Research Article

The Effect Of Return On Assets (Roa) And Return On Equity (Roe) Towards Changes In Share Prices (Study On The Pharmaceutical Industry Listing On The Idx For The Period 2015-2019)

Mirna Dianita[1], Debora Tri Oktarina Phety[2]

[1]Departement of Accounting, Widyatama University
[2]Departement of Accounting, Nurtanio University Bandung
[1]mirna.dianita@widyatama.ac.id, [2]deboraphety@unnur.ac.id

Article History: Received: 10 January 2021; Revised: 12 February 2021; Accepted: 27 March 2021; Published online: 20 April 2021

Abstract: This study aims to test and prove the effect of Return On Assets (ROA) and Return On Equity (ROE) on share prices in the pharmaceutical industry listed on the IDX. The population in the study of pharmaceutical companies listed on the IDX in the 2015-2019 period and the sample used were 6 pharmaceutical companies with a purposive sampling technique. The results of this study indicate that partially ROA has no effect on share prices. In addition, ROE also partially has no effect on share prices. And simultaneously ROA and ROE have no effect on share prices in pharmaceutical companies listed on the IDX in the 2015-2019 period.

keywords:ROA, ROE, Share price

1. Preliminary

In the era of globalization, the market of capital has an important role in the economy of a country. Not a few countries pay special attention to the capital market. Not only in developed countries, various developing countries, one of which is Indonesia, is starting to encourage its people to invest in the capital market.

According to Martalena and Maya Malinda (2011), the capital market is a place where you can share , derivative instruments, long-term tradable financial instruments, both debt securities (bonds), equity (shares), mutual funds and other instruments of financial. The market of capital is a investing means for corporates and other organizations (including the government), and as a procedures for funding. So that the market of capital assists many infrastructure and facilities for selling and buying tasks and others investment occurrences. The market of capital functions for the formation of capital and accumulation of funds for financing a corporate. Various types of securities are sold on the capital market and one of which is shares which are traded.

The share price of a corporate is determined by two major factors, called fundamental factors and technical factors. These two factors are taken into consideration for investors to buy what corporate shares and when to buy them. Fundamental analysis is used by investors to determine the condition of the corporate, one of which is by analyzing the corporate's financial statements using financial ratios, while technical analysis emphasizes historical data on the corporate's share prices.

In general, people will buy corporate shares if the corporate has a good level of profitability. Because the better the level of profitability, it shows that the corporate is able to distribute dividends to shareholders, has good business prospects, and can meet prudential banking regulations. This will attract investors to buy shares in the corporate. If the demand for shares increases, it will encourage an increase in the corporate's share price so that the corporate's value will increase and increase the value of shares on the IDX.

The pharmaceutical sector is a sector that has received less attention from investors. Pharmaceutical issuers' shares are only active at certain times. However, shares of pharmaceutical companies are very attractive because of the large turnover of sales of pharmaceutical products. The pharmaceutical industry in Indonesia takes advantage of the Asean-China free market (ACFTA) to obtain cheap raw materials. By obtaining cheap raw materials, it can reduce production costs which in turn can reduce drug costs so that they are able to export their products to countries that still apply import tariffs for raw materials.

Previous research conducted by Hartanto and Diansyah (2018), Watung and Ilat (2016), and Sumaryanti (2017) stated that ROA has an effect of significant and positive on share prices. However, previous research conducted by Ahmad Ulil Albab Al Umar et al (2020) states that ROE has no effect of significant on Share Prices; and ROA and ROE simultaneously have no effect of significant on Share price. This is also supported by research conducted

by Utami and Darmawan (2018) and Ni Komang Santi Ani et al (2019) where denotes that ROA has an effect of insignificant and negative on share prices.

From previous explanation, the authors're interested in running study with the title: **THE EFFECT OF RETURN ON ASSETS AND RETURN ON EQUITY TOWARDS CHANGES IN SHARE PRICES (Study on pharmaceutical companies listing on the IDX for the period 2015-2019).**

Identification of problems

Based on the background, the problem identification is:

1. How does ROA affect share price changes in pharmaceutical companies listed on the IDX
2. How does ROE affect share price changes in pharmaceutical companies listed on the IDX
3. How does ROA and ROE affect changes in share prices in pharmaceutical companies listed on the IDX

2. Literature review

Capital market

According to Tandelilin (2010: 26) the capital market is a meeting place between parties who have excess funds and those who need funds by trading securities / securities. The instruments in the capital market consist of:

1. Bonds
2. Shares
3. Derivative instruments
4. Mutual funds

Share

According to Tjiptono and Fakhrudin (2012), shares're a proof of the involvement or ownership of someone or entity in a corporate or limited liability corporate. With such capital participation, the party has a claim on the corporate's opinion, a claim on the corporate's assets and is entitled to attend the Annual General Meetings. According to Fahmi (2012) there are 2 types of shares in the capital market, namely:

1. Common share

securities sold by a corporate explaining the nominal value (rupiah, dollar, yen, etc.) where the holder is given the right to attend the Shareholders General Meeting and the Shareholders Extraordinary General Meeting and has the right to decide to buy a right issue (limited share sale) or not. Shareholders at the end of the year get profits in the form of dividends.

2. Preferred Stcok

Securities sold by a corporate that specifies the nominal value (rupiah, dollar, yen, etc.) where the holder will get fixed income in the form of dividends that will be received every quarter (three months).

Sartono (2010) states that share prices are the cash flows present value that're look ahead to be gained. Share prices on the share exchange are largely determined by the strength of supply and demand, increasing demand for these shares will later increase the corporate's share price in the market (Brighram and Houston, 2010; Hadi & Kartowagiran, 2019).

3. ROA

According to Tandaelin (2010), ROA is a calculation that describes the extent to which the corporate's assets can generate profits. ROA is a calculation that displays the corporate effectiveness in operating so as to generate profits or profits for the corporate. A high ROA value indicates that the corporate is able to generate profits in the future and profits are important information for investors to consider in investing their capital.

ROE

According to Tandaelin (2010), ROE describes the extent to which a corporate's ability to generate profits can be obtained by shareholders. ROE is an determine to calculate the triumph of management in performing its liabilities, namely running optimum capital for the corporate.

Framework

The profitability level is an standard for measuring the corporate performance. One of the indicators used to measure profitability is ROA and ROE. Companies with high profitability tend to increase their share price due to the high demand from investors.

Gitman (2011) states that ROA is a profitability calculation used to calculate the corporate effectiveness in gain returns by using all corporate assets. The higher this ratio, the better the asset productivity in obtaining net profit.

This in turn will increase the corporate's attractiveness to investors. The increased attractiveness of the corporate makes the corporate more attractive to investors, because the rate of return will be even greater. This will also have an impact that the share price of the corporate in the capital market will also increase so that the return on assets will affect the corporate's share price. This is similar with study ran by Hartanto and Diansyah (2018), Watung and Ilat (2016), and Sumaryati (2017) which have found that ROA's an impact on share prices.

Horne and Wachowicz (2012) stated that high ROE reflects the corporate's acceptance of good investment opportunities and effective cost management. So that the increasing ROE shows that the corporate has a good performance in managing its capital and generating maximum profits. This ratio is very important for shareholders and potential investors, because a high ROE means that shareholders will receive high dividends as well and an increase in ROE will cause an increase in share prices. This is similar with study ran by Hartanto and Diansyah (2018), Mussalamah and Isa (2015), Watung and Ilat (2016), and Sumaryanti (2017) which state that ROE affects share prices.

Research Hypothesis

From the theory above, the hypothesis of this study being tested is:

H_1: ROA has an effect on changes in the share price of pharmaceutical corporates listed at the IDX for the period of 2015-2019

H_2: ROE affects changes in pharmaceutical corporates share prices listed at the IDX for the period of 2015-2019

H_3: ROA and ROE have an effect on changes in pharmaceutical corporates share prices listed at the IDX for the period of 2015-2019

4. Research methods

The object of this research is the pharmaceutical industry for the period 2015 to 2019 which is listed on the IDX (IDX) with a total of 10 companies, namely Darya Varia Laboratoria Tbk (DVLA), Indofarma Tbk (INAF), Kimia Farma Tbk (KAEF), Kalbe Farma Tbk. (KLBF), Merck Tbk (MERK), Phapros Tbk (PEHA), Pyridam Farma Tbk (PYFA), Merck Sharp Dohme Pharma Tbk (SCPI), Sido Muncul Tbk Herbal and Pharmaceutical Industry (SIDO), Tempo Scan Pacific Tbk (TSPC) . However, 4 companies were not used due to several conditions, namely INAF had a very volatile share price, MERK had a share split, PEHA listed after 2018, and SCPI had no trading volume on the share market.

The information used in this study're data of secondary in the shape of financial position reports and income statements in the 2015-2019 period. The collection technique used is by searching for information on the website of each corporate and the website of the IDX (IDX) to obtain financial report data from the pharmaceutical corporate concerned.

The independent variable consists of 2 variables, namely ROA and ROE. While the variable of dependent in this research is the share price. The test used was Kolmogorov Smirnov with a significance level of $\alpha = 5\%$ (Priyanto, 2014). Then the second test is carried out, namely the test of multicollinearity in which a good model of regression shouldn't have correlation among the variables of independent. (Imam Ghozali, 2018). The third step is to conduct a heteroscedasticity test using a scatterplot chart. If there's no certain mark and it does not spread below and above the zero at the y-axis, there will be no heteroscedasticity (Imam Ghozali, 2017). The fourth step is the test of autocorrelation using the Runs-test which seeks to test in case in a model of linear regression there's a correlation among errors of confounding (residuals) in period t with errors in period t-1 (previous) (Imam Ghozali, 2017). If Asymp. Sig. (2-tailed)> from the significance level of α 5%, then there is no autocorrelation in this multi-regression equation.

To make it easier to interpret the correlation between variables, the authors provide the following criteria:

0.80 - 1,000 = very strong
0.60 - 0.799 = strong
0.40 - 0.599 = moderate
0.20 - 0.399 = low
0.00 - 0.199 = very low

The variable of dependent is share price, while the variable of independent is ROA and ROE. The research model is as shown in the equation below:

$Y = a + b1X1 + b2X2$

Y is the share price, while X1 is ROA, and X2 is ROE, a is a constant, b1, b2 is the regression coefficient.

5. Results and discussion

The descriptive statistical analysis outcomes can be notice in Table 1, showing that the amount of data used in this study was 30 units of analysis. This amount is the total for 5 years of observation from 2015 to 2019. The outcomes of the analysis of descriptive output in the table describe the overall research variables.

Descriptive Statistics Test

Table 1

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
R O A	30	-.07	22.80	9.6907	5.55396
R O E	30	-.22	26.40	13.0980	5.71177
HARGA SAHAM	30	-51.92	216.09	8.3557	48.05981
Valid N (listwise)	30				

Statistic analysis

Before testing the hypothesis, a classical assumption test or data feasibility test must be carried out.

Table 2

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		15
Normal Parameters[a,,b]	Mean	.0000000
	Std. Deviation	.57694090
Most Extreme Differences	Absolute	.208
	Positive	.153
	Negative	-.208
Kolmogorov-Smirnov Z		.805
Asymp. Sig. (2-tailed)		.536

a. Test distribution is Normal.

b. Calculated from data.

From the outcomes of the test of normality in Table 2, it can be concluded that the value of Kolmogorov Smirnov is 0.805 with a significant level at 0.536> 0.05. This indicates that the data of residual is distributed by normally because it is significant > 5% so that the model of regression's met the assumption of normality.

Table 3 Multicollinearity Test

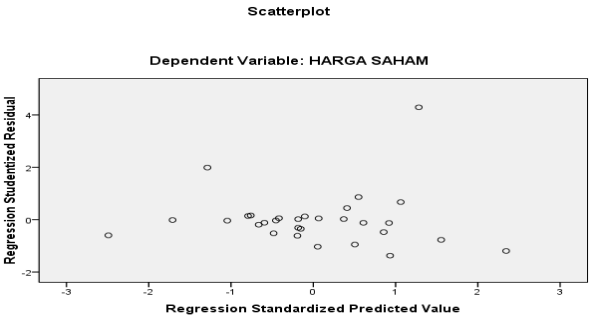
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-26.669	24.628		-1.083	.288		
	ROA	-6.161	4.773	-.712	-1.291	.208	.111	9.043
	ROE	7.232	4.642	.860	1.558	.131	.111	9.043

a. Dependent Variable: SHARE PRICE

The multicollinearity test outcomes can be notice in Table 3, it can be dissolved that the tolerance outcomes of measurement display that no variable of independent has a value of tolerance less than 0.10. Meanwhile, the mearurement of the value of VIF also displays the same, namely that none of the variables of independent has a value of VIF of more than 10, so there's no multicollinearity among the variables of independent in the model of regression.

Table 4 Heteroscedasticity Test



From the outcomes of the test of heteroscedasticity, it can be notice that there is no specific pattern and does not spread below and above the zero at the y-axis, it can be dissolved that heteroscedasticity does not occur.

Table 5 Autocorrelation Test

Runs Test

	Unstandardized Residual
Test Value[a]	-3.42268
Cases < Test Value	15
Cases >= Test Value	15
Total Cases	30
Number of Runs	14
Z	-.557
Asymp. Sig. (2-tailed)	.577

a. Median

From the autocorrelation test results show that a Asymp.Sig. (2 - tailed) that is 0.577 > from the significance level of α 5%, then there is no autocorrelation in this multi-regression equation.

Table 6 Statistical Test t

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-26.669	24.628		-1.083	.288
	ROA	-6.161	4.773	-.712	-1.291	.208
	ROE	7.232	4.642	.860	1.558	.131

a. Dependent Variable: SHARE PRICE

From the outcomes of the t-test in the table above, ROA has a sig point of 0.208> 0.05. These outcomes dissolved that the H1 hypothesis which states that ROA affects share prices in pharmaceutical companies listed at the IDX in the period of 2015-2019 is rejected.

From the test outcomes, ROE has a sig value of 0.131> 0.05. These results indicate that the H2 hypothesis which states that ROE affects share prices in pharmaceutical corporates listed at the IDX in the period of 2015-2019 is rejected. The outcomes of this research are in accordance with Ahmad Ulil Albab Al Umar et al (2020), Ni Komang Santi Ani et al (2019) and Utami and Darmawan (2018) who state that ROA and ROE partially have no effect. Which significant to the Share Price.

Table 7 Statistical Test F

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6124.037	2	3062.018	1.358	.274[a]
	Residual	60858.588	27	2254.022		
	Total	66982.625	29			

a. Predictors: (Constant), R O E, R O A

b. Dependent Variable : SHARE PRICE

From the F-test outcomes in the table above, it has a sig value of 0.274> 0.05. These results indicate that the H3 hypothesis which states that ROA and ROE affect share prices in pharmaceutical corporates listed at the IDX in the period of 2015-2019 are rejected. The outcomes of this research are substantiated by previous study ran by Ahmad Ulil Albab Al Umar et al (2020) where denotes that ROA and ROE simultaneously do not have an effect of significant on the share prices.

6. Conclusions and suggestions

The outcomes of the discussion and research of this learning can be dissolved as follows:

1. ROA has no effect on share prices in corporates of pharmaceutical listed at the IDX in the period of 2015-2019. So it can be concluded that although the net income generated from all assets owned by the corporate is high, it does not affect the movement of the corporate's share price.
2. ROE has no effect on share prices in corporates of pharmaceutical listed at the IDX in the period of 2015-2019. So it can be concluded that although the net income generated from the overall equity owned by the corporate is high, it does not affect the movement of the corporate's share price.
3. ROA and ROE have no effect on share prices in corporates of pharmaceutical listed at the IDX in the period of 2015-2019. So it can be concluded that although the net income generated from all assets and equity owned by the corporate is high, it does not affect the movement of the corporate's share price.

Suggestions that can be conveyed in this study are as follows: For investors who will invest their funds in pharmaceutical companies, it is indispensable to notice to the corporate's ROA and ROE, but for long-term investments that are more than 5 years. As for short-term investment, neither ROA nor ROE have a significant impact on share price changes. Future researchers are expected to use more samples and increase the research period.

References

1. Agus Sartono. 2012. Manajemen Keuangan Teori dan Aplikasi. Edisi 4. BPFE. Yogyakarta
2. Ahmad Ulil Albab Al Umar, dan Anava Salsa Nur Savitri. 2020. "Analisis Pengaruh Roa, Roe, Eps Terhadap Harga Saham". Jurnal Analisa Akuntansi dan Perpajakan, Vol. 4, No 1, (Hal. 30-36)
3. Anwar, N.A.M, Kamarudin, F., Noordin, B.A.A., Hussain, H.I., Mihardjo, M.L.W.W. (2021) Disclosure Level and Quality Effect of Forward-Looking Information on Firm's Stock Return: The Moderating Effect of Ownership Structure, *Transformations in Business & Economics*, (forthcoming)
4. Brigham, Eugene. F, dan Joel F.Houston. 2011. Dasar-dasar Manajemen. Keuangan, Edisi kesebelas, dialihbahasakan oleh Ali Akbar Yulianto. Jakarta: Salemba Empat
5. Darmadji, Tjiptono, dan Fakhrudin. 2012. Pasar Modal di Indonesia. Edisi Ketiga. Jakarta: Salemba Empat.
6. Gitman, Lawrence. 2011. Principles of Managerial Finance. Harper Collins Publisher Inc.
7. Hartanto, dan Diansyah. 2018. "Pengaruh Kinerja Keuangan Terhadap Harga Saham Bank Umum Swasta Nasional yang Terdaftar di Bursa Efek Indonesia". Jurnal Of Business Studies, Vol. 3 No. 1, (hal 45-57).
8. Hadi, S., Andrian, D., & Kartowagiran, B. (2019). Evaluation Model for Evaluating Vocational Skills Programs on Local Content Curriculum in Indonesia: Impact of Educational System in Indonesia. Eurasian Journal of Educational Research, 82, 45-61.
9. Horne, James C. Van dan Jhon M. Wachowicz. 2012. Prinsip-Prinsip Manajemen Keuangan. Edisi 13. Salemba Empat, Jakarta.
10. Imam Ghozali, Dwi Ratmono. 2017. Analisis Multivariat dan Ekonometrika dengan Eviews 10. Badan Penerbit Universitas Diponegoro: Semarang
11. Martalena & Maya Malinda. 2011. Pengantar Pasar Modal. Edisi Pertama, Penerbit Andi: yogyakarta
12. Mussalamah, Arum Desmawati Murni dan Muzakar Isa. 2015. "Pengaruh Earning Per Share (EPS), Debt To Equity Ratio (DER) dan Return On Equity (ROE) Terhadap Harga Saham". BENEFIT Jurnal Managemen dan Bisnis, Vol. 19. No. 2, (hal 189-195).
13. Ni Komang Santi ani, Trianasari dan Wayan Cipta. 2019. "Pengaruh Roa Dan Roe Serta Eps Terhadap Harga Saham Sektor Farmasi Yang Terdaftar Di Bei". Bisma: Jurnal Manajemen, Vol. 5 No. 2, Oktober 2019, (hal 148-157).
14. Sumaryanti, Tri Nonik. 2017. "Pengaruh ROA, EPS, NPM, dan ROE Terhadap Harga Saham Perusahaan Sub-Sektor Batu Bara yang Terdaftar di Bursa Efek Indonesia". E-jurnal Administrasi Bisnis,Vol. 5. No. 2, (hal 284-296).
15. Tandaelin. Eduardus. 2010. Portofolio dan Investasi dan Aplikasi. Yogyakarta: Kanisius.
16. Utami, Martina Rut dan Arif Darmawan. 2018. "Pengaruh DER, ROA, ROE, EPS dan MVA Terhadap Harga Saham Pada Indeks Saham Syariah Indonesia". Jurnal Of Applied Managerial Accounting, Vol. 2 No. 2, (hal 78-89).
17. Watung, Rosdian Widiawati dan Ventje Ilat. 2016. "Pengaruh Return On Asset (ROA), Net Profit Margin (NPM), dan Earning Per Share (EPS) Terhadap Harga Saham Pada Perusahaan Perbankan Di Bursa Efek Indonesia Periode 2011-1015". Jurnal EMBA, Vol. 4 No. 2, (hal 518-529).