry can affect a company's overall performance, including stock returns. In such a situation, these external factors may be more dominant than the NPM in influencing stock returns.
        Telecommunications companies face significant capital expenditures to expand infrastructure or take on new technologies. This capital expenditure can reduce net income and reduce NPM. However, this investment is considered as a long-term effort that will increase the growth and value of the company in the future, which in turn can positively affect stock returns. The results of this study are in line with research conducted byReymon Nirwana et al., (2022) and Fathihani (2020)that NPM has no significant effect on stock returns.

2. Effect of DER on Stock Returns

The results of this study indicate that telecommunications companies have a sound and balanced capital structure, in which the proportion of debt and equity has been regulated wisely. If the DER is within a healthy range, changes in this ratio will not have a significant impact on stock returns. Companies with good capital structure focus more on other factors that have a direct impact on company performance and value.

If telecommunications companies have good financial sustainability and are able to meet their financial obligations easily, DER will not be the main factor affecting stock returns. Companies that have stable and sufficient cash flows can overcome their financial burdens without experiencing difficulties, so that the relationship between DER and stock returns is not significant.

This research is in line with the research of Nur et al., (2018) this research explains that the debt to equity ratio variable has no significant effect on stock returns. However, this research is not in line with research conducted by Sitohang et al., (2019) explaining that the variable debt to equity ratio has a significant positive effect on stock returns.

3. Effect of Inflation on Stock Returns

This research indicates that the telecommunications business, especially in sectors related to infrastructure and core services, tends to have a defensive nature and high income stability. Demand for telecommunications services generally remains high despite inflation. This can reduce the direct impact of inflation on the company's financial performance, including stock returns.

Telecommunications service rates are often set by regulatory authorities. In inflationary situations, price regulations are frequently updated to maintain consumer purchasing power. This arrangement can help telecommunications companies to adjust prices and maintain their profit margins, so that the impact of inflation on stock returns can be minimized.

This research is in line with research conducted by Novriyani (2021), and A'iniyah et al., (2021) get the result that inflation has no significant effect on stock returns.

4. Effect of Exchange Rates on Stock Returns

The results of this study indicate that telecommunications companies in Indonesia tend to focus more on the domestic market than the international market. Therefore, the impact of changes in exchange rates on company profits is insignificant because most of the company's revenues and costs remain in local currency. If the company has limited exposure to foreign currency, the impact of changes in exchange rates on stock returns will also be limited.

This finding is in line with research Suriyani et al., (2018) which states that the money supply has no significant effect on stock returns on the Jakarta Composite Index (IHSG). And this is not in line with research Novriyani (2021)which states that the money supply has a significant positive effect on large capitalization stock returns on the Indonesia Stock Exchange.

5. Effect of Stock Prices on Stock Returns

Telecommunications companies have different dividend policies. Dividend distribution to shareholders can directly affect stock returns. If a telecommunications company has an aggressive dividend policy, in which a large portion of profits is allocated for dividend payments to shareholders, then stock returns can be more affected by dividend distribution than stock price movements.

The telecommunications company's financial management is responsible for managing the financial risks faced by the company. They use financial instruments such as derivatives to protect companies from fluctuations in stock prices or currency risks. In this case, companies can reduce the effect of stock price movements on stock returns through appropriate financial risk management strategies.

The results of this study support the research conductedA'iniyah et al., (2021) states that stock prices have a positive and significant effect on stock returns. And not in line with previous research that is Yusra (2019)which states that stock prices have no effect on stock returns .

6. The Effect of NPM on Stock Prices

The direct path coefficient value of NPM (X1) to the stock price (Z) is 0.687 and is significant at 0.000, which means that **hypothesis 6** can be **accepted** because the path coefficient value is positive (42, 086) and the significance value is less than 0.05 (0.000 <0.05), this means that there is a positive and significant effect of NPM (X1) on stock prices (Z) in telecommunication services.

A high NPM indicates that a telecommunications company has a good ability to generate net profit from its operating income. This shows that the company is efficient in managing operational costs and is able to generate significant profits. Strong financial performance like this can increase investor confidence and drive up

stock prices. The results of this study are also supported by the results of research that has been conducted Abdul Aziz (2022) which states that net profit margin has a significant positive effect on stock prices.

7.   Effect of DER on Stock Prices

Based on the value of the beta coefficient which is positive, it indicates that a company with a small debt to equity ratio is not necessarily better than a company with a high debt to equity ratio. Because debt is also needed by companies, companies that do not have debt can lose opportunities to grow. To support the development of the company, of course, requires a sizable working capital that cannot be financed from the profits generated by the company. Despite having a high debt ratio, companies that are growing and very aggressive are generally in demand by many investors. This of course will encourage high demand for shares so that share prices will increase. This statement is supported by research conducted by Wibowo et al., (2018), Tarsono (2021)and Pangiuk et al., (2022)states that the debt to equity ratio has a positive and significant effect on stock prices. While research conducted by Nugraha et al., (2022)states that the debt to equity ratio has a negative and significant effect on stock prices.

8.   Effect of Inflation on Stock Prices

The inflation variable has a significant effect because its significance value is smaller than the degree of error. It can be concluded that inflation has a positive effect on stock prices. This is because telecommunications companies that experience strong business growth and are able to increase their revenues and profits can demonstrate resistance to inflation. Positive operational performance can attract investors and push up stock prices, even though high inflation is still being faced.

The telecommunication company's financial management has the right price policy in the face of inflation. They can periodically adjust the price of telecommunication services to offset the increase in production costs due to inflation. If the company is able to maintain healthy profit margins and stay competitive amid inflation, it could provide a boost to share prices. It can be said that inflation has a positive influence on stock prices. This statement is in line with research conducted by Amata et al., (2016)and Jefry et al., (2020)states that inflation has a positive and significant effect on stock prices.

**9.   Effect of Exchange Rates on Stock Prices**

Based on partial testing, it shows that the Rupiah exchange rate against the US Dollar has a significant negative effect on stock prices. Based on research, it indicates that a weakening of the exchange rate can lead to an increase in telecommunications companies' import costs for equipment, technology, or raw materials needed in their operations. If companies have to pay more in local currency to buy imported products, this can reduce the company's profitability and reduce profit margins. A decrease in profitability can make investors less interested in buying a company's stock, thus affecting the stock price negatively. The results of this study are in line with Suharyanto et al., (2021)those which reveal that the exchange rate has a negative and significant effect on stock prices. This is not in line with research conducted by Jefry et al., (2020)which revealed that the exchange rate has a positive and significant effect on stock prices.

10.   The Effect of NPM on Stock Returns Through Stock Prices

The regression results table shows that the NPM regression coefficient on stock prices is 42.086 with a standard error of 4.023 and a significance value of 0.000 then for stock prices a coefficient value of 0.189 with a standard error of 0.011 and a significance value of 0.000. So that significant NPM has a direct effect on stock prices as well as significant stock prices have a direct effect on stock returns. If described, a model will be formed:

Figure 5. Results of the NPM Model on Stock Returns Through Stock Prices
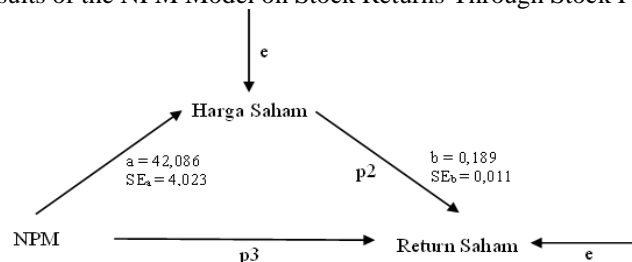
From the calculation results, a z value of 8.9354 is obtained, because the z value obtained is 8.9354 > 1.65550 with a significance level of 0.00 which is less than 0.05, thus proving that stock prices are able to mediate the relationship between the effect of NPM on stock returns and hypothesis 10 can be accepted.

The results of this study indicate that a high NPM can indicate a company has sufficient resources to pay dividends to shareholders. Consistent and attractive dividends can make telecommunications company stock more attractive to investors, which can increase the demand for and increase the price of the stock.

11. The Effect of DER on Stock Returns Through Stock Prices

The regression results table shows that the DER regression coefficient on stock prices is 1041,280 with a standard error of 101,275 and a significance value of 0,000 then for stock prices a coefficient value of 0.189 with a standard error of 0,011 and a significance value of 0,000. So that DER has a significant direct effect on stock prices as well as significant stock prices have a direct effect on stock returns. If described, a model will be formed:

Figure 6. Results of the DER Model on Stock Returns Through Stock Prices
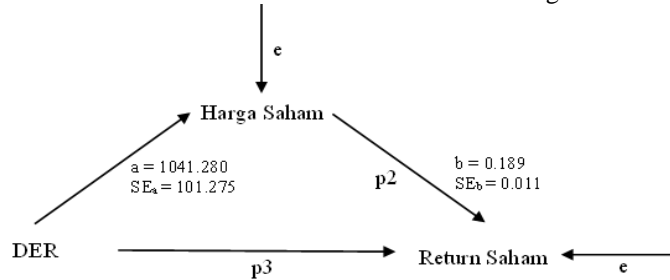
From the results of the Sobel test calculation above, we get a z value of 8.8226, because the z value obtained is 8.8226 > 1.65550 with a significance level of 0.00 which is less than 0.05, thus proving that stock prices are able to mediate the relationship between the effect of DER on stock returns and hypothesis 11 can be accepted.

The results of this study indicate that in some cases, a high DER may reflect growth-oriented corporate financial policies. Telecommunication companies with high DER actively disclose information to the market about the projects they are currently running or potential acquisitions that can increase the value of the company. This information can affect investors' perceptions and result in an increase in stock prices so that stock returns will increase.

12. The Effect of Inflation on Stock Returns Through Stock Prices

The regression results table shows that the inflation regression coefficient on stock prices is 355,973 with a standard error of 128,356 and a significance value of 0.006 then for stock prices a coefficient value of 0.189 with a standard error of 0.011 and a significance value of 0.000. So that significant inflation has a direct effect on stock prices as well as significant stock prices have a direct effect on stock returns. If described, a model will be formed:

Figure 7. Results of the Inflation Model on Stock Returns Through Stock Prices
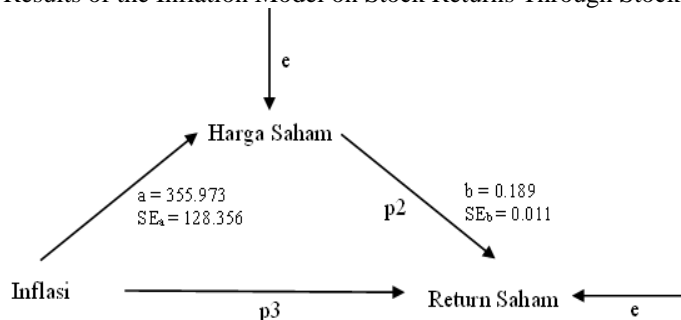
From the calculation results of the Sobel test, a z value of 2.73788 is obtained, because the z value obtained is 2.73788 > 1.65550 with a significance level of 0.006 which is less than 0.05, thus proving that stock prices are able to mediate the relationship between the effect of inflation on stock returns and hypothesis 12 can be accepted.

The results of this study indicate that telecommunications companies can be a real hedge against inflation. This occurs when telecommunications companies can increase the prices of their products or services in line with the rate of inflation. In this situation, investors may view telecommunications company stocks as assets that can protect them from inflationary erosion. Stable demand and inflation-adjusted prices can provide

positive support to stock prices. Some telecommunications companies can have stable and diversified revenue streams. For example, revenue from telecommunications subscriptions such as telephone or internet services can remain stable along with inflation. This can give investors confidence that the company's earnings are not too affected by changes in inflation and support higher stock prices so that stock returns will increase.

13.   The Effect of Exchange Rates on Stock Returns Through Stock Prices
        The regression results table shows that the regression coefficient value of the exchange rate on stock prices is -0.401 with a standard error of 0.157 and a significance value of 0.012 then for stock prices a coefficient value of 0.189 is obtained with a standard error of 0.011 and a significance value of 0.000. So that the exchange rate has a significant direct effect on stock prices as well as significant stock prices have a direct effect on stock returns. If it is described, a model will be formed.

Figure 8. Results of the Exchange Rate Model on Stock Returns Through Stock Prices
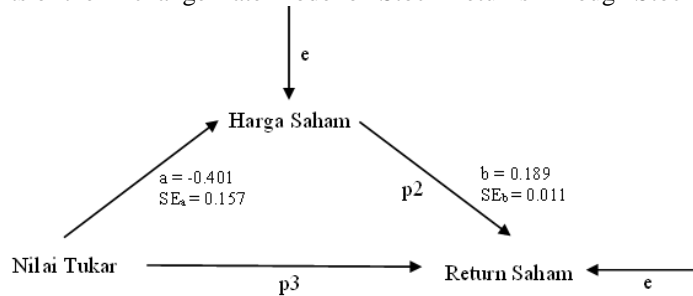
        From the results of the Sobel test calculation, a z value of -2.5264 is obtained, because the z value obtained is -2.5264 with a significance level of 0.012 which is less than 0.05, thus proving that stock prices are able to mediate the relationship between the effect of exchange rates on stock returns and **hypothesis 13** can be **accepted**.
        The results of this study indicate that Indonesian telecommunications companies that have exposure to international markets or have links with foreign currencies through imports or exports of goods and services may be affected by changes in exchange rates. If the exchange rate of the local currency against foreign currencies decreases, telecommunications companies may experience increased import costs or decreased export revenues. This can have a negative impact on the company's financial performance and reduce stock returns. Share prices reflect market expectations of the impact of exchange rate changes on company performance.

14.   The Influence of NPM, DER, Inflation, and Exchange Rates on Stock Returns Through Stock Prices
        The magnitude of the direct effect (p2) is $0.001 + -0.011 + 0.074 + -0.032 = 0.032$, while the magnitude of the indirect effect must be calculated by multiplying the indirect coefficient, namely p1 x p3 = $(0.687 + 0.687 + 0.192 + -0.172) \times 0.032 = 1.394 \times 0.032 = 0.045$. The mediating effect shown by the multiplication coefficient (p1 x p3) of 0.045 is significant or not, tested by the Sobel test by calculating the standard error of the indirect effect coefficient (Sp1p3).

$$Sp1p3 = \sqrt{p3^2 Sp1^2 + p1^2 Sp3^2 + Sp1^2 Sp3^2}$$

$$Sp1p3 = \sqrt{(0,032)^2(233,811)^2 + (1,394)^2(36,639)^2 + (233,811)^2(36,639)^2}$$

$$Sp1p3 = \sqrt{(0,001)(54.667,58) + (1,943)(1.342,42) + (54.667,58)(1.342,42)}$$

$$Sp1p3 = \sqrt{54,67 + 2.608,32 + 21938792,98}$$

$$Sp1p3 = \sqrt{73.386.852,74}$$

$$Sp1p3 = 8,566.61$$

        Based on the results of this Sp2p3 we can calculate the statistical t value, mediating effect with the following formula:

$$t = \frac{p1p3}{Sp1p3} = \frac{0,045}{8.566,61} = 5.2529$$

Because the value of t count is 5.2529 greater than t table with a significance level of 0.05 which is equal to 1.65597, it can be concluded that the mediation coefficient is 0.032 significant which means there is a mediation effect and hypothesis 14 can be **accepted**.

The results of this study indicate that stock prices reflect market information and expectations of the company's performance and prospects. Investors and other market participants analyze factors such as NPM, DER, inflation, and exchange rates to assess a company's intrinsic value and potential return on investment. If there is a significant influence of these factors on stock returns, then this information is reflected in stock prices. Stock prices are an aggregate indicator that takes into account the impact of these variables on stock returns.

BIBLIOGRAPHY

[1].   Abdul Aziz, P. (2022). The Effect of Net Profit Margin (NPM), Return On Equity (ROE) and Earning Per Share (EPS) on Stock Prices in Food and Beverage Sub- Sector Manufacturing Companies Listed on the Indonesia Stock Exchange for the 2016-2021 Period. *Journal of Management Studies* , *2* (4), 428–435. Retrieved from https://journal.trunojoyo.ac.id/jkim
[2].   Abdullah, YES, Kusmayadi, D., Rahman, R., & Abdullah, Y. (2018). *Analysis of the effect of net profit margin, price to book value, and debt to equity ratio on stock return* . Doi: 10.24327/ijrsr.2018.0907.2392
[3].   A'iniyah, RQ, & Taufiqurrahman, E. (2021). The Influence of Macroeconomic Indicators, Financial Performance and Stock Prices on Stock Returns: A Study of Idx30 Manufacturing Companies in Bei 2015-2019. *Derivatives: Journal of Management* , *15* (2), 192–202.
[4].   Amata, E., Muturi, W., & Mbewa, M. (2016). The causal relationship between inflation, interest rate and stock market volatility in Kenya. *European Journal of Business, Economics and Accountancy* , *4* (5), 10–23.
[5].   Arfianty, A., Fatimah, F., & Maulidya, S. (2021). The Effect of Inflation and Currency Exchange Rates on the Stock Price of Cigarette Sub-Sector on the Indonesia Stock Exchange. *UNEJ E-Proceedings* , 12–15.
[6].   Origin, M. (2019). Analysis of interest rates. Inflation rate, and exchange rate on stock price volatility and trading volume: evidence from Indonesia stock exchange. *Journal of Management Update* , *8* (4).
[7].   Atmowardoyo, H. (2018). Research Methods in TEFL Studies: Descriptive Research, Case Study, Error Analysis, and R & D. *Journal of Language Teaching and Research* , *9* (1), 197–204. doi: 10.17507/jltr.0901.25
[8].   Brigham, EF, & Houston, JF (2009). *Fundamentals of Financial Management* (12th ed.). Florida: Cengage South-Western. Retrieved from https://books.google.co.id/books?id=rx4kPwAACAAJ
[9].   Budiyono, B., & Santoso, SB (2019). The Effects Of Eps, Roe, Per, Npm, And Der On The Share Price In The Jakarta Islamic Index Group In The 2014-2017 Period. *Journal of Business Management* , *10* (2). doi: 10.18196/mb.10177
[10].   Din, WU (2017). Stock return predictability with financial ratios: Evidence from PSX 100 index companies. *Available at SSRN 3077890* , 1–15.
[11].   Djamaluddin, S., & Resiana, J. (2018). Analysis of the Effect of Npm, Der and Per On Return Share of Listed Company in Jakarta Islamic Index (Jii) Period 2011 -2015. *International Journal of Business and Management Invention (IJBMI) ISSN* , 58–66. Retrieved from www.ijbmi.org58|
[12].   Ely Siswanto. (2021). *Textbook of Basic Financial Management* (1st ed.). Malang: State University of Malang.
[13].   Fathihani. (2020). *Effect of npm, eps, roe, and pbv on stock prices* . *1* (6). Doi: 10.31933/dijms
[14].   Hair, JF, Hult, GTM, Ringle, CM, Sarstedt, M., Danks, NP, & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R* . Cham: Springer International Publishing. doi: 10.1007/978-3-030-80519-7
[15].   Herawati, A., & Putra, AS (2018). The influence of fundamental analysis on stock prices: The case of food and beverage industries. *European Research Studies* , *21* (3), 316–326.
[16].   Jeffry, J., & Djazuli, A. (2020). The Effect of Inflation, Interest Rates and Exchange Rates on Stock Prices of Manufacturing Companies in Basic and Chemical Industrial Sectors on the Indonesia Stock Exchange (IDX). *International Journal of Business, Management and Economics* , *1* (1), 34–49.
[17].   Lacinka, A., Fathoni, A., & Gagah, E. (2018). Analyze Effect Of Debt to Equity Ratio, Net Profit Margin, And Earning Per Share To The Company's Stock Prices LQ45 Listed On The Indonesia Stock Exchange Year 2012-2015. *Journal of Management* , *4* (4).
[18].   Marito, BC, & Sjarif, AD (2020). The impact of the current ratio, debt to equity ratio, return on assets, dividend yield, and market capitalization on stock returns (Evidence from listed manufacturing companies in Indonesia stock exchange). *Social Sciences and Economics* , *7* (1), 10–16.
[19].   Mokhova, N., & Zinecker, M. (2014). Macroeconomic Factors and Corporate Capital Structure. *Procedia - Social and Behavioral Sciences* , *110* , 530–540. doi: 10.1016/j.sbspro.2013.12.897
[20].   Novriyani, N. (2021). Inflation And Interest Rate With Exchange As Intervening Variables: On Stock Return: Inflation, Interest Rate, Stock Return and Exchange Rate. *Journal of Management and Business* , *10* (2), 68–79.
[21].   Nugraha, KC, & Artini, LGS (2022). The Effect of Financial Performance on Stock Prices of Automotive and Component Sub Sector Companies in the Indonesia Stock Exchange. *European Journal of Business and Management Research* , *7* (4), 327–331. doi: 10.24018/ejbmr.2022.7.4.1595
[22].   Palmgren, E., & Nanakorn, N. (2019). The Impact of Macroeconomic Variables on Stock Return in Different Industries-A Multiple Linear Regression. *KTH Royal Institute of Technology* , 1–48. Retrieved from www.kth.se/sci
[23].   Pangiuk, A., & Sultan Thaha Saifuddin Jambi, U. (2022). Determinant of Financial Ratios on Stock Price in Multi-Industrial Sector Manufacturing Companies Listed in The Sharia Indonesia Stock Index 2016-2020. *Iltizam Journal of Shariah Economic Research* , *6* (1), 59–75. Retrieved from www.ojk.co.id
[24].   Prijanto, B., Pulung, RF, & Sari, AR (2021). *The Influence of Net Profit Margin On Stock Price with Earnings Per Share (Eps) As Moderating Variables: The Case Study On Food and Beverage Sub Sector Companies Listed On the Indonesia Stock Exchange from 2015 to 2019* . doi: 10.32996/jefas
[25].   Pujawati, PE, Wiksuana, IGB, & Artini, LGS (2015). Effect of the Rupiah Exchange Rate on Stock Returns with Profitability as an Intervening Variable. *E-Journal of Economics and Business, Udayana University* , *4* (4), 220–242.
[26].   Putong, I. (2013). Introductory micro and macro economics. *Jakarta: Media Discourse Partners* , *48* .
[27].   Qotrunnada, EA, Indarti, I., & Aditya, EM (2021). The Effect of Exchange Rates, Net Profit Margins, Return on Assets, and Inflation on Stock Returns. *Management and Accounting Expose* , *4* (1), 55–63.
[28].   Retnawati, H. (2017). Path Analysis, Confirmatory Factor Analysis and Structural Equation Modeling. *Workshop on Data Analysis Techniques* , *19* , 1–19.

[29]. Reymon Nirwana, A., Jhoansyah, D., Sunarya, E., & Sukabumi, UM (2022). *The Effect Of Return On Assets (Roa), Net Profit Margin (Npm), Earning Pershare (Eps) And Total Assets Turn Over (Tato) On Stock Return In The Manufacturing Sector Listed On The Indonesia Stock Exchange For 2016-2020* .

[30]. RM Ginting, TSSM (2016). The Influence of Interest Rates, Exchange Rates and Inflation on Stock Prices (Study of the Banking Sub-Sector on the Indonesia Stock Exchange Period 2011-2015). *Journal of Business Administration (JAB)|Vol* , *35* (2), 77–85. Retrieved from www.bi.go.id

[31]. Saputra, IGA, & Dharmadiaksa, IB (2016). The Effect of Interest Rates, Rupiah Exchange Rates, Leverage and Profitability on Stock Returns. *Udayana University Accounting E-Journal* , *16* (45), 1007–1033.

[32]. Setiyanti, SW (2016). Effect of stock liquidity and stock prices on stock returns of gold commodity investment companies listed on the Jakarta Stock Exchange (JSX). *Bengawan Earth Pulpit Journal* , *8* (17).

[33]. Suharyanto, S., & Zaki, A. (2021). The effect of inflation, interest rate, and exchange rate on stock returns in food & beverage companies. *Journal of Management Applications* , *19* (3), 616–622. doi: DOI: http://dx.doi.org/10.21776/ub.jam.2021.019.03.14

[34]. Suriyani, NK, & Sudiartha, GM (2018). The influence of interest rates, inflation and exchange rates on stock returns on the Indonesian stock exchange. *Unud Management E-Journal* , *7* (6), 3172–3200. doi: 10.24843/ EJMUNUD.2018.v 7.i06.p12

[35]. Suryana, N., & Anggadini, D. (2020). Analysis of Stock Prices Affected by Current Ratio. *International Journal Of Science* , 190–197. Retrieved from http://ijstm.inarah.co.id

[36]. Tarsono, O. (2021). The effect of debt equity ratio, return on equity, net profit margin on stock prices. *International Journal of Social Science* , *1* (4), 393–398.

[37]. Utami, WR, Hartoyo, S., & Maulana, TNA (2015). The Effect of internal and external factors on stock Return: empirical evidence from the Indonesian construction subsector. *Asian Journal of Business and Management* , *3* (5), 370–377.

[38]. Wibowo, DA, & Saragih, SB (2018). Effect of Debt to Equity Ratio, Current Ratio and Inflation on Share Price on Real Estate Companies Listed in Indonesia Stock Exchange. *The International Journal Of Business & Management* , *6* (11), 61–67.

[39]. Yudha, K., Sri, H., & Ahmad, MTN (2019). The impact of financial performance and macroeconomics on the stock returns of the company in the construction and building subsectors. *Russian Journal of Agricultural and Socio-Economic Sciences* , *86* (2), 253–257. doi: DOI10.18551/rjoas.2019-02.31

[40]. Yusra, M. (2019). The Effect of Trading Frequency, Trading Volume, Market Capitalization Value, Stock Prices, and Trading Day on Stock Returns in Cosmetic and Household Use Companies on the Indonesia Stock Exchange. *Journal of Accounting And Finance* , *7* (1), 65–74.