The Effect Of Profitability On Stock Price In Pharmaceutical Sub-Sector Companies Listed On The Indonesia Stock Exchange (Idx) Period 2017 – 2021

Patma Aulia Aryani [1], Diah Yudhawati [2], Asti Marlina [3]

[1,2,3] Bogor Ibn Khaldun University, Indonesia

E-mail: patmaauliaaryani08@gmail.com[1]

Abstract

The pharmaceutical industry is one of the industries that is quite in demand to conduct investment activities throughout the Covid-19 pandemic. This is due to the increasing demand and public need for health products. In analyzing stocks, there are 2 basic approaches, namely technical analysis and fundamental analysis. Investors frequently use fundamental analysis to evaluate a a company's performance can be determined by scrutinising its financial statements. The financial ratios of the company reflect the company's financial performance. This study aims to ascertain the effect of profitability on the stock prices of pharmaceutical companies listed on the IDX between 2017 and 2021. This study employs quantitative data categories derived from secondary sources such as literature studies, published company financial statements, and published literature. Using a technique of sampling known as purposive sampling, this study's population data were collected was obtained by five pharmaceutical companies from pharmaceutical companies registered on the IDX. Pharmaceutical company stock prices are substantially influenced by Return On Asset (ROA) and Earnings Per Share (EPS) between 2017 and 2021, according to this study.

Keywords: Pharmaceutical companies, Return On Assets (ROA), Earning Per Share (EPS), and stock prices.

Introduction

Investments are commitments made to a number of funds or other resources with the intention of making as much money as feasible in the future (Tandelilin, 2010:2).Investing in the capital market is an option that is of interest to investors. The capital market itself is a meeting between sellers (issuers) and buyers (investors) who make transactions to obtain capital. The Indonesia Stock Exchange (IDX) has a very important role, namely as a means for investing and for companies going public as a means of obtaining additional capital by acquiring shares as a sign of ownership.

Investors in their investment activities tend to look at two factors, namely the risk factor and the stock return factor. In addition to looking at the risk and return factors, investors in investing will also collect information related to the value of stock prices and company performance. The

fluctuation of stock prices is contingent upon the dynamics of demand and supply within the stock market. When conducting stock analysis, two primary methodologies are commonly employed: technical analysis and fundamental analysis. The financial performance of a corporation can be assessed through the utilisation of financial reports, enabling the measurement of a variety of indicators, such as solvency ratios, liquidity ratios, activity ratios, and profitability ratios. The evaluation of the company's performance by investors will involve an examination based on the financial statements of the company.

During the onset of the Covid-19 epidemic, Indonesia's economy was undergoing a deceleration. As a consequence, the Composite Stock Price Index (IHSG) saw a decline in the capital market, commencing from its initial level of 5,498.54 and reaching a position of 4,907.57 (Tambunan, 2020). The pharmaceutical industry has become one of the industries that attracted a lot of interest from investors during the pandemic due to the increasing demand and public need for health products such as vitamins, supplements and other immune-boosting drugs.

Based on the aforementioned description, the authors express their interest in undertaking a research study titled "Examining the Impact of Profitability on Stock Prices in Pharmaceutical Sub-Sector Companies Listed on the Indonesia Stock Exchange (IDX) during the Period of 2017 - 2021."

Research methods

Types of Research Data

The present study utilises quantitative data, namely numeric data that may be computed, derived from the financial statements of IDX-listed companies between 2017 and 2021.

Research Data Sources

This study utilised secondary data sources, including data gathered from the official website of the IDX, literature research, and published journals or financial reports.

Data collection technique

These are the data collection methodologies used for this study:

1. Documentation study

  Namely using data obtained from published company financial reports.

2. Literature Study

  Namely by collecting data using materials such as books and notes originating from research earlier.

Population

According to Sugiyono (2017:136) the population refers to the entire set of elements that will be utilised as a basis for generalisation. This study utilised data pertaining to the population of Pharmaceutical sector firms listed on the IDX during the time span covered by this study from 2017 to 2021.

Sample

According to Sugiyono (2017:137) the sample reflects the quantity and characteristics of the population. This researcher employs a method of purposive sampling by establishing specific criteria and standards.

Then the sample for this research must have the following characteristics:

1. Businesses pharmaceutical companies that were listed on the IDX between 2017 and 2021.

2. Businesses in the pharmaceutical industry's subsector that consistently updated their financial reports between 2017 and 2021.

3. During the observation method, the sampled company's financial statements have a beneficial impact on stock prices.

Data analysis method

Data analysis is a method of analyzing data that aims to process data in order to answer statements from questions. SPSS software is used in this study to perform calculations and analyze data in this study.

Classic assumption test

The Normality Test, Heteroscedasticity Test, Multicollinearity Test, and Autocorrelation Test are just a few of the techniques that can be used to evaluate the conventional assumptions.

Simple Linear Regression Test

A relationship between an independent variable (X) and a dependent variable (Y) that is linear can be examined using simple linear regression. Its primary functions are (1) predicting whether the value of the dependent variable will increase or decrease in the future, and (2) establishing the nature of the link between the independent and dependent variables.

$Y = a + bX$

Information :

      Y = dependent variable

      X = independent variable / independent

      a = Constant (Y value if X=0)

      b = Regression coefficient

Multiple Linear Regression Test

Researchers employ multiple linear regression analysis as their method of analysis. The formula used is as follows:

$$Y = a + \beta_1 X_1 + \beta_3 X_2$$

Information :

  Y = Stock price

  a = Constant

  B_1 = ROA variable regression coefficient

  B_2 = NPM variable regression coefficient

Correlation coefficient

The correlation coefficient quantifies the intensity of the relationship between two variables (in this case, X and Y). Using the following formula, the correlation coefficient can be calculated:

$$r_{xy} \frac{n \sum XY - (\sum X) - (\sum Y)}{\sqrt{(n\sum X^2 - (\sum X)^2 . (n \sum Y^2 - (\sum Y)^2)}}$$

Information :

r = Correlation coefficient

n = The number of sample data studied

Coefficient of Determination (R2)

By calculating the coefficient of determination (R2), one can determine how much variation in the dependent variable (Y) is attributable to changes in the independent variable (X). 0 to 1 is the range for the coefficient of determination. A low R2 indicates that the independent variables do not adequately explain the data. If the R-squared value is close to one, it indicates that nearly all of The independent variables provide the necessary information for predicting the variance of the dependent variable.

$$KP = r2 \times 100\%$$

Source: Damanik, 2019)

Hypothesis test

Hypothesis testing, a crucial statistical technique, This study examines the relationship between the explanatory and outcome variables. C The test can be given in two ways: either as a split-half (t-test) or a combined (F-test).

a. Partial Test (t test)

To determine the connection between independent and dependent variables, a partial test is conducted. The evel of significance is 5%.

b. Simultaneous Test

The statistical test f is employed to assess the viability of the data. The decision rule employed in the f test utilises a significance level of 5%.
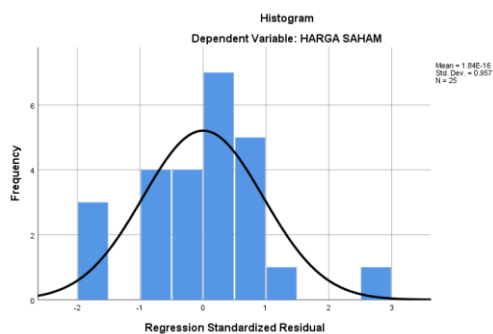
Research Results and Discussion

Classic assumption test

Normality test

In order to confirm the normality of the data, statistical tests such as the histogram graph test, p-plot graph test, and Using a significance level of 0.05, the Kolmogorov-Smirnov test is employed.
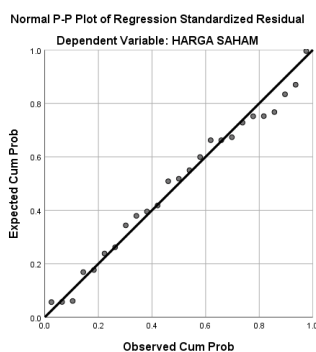
Figure 1 Histogram Graph

Histogram
Dependent Variable: HARGA SAHAM

Source : SPSS 28.0 (Processed Data)

Based on the graph, the test results look symmetrical and do not appear to be skewed to the left or right. It can be seen that the contour of the curve is nearly flawless, so the regression model has a normal distribution pattern.

Figure 2 Normal PP Plot

Source : SPSS 28.0 (Processed Data)

It can be concluded from the image above that the data distribution points tend to follow the diagonal. This regression therefore conforms to the assumption of normality.

Table 1 Kolmogorov-Smirnov Test		
One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residuals
N		25
Normal Parameters, b	Means	.0000000
	std. Deviation	866.02788254
Most Extreme Differences	absolute	.103
	Positive	.103

	Negative	-.069
Test Statistics		.103
asymp. Sig. (2-tailed)		.200c,d

According to the Kolmogorov-Smirnov criteria, normal data exist when the Asymp. Significance (2-tailed) is greater than 0.05. Moreover, if the Asymp. Sig. (2-tailed) 0.05 indicates that the data are not normally distributed.

Based on the fact that the Asymp. Sig is 0.200c and d> 0.05, Normality can be inferred from the data.

**Multicollinearity Test**

Table 2 Multicollinearity Test Analysis

Model	Collinearity Statistics	
	tolerance	VIF
(Constant)		
ROA (X1)	.230	4,346
NPM (X2)	.230	4,346

Based on the table above, the VIF results from SPSS 28.0 show that all independent variables (ROA and NPM) have tolerance values > 0.10 and VIF values < 10. Therefore the two variables do not occur multicollinearity.

Heteroscedasticity Test

Figure 3 Scatterplot Graph
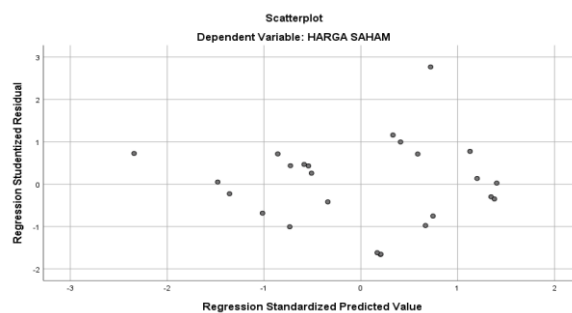
The visual representation provided illustrates that the data points exhibit a random distribution, with considerable dispersion both above and below the Y-axis zero point. Based on the analysis, it is possible to conclude that the employed regression model contains no heteroscedasticity symptoms.

Autocorrelation Test

Table 3 Durbin Watson

Summary modelb				
Model	R	R Square	Adjusted R Square	std. Error of the Estimate	Durbin-Watson
1	.508a	0.258	0.191	904.53662	1.125

Source : SPSS 28.0 (Processed Data)

Based on the above table, the DW value was determined to be 1.125. When compared to the DW table at a significance level of 5% with the number of data (n) = 25 and the number of independent variables (k) = 2, dL = 1.2063 and dU = 1.5495 were obtained from the table, allowing the values of 4-dL = 2.7937 and 4-dU = 2.4505 to be calculated.

Therefore it can be concluded that the value of dU<DW<4-dU (1.5495<1.125<2.4505) means that there is no autocorrelation.

Correlation Coefficient Analysis & Determination Coefficient Analysis

The purpose of this analysis is to ascertain the magnitude and impact of ROA and NPM on the stock prices of corporations in the pharmaceutical subsector during the period spanning from 2017 to 2021.

Table 4 Model Summary ROA & NPM

R2	R Square
.508a	.258

Source : SPSS 28.0 (Processed Data)

The analysis of the correlation coefficient obtained from the SPSS 28.0 results reveals a correlation value (R2) of 0.508. This value falls within the range of 0.399 to 0.598, indicating a moderate correlation. Specifically, there exists a reasonably strong relationship between ROA (X_1) and NPM (X_2) with respect to stock prices (Y).

The shown table displays a value of 0.258 or 25.8%, falling within the range of 20% - 39.9%. This indicates a weak correlation between ROA (X1) and NPM (X2) in relation to stock prices (Y). The influence of stock prices is determined by the ROA (X1) and NPM (X2), accounting for 25.8% of the total influence. The remaining 74.2% is attributed to other factors.

Regression Analysis

Table 5 Coefficients ROA (X1) & NPM (X2)

Coefficientsa				
Model		Unstandardized Coefficients	Q	Sig.
		B		
1	(Constant)	1883,448	6,353	.000
	ROA	-81,314	-1,896	071
	NPM	30,379	.697	.493

According to the preceding table, the obtained regression value equation is:

Y =1883,448

X1 =-81,314

X2 = 30.379

Consequently, the regression equation can be expressed as follows:

a. Constant Interpretation of1883,448

If ROA (X1) and NPM (X2) are equal to 0, the share price is Rp.1883,448.

b. Direction of Influence and Regression Coefficient

Variable ROA (X1) of-81,314indicates that the effect of ROA on stock prices is negative, which means that for every decrease or increase in ROA of 1 unit, there will be an increase or decrease in the stock price of Rp.81,314.

Variable NPM (X2) of30,379indicates that the effect of NPM on stock prices is positive, which means that every decrease or increase in NPM by 1 unit, there will be a decrease or increase in share price of Rp.30,379.

Simultaneous Hypothesis Test

Table 6 Simultaneous ROA (X1) & NPM (X2)

Against Stock Price (Y)

ANOVAᵃ				
Model		Df	F	Sig.
1	Regression	2	3,831	.037b
	Residual	22		
	Total	24		

Based on SPSS 28.0 calculations, it is evident from table 20 that Ha is accepted and Ho is rejected, since the value of fcount = 3.831 > ftable = 3.44 with a significance of 0.037 0.05 indicates that Ha is accepted and Ho is rejected. As a result, stock prices (Y) are significantly impacted by both NPM (X2) and ROA (X1).

Conclusion

From the above discussion, it can be deduced that: 1) Based on the partial data analysis conducted, it has been shown that the variables ROA (X_1) and NPM (X_2) exhibit a notable impact on stock prices (Y). 2) Based on the concurrent data analysis, it has been determined that the variables of ROA (X_1) and NPM (X_2) exhibit a statistically significant impact on stock prices (Y)

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