The Effect Of NPM, ROA And ROE On Stock Prices at Pharmacy Companies Listed On The Indonesian Stock Exchange Period 2018 – 2022

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Abstract. The purpose of this research is to know the effect of Net Profit Margin, Return on Assets and Return on Equity about stock prices at Pharmacy companies listed on the Indonesia Stock Exchange for the period 2018 – 2022. The selection of samples using the Purposive sampling method, so as to obtain a sample of 9 companies. The data Data in the form of secondary data obtained from collecting annual financial reports, general descriptions and developments of pharmaceutical companies listed on the Indonesia Stock Exchange 2018 - 2022 which can be directly accessed on the Indonesia Stock Exchange (BEI) website and company websites. The data analysis technique uses normality test, multicollinearity test, multiple linear regression test, coefficient of determination, t test and F test which are processed with the help of the IBM SPSS Statistics 25 program. The result is that partially the Net Profit Margin (NPM) variable has no significant effect on the share price of pharmaceutical companies listed on the Indonesia Stock Exchange (IDX) for the 2018-2022 period with a sig value $0,080 > 0,05$, while the Return on Assets (ROA) and Return on Equity (ROE) variables partially have a significant effect with a sig value $<0,05$ of $0,032$ and $0,001$. Simultaneously Net Profit Margin (NPM), Return on Assets (ROA) and Return on Equity (ROE) together have a positive and significant effect on stock prices with a sig value of $0,000 <$ from the alpha value of $0,05$ and an Fcount value of $12,589 >$ Ftable $2,83$.

Keywords: Net Profit Margin, Return on Assets, Return On Equity, Stock Price.

1   Introduction

Currently, the capital market for the Indonesian economy shows important developments. Judging from the number of capital market investors, it continues to increase as public awareness of investing is supported by the development of digital technology. Data from the Indonesian Central Securities Depository (KSEI) states that until August 2022 the number of capital market investors reached 9.54 million investors. That number shot up 27.38% compared to December 2021, which amounted to 7.48 million investors.

According to Opi Dwi Dera Astuti (2018) The capital market is a source of economic progress because it can be a source of capital and an alternative for companies besides banks. The share price in the market will reflect the company's performance. The high investor demand for a stock will increase the stock price. However, stock prices are very volatile and changeable, even though investors want their stock prices to always be high and never go down. According to Suad Husnan and Enny Pudjiastuti (2006), basically the stock price is influenced by future profitability and the risks borne by

investors. Therefore, investors need to pay attention to the profitability ratio when making an investment.

Return on Asset (ROA), Return on Equity (ROE) and Net Profit Margin (NPM) are part of a ratio analysis that can be used as a tool to measure financial performance (Ramzan et al., 2021). Return on Asset (ROA) measures how much the company's assets are able to generate profits, Return on Equity (ROE) measures how much the company's capital is able to generate profits and Net Profit Margin (NPM) measures the percentage of net profit in a company to its net sales.

In Indonesia, pharmaceuticals is a promising sector. Although the performance in 2022 was much slower than the previous two years. Based on Badan Pusat Statistik Indonsia, in 2020 and 2021, where the pharmaceutical industry was able to grow up to 8.48% and 9.61%, the pharmaceutical industry still grew better.

This shows how great the market potential is for large pharmaceutical subsector companies in Indonesia to encourage investors to invest in the capital market in the Pharmaceutical Subsector. And with the development of a good Pharmaceutical Sub-Sector in accordance with the report above, it should also have a good impact on investors' assessment of the Pharmaceutical Sub-Sector so that the share price of Pharmaceutical Sub-Sector companies can increase due to the large number of interested investors. The following is an overview of the share price movements of pharmaceutical companies listed on the IDX during 2018 - 2022 in Table 1.

Table 1. the stock price movements of pharmaceutical companies listed on the IDX during 2018 – 2022

Code	Price (Rupiah)				
	2018	**2019**	**2020**	**2021**	**2022**
DVLA	1967	2190	2332	2467	2607
INAF	4149	2870	1922	2735	1288
KAEF	2386	2892	2032	2899	1528
KLBF	1441	1541	1444	1485	1750
MERK	6454	3589	2714	3347	4445
PEHA	2530	1785	1268	1260	949
PYFA	189	183	603	1054	986
SIDO	385	529	667	795	861
TSPC	1528	1581	1290	1496	1417
SOHO	-	-	6738	5254	5969

This study aims to analyze the effect of Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM) both partially and simultaneously on the Share Price of Pharmaceutical companies listed on the IDX. Based on the recommendations of previous researchers, by Opi Dwi Dera Astuti (2018) in The Effect of Return on Assets (Roa), Earning Per Share (Eps), And Net Profit Margin (Npm) On Stock Prices In Food And Beverage Companies Listed On The Indonesia Stock Exchange (Bei) Period 2014-

2017 which provides suggestions for conducting research in sectors other than food and beverages.

The study shows the results that ROA has a significant effect on stock prices indicated by sig t 0,000 < 0,005 and Thitung 3,925 > Ttable 2,00665; EPS has no significant effect on stock prices indicated by sig t 0,192 > 0,05 and Thitung 1,323 < Ttable 2,00665; NPM has no significant effect on stock prices indicated by sig t 0,844 > 0,05 and Thitung of -0,198 < Ttable 2,00665. ROA, EPS and NPM simultaneously have a significant effect on stock prices as evidenced by Fcount 24,011 > Ftable 2,78 and sig F 0,000 < 0,005.

2   Literature Review

2.1   Net Profit Margin

According to Brigham and Houston (2018: 140) Net Profit Margin measures the amount of the company's net profit compared to its sales. The higher the level of sales, the more productive the company is. According to Cashmere (2021: 202) Net Profit Margin is a measure of profit by comparing earnings after interest and taxes compared to sales. This ratio shows the company's net profit on sales.

Based on the theory above, the higher the net profit margin of a company, the better it will be considered. The indicators used in calculating NPM are net profit and total sales, the two indicators are variables in the income statement. Net profit margin is calculated in the following way:

$$NPM = Net\ Income/Sales\ x\ 100\%$$

2.2   Return on Asset

According to Brigham and Houston (2018: 140) return on assets or return value is generated by dividing net income by total assets. The higher the ROA value, the better. Low return on assets (ROA) can occur due to the use of large debt, in which case high interest expense will cause low net income. According to Cashmere (2022: 54) Return on assets is a rate of return on an investment, which means how quickly the assets used to make the investment return. ROA is usually measured by the value of money earned and the length of time it takes to return.

Based on this theory, the greater the ROA of a company, the better the company's financial performance. A high ROA also attracts investors to invest because the company is able to utilize its assets for business. ROA can be determined by the following formula:

$$ROA = Net\ Income/Total\ Assets\ x\ 100\%$$

2.3   Return on Equity

According to Brigham and Houston (2018: 141) Return on Equity is a ratio that measures the rate of return on ordinary shareholder investment. Return on Equity

measures the company's ability to provide returns for shareholders and is defined as dividends in net income on equity ownership. According to Cashmere (2021: 206) Return on Equity is a ratio to measure net profit after pajar with own capital. ROE shows the efficient use of own capital. The higher the value of this ratio, the better, which means that the position of the company owner is getting stronger, and vice versa.

When a company has a good ability to provide returns on share ownership, it will indirectly make investors more confident in the company. This will influence investors to invest so that shares are in great demand and the company's share price will increase. Therefore, ROE moves in the same direction as the stock price. ROE can be determined by the following formula:

$$\text{ROE} = \text{Net Income/Shareholder Equity} \times 100\%$$

2.4   Stok Price

According to Sutrisno (2017: 94) Shares are proof of ownership of a company that provides irregular income in the form of dividends that are distributed if the company makes a profit. Apart from that, the profit expected by investors is from the difference in share prices.

Stock price is the price formed from the interaction of sellers and buyers of shares motivated by expectations of company profits (Suryawan & Wirajaya, 2017: 1328).

According to Priantono, Hendra, & Anggraeni (2018: 63) Share price is a very important factor and needs to be considered by investors because the share price shows the achievements of the issuer which is one measure of the success of a company as a whole.

2.5   Hypothesis and Research Framework

H1: Net profit margin partially affects stock prices
H2: Return On Assets partially affects the stock price
H3: Return On Equity partially affects the stock price
H4: NPM, ROA and ROE simultaneously affect stock prices
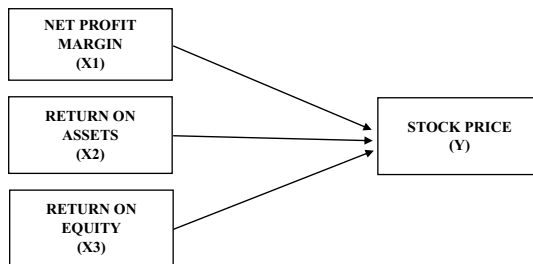The conceptual framework used in this research is:

Fig. 1. Reasearch Framework

3   Research Methods

This research was conducted by describing (descriptive) the results of the analysis conducted with data in the form of numbers (quantitative) in the analysis process. Descriptive research aims to describe in an organized manner, describing in accordance with existing facts, properties and phenomena being studied. (Deni Darmawan; 2013, pp. 37 - 38).

This study tests four variables consisting of three independent variables and one dependent variable. For independent variables, namely Net Profit Margin, Return on Assets and Return on Equity. While the dependent variable is the Share Price.

3.1   Population and Sample

In this study, the population is pharmaceutical companies listed on the Indonesia Stock Exchange in 2018-2022. The method of selecting the sample of this study is purposive sampling, which is a way of determining the sample with a purpose determined according to the will of the researcher. The selected sample is adjusted to the characteristics of certain criteria in accordance with the research objectives. It is very necessary to consider the researcher in determining the sample to be selected in accordance with the objectives (Kasmir 2022). The criteria are:
1.   Pharmaceutical sector companies listed on the Indonesia Stock Exchange in the period 2018-2022.
2.   Companies that publish annual financial reports in 2018-2022

3.2   Object of Reasearch

Of the 11 pharmaceutical sub-sector companies, there are only 9 companies that meet the criteria, namely as follows:

Table 2. Object of Research

No	Code	Name
1	DVLA	Darya-Varia Laboratoria Tbk.
2	INAF	Indofarma Tbk.
3	KAEF	Kimia Farma Tbk.
4	KLBF	Kalbe Farma Tbk.
5	MERK	Merck Tbk.
6	PEHA	Phapros Tbk.
7	PYFA	Pyridam Farma Tbk
8	SIDO	Industri Jamu dan Farmasi Sido
9	TSPC	Tempo Scan Pacific Tbk.

3.3   Data Collection and Techniques

Data collection was carried out using documentation techniques. Documentation is the collection of information carried out by collecting documents, images, and other evidence related to the research conducted to analyze the research variables. The author makes indirect observations by collecting annual financial reports, overviews and developments of pharmaceutical companies listed on the Indonesia Stock Exchange 2018 - 2022 which are directly accessed on the Indonesia Stock Exchange (IDX) website and the company website.

3.4   Data Analysis Technique

The descriptive analysis method was used in this study to analyze the data that had been obtained. This descriptive analysis method is a rule for formulating and interpreting existing data so that it provides a clear picture by collecting, compiling, and analyzing data until a general description of the object under study is known.

Apart from that, the analysis method used is using the normality test, multicollinearity test, multiple linear regression test, coefficient of determination, t test and F test which are processed through the help of the IBM SPSS Statistics 25 program.

4   Discussion

4.1   Normality Test

According to Kasmir (2022: 262), the normality test is used to test whether the data is normally distributed or not. In this study, the normality test process was carried out with a statistical test, namely the Kolmogorov-Smirnov Test. The Kolmogorov-Smirnov test is a normality test by comparing the distribution of data (which will be tested for normality) with a standard normal distribution.

The basis for deciding whether or not the data to be processed is normal is as follows:
a. If the result is significant (≥) of 0,05 then the data is normally distributed.
b. If the results are significant (≤) of 0,05 then the data is not normally distributed.

Table 3. Kolmogorov Smirnov Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		45
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	5.16994367
Most Extreme Differences	Absolute	.121
	Positive	.121
	Negative	-.095
Test Statistic		.121
Asymp. Sig. (2-tailed)		.096[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Based on the SPSS output table above, it can be seen that the Asymp. Sig (2-tailed) > 0,05, which is 0,096, it can be concluded that the data is normally distributed.

4.2   Multicolinearity Test

According to Kasmir (2022: 264), the multicollinearity test aims to determine whether or not there is a correlation or relationship in the independent variables. A good regression model should not have a correlation between the independent variables. If the independent variables are correlated, it will interfere with the relationship between the independent variable (X) and the dependent variable (Y), so that the prediction is not reliable. The basis for making multicollinearity test decisions is as follows:
1. The amount of Variable Inflation Factor / VIF guidelines for a regression model that is free of multicollinearity, namely the VIF value < 10.
2. The amount of Tolerance, the guideline for a regression model that is free of multicollinearity, namely the Tolerance value > 0,1.

Table 4. Multicolinearity Test Results

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	NPM	.173	5.779
	ROA	.232	4.301
	ROE	.444	2.250

a. Dependent Variable: HARGA SAHAM

Based on the SPSS output table above, it can be seen that the tolerance and VIF values are as follows:

a. The tolerance value for the NPM variable is 0,173> 0,1 and the VIF value is 5,779 < 10, so the NPM variable can be stated that there is no multicollinearity.

b. The tolerance value for the ROA variable is 0,232> 0,1 and the VIF value is 4,301 < 10, so the ROA variable can be stated that there is no multicollinearity.

c. The tolerance value for the ROE variable is 0,444> 0,1 and the VIF value is 2,250 < 10, so the ROE variable can be stated that there is no multicollinearity.

4.3   Multiple Linear Regression Test

Based on the SPSS output table above, a multiple linear regression equation can be prepared as follows:

Table 5. Multiple Linear Regression Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.659	3.930		5.257	.000
	NPM	2.939	1.639	.486	1.793	.080
	ROA	3.418	1.542	.518	2.216	.032
	ROE	-1.547	.444	-.589	-3.482	.001

a. Dependent Variable: HARGA SAHAM

Stock Price $= 20,659 + 2,939 + 3,418 + (-1,547)$

The results of the multiple linear equations can be analyzed as follows:

a. The constant value is positive, namely 20,659, this indicates that if the NPM, ROA and ROE variables are constant, the stock price the following year will be 20,659.

b. The regression coefficient of 2,939 for the NPM variable states that every 1% increase in NPM will increase the stock price by 2,939.

c. The regression coefficient of 3,418 for the ROA variable states that each additional ROA of 1% will increase the stock price by 3,418.

d. The regression coefficient of -1,547 for the ROE variable states that each additional ROE of 1% will reduce the stock price by -1,547.

4.4   Coefficient of Determination

Based on the SPSS output table above, the Adjusted R2 value is 0,441, which means that the proportion of influence of the NPM, ROA and ROE variables on stock prices is 44,1%. Meanwhile, the remaining 55,9% (100% - 44,1%) is influenced by other variables.

Table 6. Coefficient of Determination Result

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.692[a]	.479	.441	5.35575

a. Predictors: (Constant), ROE, ROA, NPM

b. Dependent Variable: HARGA SAHAM

Table 7. Partial Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.659	3.930		5.257	.000
	NPM	2.939	1.639	.486	1.793	.080
	ROA	3.418	1.542	.518	2.216	.032
	ROE	-1.547	.444	-.589	-3.482	.001

a. Dependent Variable: HARGA SAHAM

4.5   Partial Significant Test (T-test)

The effect of each variable NPM, ROA, and ROE on stock prices can be seen from the direction of the sign and the level of significance (probability). NPM and ROA variables have a positive direction while ROE has a negative direction. The effect of the independent variables on the dependent variable that has been carried out can be explained as follows:

Test the hypothesis of the effect of NPM on stock prices (H1). From the partial test calculation results obtained a significance value of 0,080. because the sig value > 0,05 then H1 is rejected. This means that partially the NPM variable does not have a significant effect on stock prices. the value of Tcount NPM 1,793 < Ttable 2,020, the NPM variable partially has no significant effect on stock prices. This is the same as previous research conducted by Opi Dwi Dera Astuti (2018).

Test the hypothesis of the effect of ROA on stock prices (H2). From the partial test calculation results obtained a significance value of 0,032. because the sig value <0,05 then H2 is accepted. This means that partially the ROA variable has a significant effect on stock prices. Tcount value ROA 2,216> Ttable 2,020 then the ROA variable partially has a positive and significant effect on stock prices. This is the same as previous research conducted by Opi Dwi Dera Astuti (2018) and Nafis Dwi Kartiko and Ismi Fathia Rachmi (2021).

Test the hypothesis of the effect of ROE on stock prices (H3). From the partial test calculation results obtained a significance value of 0,001. because the sig value <0,05 then H3 is accepted. This means that partially the ROE variable has a significant effect on stock prices. the value of Tcount ROE -3,482> Ttable 2,020, the ROE variable partially has a negative and significant effect on stock prices.

Table 8. Simultaneous Test Results

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1083.343	3	361.114	12.589	.000^b
	Residual	1176.046	41	28.684		
	Total	2259.389	44			

a. Dependent Variable: HARGA SAHAM

b. Predictors: (Constant), ROE, ROA, NPM

4.6 Simultaneous Significant Test (F Test)

Based on the SPSS output table above, it is obtained that the sig value is 0,000 < from the alpha value of 0,05 and the Fcount value is 12,589 > Ftable 2,83, thus the variables X1 (NPM), X2 (ROA) and X3 (ROE) simultaneously have a positive and significant effect on Y (Share Price) in pharmaceutical companies listed on the IDX 2018 - 2022 so that H4 is accepted. This is the same as previous research conducted by Sevaya Ana Mangeta et al (2019) and Yun Fitriano and Meiffa Herfianti (2021).

5 Conclusion

Based on the results of testing classical assumptions, hypotheses and discussions that have been carried out on pharmaceutical sector companies listed on the Indonesian Stock Exchange, the following can be concluded: 1) NPM variable partially has a positive and no significant effect on stock prices in pharmaceutical companies listed on the IDX 2018 – 2022. 2) ROA variable partially has a positive and significant effect on stock prices in pharmaceutical companies listed on the IDX 2018 – 2022. 3) ROE variable partially has a negative and significant effect on stock prices in pharmaceutical companies listed on the IDX 2018 – 2022. 4) Simultaneously Net Profit Margin (NPM),

Return on Assets (ROA) and Return on Equity (ROE) together have a positive and significant effect on stock prices in pharmaceutical companies listed on the IDX 2018 – 2022.

References

1. Dera, Opi Dwi. "Pengaruh Return on Asset (ROA), Earning Per Share (EPS), Dan Net Profit Margin (NPM) Terhadap Harga Saham Pada Perusahaan Makanan Dan Minuman Yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2014-2017." Jurnal Ekonomi Manajemen 4.2 (2018): 134-142. (references)
2. Brigham, Eugene & Joel F Houston (2018). Dasar-dasar Manajemen Keuangan Buku 1, Edisi Ke 14. Jakarta: Salemba Empat. 140-141
3. Kasmir (2021). Analisis Laporan Keuangan, Edisi Revisi. Depok: PT Rajagrafindo Persada, 202-206
4. Partomuan, F. T. (2021). Pengaruh CR, DER dan ROE Terhadap Harga Saham Pada Perusahaan Sub Sektor Konstruksi Yang Terdaftar di Indeks IDX Value 30 Periode 2015-2019. Jurnal Inovatif Mahasiswa Manajemen, 1(3), 242-255.
5. Ramzan, M., Amin, M., & Abbas, M. (2021). How does corporate social responsibility affect financial performance, financial stability, and financial inclusion in the banking sector? Evidence from Pakistan. Research in International Business and Finance, 55, 101314.
6. Sutrisno (2017). Manajemen Keuangan "Teori Konsep & Aplikasi", Cet. Revisi. Yogyakarta: EKONISIA Universitas Islam Indonesia
7. Eri Sutrisno. (2021, May 22). Potensi Besar Industri Kesehatan Dalam Negeri. Indonesia.Go.Id. https://indonesia.go.id/kategori/editorial/2811/potensi-besar-industri-kesehatan-dalam-negeri
8. Husnan, Suad dan Enny Pudjiastuti. (2015). Dasar-Dasar Manajemen Keuangan, Edisi Ketujuh. Yogyakarta: UPP (Unit Penerbit dan Percetakan) AMP YKPN
9. Kementerian Investasi/BKPM. (2021, June 2). potensi-menjanjikan-di-industri-farmasi-dan-kesehatan-indonesia. 2021 Lembaga OSS - Kementerian Investasi/BKPM. https://oss.go.id/baca/artikel/potensi-menjanjikan-di-industri-farmasi-dan-kesehatan-indonesia
10. Kartiko, Nafis Dwi, and Ismi Fathia Rachmi. "Pengaruh Net Profit Margin, Return On Asset, Return On Equity, dan Earning Per Share Terhadap Harga Saham di Masa Pandemi Covid-19 (Studi Empiris Pada Perusahaan Publik Sektor Pertambangan di Bursa Efek Indonesia)." Jurnal Riset Bisnis Dan Investasi 7.2 (2021): 58-68.
11. Ani, Ni Komang Santi, Trianasari Trianasari, and Wayan Cipta. "Pengaruh Roa Dan Roe Serta Eps Terhadap Harga Saham Sektor Farmasi Yang Terdaftar Di Bei." Bisma: Jurnal Manajemen 5.2 (2019): 148-157.
12. Rahmadewi, Pande Widya, and Nyoman Abundanti. Pengaruh EPS, PER, CR dan ROE terhadap harga saham di Bursa Efek Indonesia. Diss. Udayana University, 2018.
13. Mangeta, Sevanya A., Maryam Mangantar, and Dedy N. Baramuli. "Analisis Return on Equity (ROE), Net Profit Margin (NPM), Dan Return on Asset (ROA) Terhadap Harga Saham Properti Di BEI (Periode 2013-2017)." Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi 7.3 (2019).
14. Fitriano, Yun, and Meiffa Herfianti. "Analisis Pengaruh Return on Asset (ROA), Return on Equity (ROE) Dan Net Profit Margin (NPM) Terhadap Harga Saham (Studi Pada Perusahaan Perbankan Yang Listed Di Bursa Efek Indonesia Periode 2015-2018)." EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi Dan Bisnis 9.2 (2021): 193-205.

15. Hermawan, Irwan, Herlina Dwiyanti, and Nanan Sunandar. "Pengaruh Return on Asset (ROA), Operating Profit Margin (OPM), Return On Equity (ROE) dan Tingkat Inflasi Terhadap Harga Saham." Jurnal Aktiva: Riset Akuntansi dan Keuangan 4.2 (2022): 110-127