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ANALYSIS OF THE EFFECT OF ROA AND ROE ON PER AND ITS IMPLICATIONS ON LQ45 COMPANY SHARE PRICES FOR THE 2009-2019 PERIOD

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ABSTRACT

On the Share Price of the company LQ45 either partially or simultaneously in the last 11 (eleven) years from 2009-2019. The purpose of this study is to find out how the Return On Assets (ROA), Return On Equity (ROE) and Price Earning Ratio (PER) in the LQ45 Company, to determine the development of the LQ45 Company's stock price and to determine the effect of ROA and ROE on PER and their implications. The research conducted by the author is descriptive quantitative, namely achieving a discussion of the problems faced by the company on the company's performance in terms of finance. To determine whether or not there is an influence between ROA and ROE on PER and its implications for the LQ45 company's stock price, panel data regression analysis and hypothesis testing regarding the relationship are partially and simultaneously. The results of this study indicate that the partial test results ROA has no significant effect on PER, and ROE has a negative and significant impact on PER. Simultaneous test results show that ROA and ROE positively and significantly impact PER. The following test results also show that PER has a positive and significant impact on the stock price of LQ45 companies for the 2009-2019 period.
Keywords: *ROA, ROE, PER and Stock Price*

INTRODUCTION

The country's economic sector continues to move towards a more advanced competitive direction when the business world is shaken by many unpredictable events causing many business sectors to slump, especially when the pandemic period strikes the whole world. The economic order has been shaken so much that it has resulted in investors' decisions in choosing target companies as their investment targets.

The capital market in a country can be a reference to see how the enthusiasm or dynamics of business in a country moves its economic policies, such as fiscal and monetary policies. From the policies implemented, It is possible to obtain stimulus conditions and even resilience with the further effect of making a positive contribution to state revenue, especially in terms of tax revenue (Irham, 2013:54).

Many companies listed on the stock exchange offer investment opportunities. These companies have a unique performance that provides a certain level of profit. Companies listed on the stock exchange have certain industry groups, and some are incorporated in a particular index with terms and conditions that must be met by the company depending on the feasibility of its financial statements. The LQ45 index is an index that contains companies with reasonably good and decent performance for investment targets. Every year there are changes in the companies entering and leaving this index. So if there are companies that remain in the LQ45 index for a certain period, they become companies that can attract investors to invest.

To determine whether the condition of the company is in a good or bad position using fundamental analysis through analysis of profitability ratios, namely Return On Assets (ROA), Return On Equity (ROE) and an overview of market ratios, namely Price Earning Ratio (PER).

Companies that target many investments have a relatively high share price because there are many interested parties, coupled with the consideration of financial statement analysis through the ratios also illustrated often spur changes in the value of the share price. Researchers took samples of companies listed in the LQ45 index because the annual reports of LQ45 companies are quality financial reports. The possibility of the data needed in this study being available is getting bigger. Researchers used the LQ45 sample to make it easier for researchers to take complete data samples through large companies in LQ45. In addition, these companies are also large-scale industrial companies in Indonesia, so the income will be more significant, which will then be an attraction for investors to find out financial statement information related to the company's share price. Based on these reasons, the authors researched the entitled " Analysis of the Effect of ROA and ROE on PER and its Implications on LQ45 Company Share Prices for the 2009-2019 Period".

LITERATURE REVIEW

Return on Assets **(ROA)**

Bambang Riyanto (2011:336) mentions the term ROA with Net Earning Power Ratio (Rate of Return on Investment / ROI), namely the ability of the capital invested in overall assets to generate net profits. The net profit he meant was net profit after tax. Companies that have high ROA information will increase investor confidence in the company. In addition, a high ROA makes the probability of return on investment made by investors higher, which also means that the investment risk made by investors will be lower.

Return on Equity **(ROE)**

Return on Equity (ROE) is a ratio that shows the extent to which the company manages its capital effectively, measuring the level of profit from investments that the owners have made of their capital or shareholders. (Munawir, 2010:69). ROE is an essential indicator that investors often use in assessing the level of profitability before investing.

Price Earning Ratio (**PER)**

Employee engagement I Price Earning Ratio Approach estimates stock value by dividing the current stock price by Earning Per Share (EPS). PER is the most comprehensive measurement ratio of the company's performance because the assessment ratio reflects the combination of the effects of the risk ratio (liquidity ratio and leverage ratio) and return percentage (activity ratio and profitability ratio). (Robert Ang 1997:13) suggests the use of PER is to see how the market appreciates the performance of a company's shares on its performance as reflected by its EPS. Meanwhile, according to (Jones 2010:10), the fundamental analysis that can be used for stock valuation is the Price Earning Ratio (PER approach) approach. This approach estimates the stock value by dividing the current stock price (price) by earnings per share (EPS). This approach does not take into account the time value of money.

Stock price

According to Robbert Ang (1997) in Ajeng Dewi Kurnianto (2013:28), shares are securities as evidence of participation or ownership of individuals or organizations (agencies) in a company. According to Tandelilin (2011: 211), stock prices reflect investors' expectations of earnings factors, cash flow, and the level of return required by investors. Meanwhile, according to Sartono (2018:20), the stock market price is the price formed through the mechanism of supply and demand in the capital market.

RESEARCH METHODS

This study was conducted to analyze and how the effect of Return on Assets (ROA) on the Price Earning Ratio (PER), the result of Return on Equity (ROE) on the Price Earning Ratio (PER) and the Implications of Price Earning Ratio (PER) on stock prices either partially Simultaneously with Case Studies on Companies Listed in the LQ45 Index of the Indonesia Stock Exchange (IDX) for the Period of 2009 – 2019. This study was carried out on companies listed in the LQ45 Index of the Indonesia Stock Exchange (IDX) from 2009 through 2019. Based on the type and number of data sources used in this study, the researchers did not come directly to the company but instead visited the company's official websites. And the official website of the Indonesia Stock Exchange, which provides data on the company's annual report. In this study, the population used are Companies Listed in the LQ45 Index of the Indonesia Stock Exchange (IDX) for the Period of 2009 – 2019. In this study, the sample selection was purposive sampling to obtain a representative sample following the specified criteria. The sample selection criteria are as follows:

a. Companies were always included in the LQ45 index on the Indonesia Stock Exchange during the 2009-2019 period.
b. Companies Listed in the LQ45 Index on the Indonesia Stock Exchange (IDX) have complete annual financial reports for the 2009-2019 period.

Based on the above criteria, the sample used is the annual company financial statements of companies listed in the LQ45 index on the Indonesia Stock Exchange from 2009 to 2019.

Table 1 Companies Listed in the LQ45 Index of the Indonesia Stock Exchange (IDX) for the Year 2009 – 2019

No	Company	CODE
1	Astra International Tbk	ASII
2	Bank Central Asia Tbk	BBCA
3	Bank Negara Indonesia (Persero) Tbk	BBNI
4	Bank Rakyat Indonesia (Persero) Tbk	BBRI
5	Bank Mandiri (Persero) Tbk	BMRI
6	Indofood Sukses Makmur Tbk	INDF
7	Perusahaan Gas Negara (Persero) Tbk	PGAS
8	Tambang Batubara Bukit Asam (Persero) Tbk	PTBA
9	Telekomunikasi Indonesia (Persero) Tbk	TLKM
10	United Tractors Tbk	UNTR

Source: Research Data

This research was conducted using statistical methods assisted by the EVIEWS (Ekonometries Views) 9 program. The analysis in this study uses panel data, a combination of time-series data and cross-sectional data. There are two kinds of panel data: panel balance data and panel data unbalance. Panel balance data is a condition where the cross-sectional unit has the same number of time-series observations. In panel data analysis, we will encounter two situations when the data is complete, meaning that each object in the study is finished every year. This descriptive statistical analysis aims to provide a description (description) of data so that the data presented is easy to understand and informative for people who read it. This descriptive analysis consists of Frequencies, Descriptive, Explore, Crosstabs and Ratio. Descriptive statistics explain various data characteristics such as the average (mean), the number (sum) of standard deviations (standard deviation), variance (variance), range (range), minimum and maximum values and so on. These analyses already exist in the options menus in statistical data processing software often used.

This study uses this hypothesis test to test whether the independent variable affects the dependent variable. The hypothesis is a temporary answer to the research problem formulation (Sugiyono, 2016: 223). Therefore the problem formulation is usually arranged in a question sentence. Thus, the research hypothesis can be interpreted as a temporary answer to the research problem until proven through the collected data and tested empirically.

RESULTS AND DISCUSSION

Descriptive statistics are used to describe data statistically. Descriptive statistics in this study refer to the average value (mean) and standard deviation (standard deviation), the minimum and maximum values and from all variables in this study, namely X (ROA ROE), Y (PER) and Z (Stock Price). During the 2009–2019 research period, as shown in Table 2 below:

Table 2. Descriptive Statistical Analysis of Variables X, Y and Z

	X1_ROA	X2_ROE	Y_PER	Z_HARGASAHAM
Mean	8.928818	22.70718	14.63364	10400.64
Median	4.520000	19.91000	14.42500	7637.500
Maximum	46.57000	70.30000	27.87000	74000.00
Minimum	0.770000	4.640000	2.170000	1750.000
Std. Dev.	8.530845	13.32492	4.455605	10088.88
Skewness	1.578397	1.125038	0.349125	3.469625
Kurtosis	5.839055	4.435141	3.522400	19.07636
Jarque-Bera	82.61725	32.64467	3.485415	1405.262
Probability	0.000000	0.000000	0.175046	0.000000
Sum	982.1700	2497.790	1609.700	1144070.
Sum Sq. Dev.	7932.509	19353.33	2163.914	1.11E+10
Observations	110	110	110	110

Source: Output Eviews 9 (data processed by the author)

Based on the results of descriptive statistical tests using Eviews 9, each variable will be described according to the results in table 4.3 as follows:

a. Return On Assets (ROA) is a ratio that reflects the company's ability to generate profits based on the use of its assets. From the analysis results in table 4.3, the minimum

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ROA value is 0.770000, the maximum value is 46.57000, the average or mean is 8.928818, and the standard deviation is 8.530845. The average value shows that every Rp. 1 value of assets used can generate a net profit of Rp. 8.928818.

b. Return On Equity (ROE) is a ratio that shows the power to generate a return on investment based on the book value of the shareholders. In table 4.3, the minimum value of Return On Equity is 4.640000, the maximum value is 70.30000, the average value or mean is 22.70718, and the deviation value is 13.32492. The average value shows that every Rp. 1 fund invested by investors as share capital will generate a net profit of Rp. 22.70718.

c. Price Earning Ratio (PER) is the ratio of market price per share to net earnings per share. This Earning Price Ratio is the company's current price per share valuation compared to its net income per share. Price to This Earning Ratio is a ratio often used to evaluate prospective investments. This ratio is also used to assist investors in deciding whether to buy shares of a particular company. In table 4.3, the minimum value of the Price Earning Ratio is 2.170000, the maximum value is 27.87000, the average value or mean is 14.63364, and the deviation value is 4.455605. The average value shows that investors are willing to pay Rp for every Rp. 1 company income or earnings per share. 14,63364

Table 3 Random Effect Model Test Results from The Effect of ROA and ROE on PER

Dependent Variable: Y_PER				
Method: Panel EGLS (Cross-section random effects)				
Date: 07/04/20 Time: 23:24				
Sample: 2009 2019				
Periods included: 11				
Cross-sections included: 10				
Total panel (balanced) observations: 110				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1_ROA	0.163600	0.106351	1.538298	0.1269
X2_ROE	-0.109340	0.053368	-2.048798	0.0429
C	15.65568	1.179796	13.26982	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			2.887922	0.3798
Idiosyncratic random			3.690537	0.6202
Weighted Statistics				
R-squared	0.309046	Mean dependent var	5.261406	
Adjusted R-squared	0.201084	S.D. dependent var	3.716033	
S.E. of regression	3.676649	Sum squared resid	1446.399	

F-statistic	5.534262	Durbin-Watson stat	1.572922
Prob(F-statistic)	0.018737		
Unweighted Statistics			
R-squared	0.060505	Mean dependent var	14.63364
Sum squared resid	2177.990	Durbin-Watson stat	1.044574

Source: Output Eviews 9 (data processed by the author)

1. The Effect of Return On Assets (ROA) on Price Earning Ratio (PER)

Based on the fixed random model test results table, the t-count value of ROA = 1.538298 and the t-table value of 1.982... The t-count value is smaller than the t-table value = 1.538298 < 1.982, with a prob value of 0.1269 > sig alpha 0.05 then it can mean that H0 is accepted and H1 is rejected so that it can conclude that partially Return On Assets (ROA) has no significant effect on Price Earning Ratio (PER).

2. The Effect of Return On Equity (ROE) on Price Earning Ratio (PER)

Based on the table of fixed random model test results, the t-count value of ROA = -2.048798 and the t-table value of 1.982, with a value of prob 0.0429 < sig alpha 0.05. The t-count value is greater than the t-table value = 2.048798 > 1.982, the negative sign indicates a negative effect, and it can interpret that H0 is rejected and H1 is accepted so that it can conclude that partially Return On Equity (ROE) has a negative and significant effect on Price Earning Ratio (PER).

3. The Effect of Return On Assets (ROA) and Return On Equity (ROE) on Price Earning Ratio (PER)

Based on the simultaneous hypothesis testing, the F-count value is 5.534262, and the F-table is 3.082015, and with a prob value of 0.018737, the F-count value is more significant than F-table = 5.534262 > 3.082015, it means that H0 is rejected and H1 is accepted. So it can conclude that simultaneously variable X, namely Return On Assets (ROA) and Return On Equity (ROE) simultaneously (together), has a positive and significant effect on variable Y, namely Price Earning Ratio (PER).

Table 4 Random Effect Model Test Results from The Effect of PER on Stock Prices

Dependent Variable: Z_Stock Prices
Method: Panel EGLS (Cross-section random effects)
Date: 07/04/20 Time: 23:30
Sample: 2009 2019
Periods included: 11
Cross-sections included: 10
Total panel (balanced) observations: 110
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Y_PER	**157.3783**	217.0450	**0.725095**	**0.4700**

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C	**8097.619**	3792.466	2.135186	0.0350
Effects Specification				
			S.D.	Rho
Cross-section random			6035.662	0.3369
Idiosyncratic random			8468.108	0.6631
Weighted Statistics				
R-squared	0.040880	Mean dependent var	4052.075	
Adjusted R-squared	0.040334	S.D. dependent var	8418.806	
S.E. of regression	8437.029	Sum squared resid	7.69E+09	
F-statistic	0.529644	Durbin-Watson stat	0.880679	
Prob(F-statistic)	0.046833			
Unweighted Statistics				
R-squared	0.011150	Mean dependent var	10400.64	
Sum squared resid	1.10E+10	Durbin-Watson stat	0.617132	

Source: Output Eviews 9 (data processed by the author)

Based on the table of fixed random model test results, the t-count value PER = 0.725095 and the t-table value is 1.982. The t-count value is smaller than the t-table value = 0.725095 <1.982, with prob 0.4700> 0.05. It can interpret that H0 is accepted and H1 is rejected, so it can conclude that the Price Earning Ratio (PER) partially has no significant effect on stock prices.

The Effect of Return On Assets (ROA) on Price Earning Ratio (PER)

Based on the table of fixed random model test results, the t-count value of ROA = 1.538298 and the t-table value of 1.982. The t-count value is smaller than the t-table value = 1.538298 < 1.982, with a prob value of 0.1269 > sig alpha0.05, and it can interpret that H0 is accepted, and H1 is rejected so that it can say that partially Return On Assets (ROA) has no significant effect on Price Earning Ratio (PER). These results are different from some previous studies conducted by Rizki Aditya Septadi, Rodhiyah & Wahyu Hidayat. Their research concluded that Return On Assets (ROA) had a positive and significant effect on Price Earning Ratio (PER). This research is also in line with the study conducted by Nur Ahmadi and Bi Rahmani. However, research by Iwan Firdaus and Ika shows the results that Return On Assets (ROA) harms Price Earning Ratio (PER), which is also contrary to the results of research conducted by Frengky David Sijabat and Anak Agung Gede Suarjaya, which states that Return On Assets (ROA)) has a positive and significant effect on the Price Earning Ratio (PER).

The Effect of Return On Equity (ROE) on Price Earning Ratio (PER)

Based on the table of fixed random model test results, the t-count value of ROA = -2.048798 and the t-table value of 1.982, with a prob value of 0.0429 < sig alpha 0.05. The t-count value is greater than the t-table value = 2.048798 > 1.982, the negative sign indicates a negative influence, and it can interpret that H0 is rejected and H1 is accepted so that it can conclude that partially Return On Equity (ROE) has a negative and significant effect on Price Earning Ratio (PER). These results have similarities with research conducted by Nur Ahmadi Bi Rahmani that Return On Equity (ROE) affects Price Earning Ratio (PER). However, based on the two types of research, it is stated that ROE harms the Price Earning Ratio (PER), which is the similarity of the results with this study.

The Effect of Return On Assets (ROA) and Return On Equity (ROE) simultaneously (together) on the Price Earning Ratio (PER)

Based on the simultaneous hypothesis testing, the F-count value is 5.534262, the F-table is 3.082015, and the F-count value is more significant with a prob value of 0.018737 F-table = 5.534262 > 3.082015, it means that H0 is rejected and H1 is accepted. So it can conclude that simultaneously variable X, namely Return On Assets (ROA) and Return On Equity (ROE) simultaneously (together), has a positive and significant effect on variable Y, namely Price Earning Ratio (PER). The results of the study show the similarity of the results with other studies conducted by Rizki Aditya Septadi, Rodhiyah & Wahyu Hidayat, who stated that Return On Assets (ROA) and Return On Equity (ROE) simultaneously (together) had a positive effect on variable Y, namely Price Earning Ratio (PER). This variable indicates that the two profitability ratios, namely Return On Assets (ROA) and Return On Equity (ROE), influence Price Earning Ratio (PER). On Assets (ROA) and Return On Equity (ROE) simultaneously have a positive effect on Price Earning Ratio (PER).

The Effect of Price Earning Ratio (PER) on Stock Prices

Based on the simultaneous hypothesis testing, the F-count value is 5.571753, and the F-table is 3.929012. With a prob value of 0.000001, the F-count value is more significant than F-table = 5.571753> 3.929012. It can interpret that H0 is rejected and H1 is accepted. So it can conclude that the Y variable, namely Price Earning Ratio (PER), has a significant effect on Variable Z, namely Stock Price. Several previous studies stated that the Price Earning Ratio (PER) affected stock prices. Research by Dorothea Ratih, Apriatni E.P, and Saryadi says that the Price Earning Ratio (PER) impacts stock prices. Specifically, research by Siti Rahmania Natsir and Ema Novasari in a different study showed a positive and significant effect between Price Earning Ratio (PER) and Stock Price. Still, in line with these results, Yuniep Mujati S and Media Dzulqodah also conducted research which stated that there was a positive and significant relationship between the Price Earning Ratio (PER) on the stock price and was further strengthened by the study conducted by Ni Made Dewi Puspita Sari and Nyoman Triaryati who further enhances the research results that the Price Earning Ratio (PER) affects stock prices.

CONCLUSION

Based on the discussion and research results regarding the analysis of the influence of ROA and ROE on PER and their implications on the LQ45 Company's Share Price for the 2009-2019 period, the following conclusions can be drawn: Return on Assets (ROA) has no significant effect on Price Earning Ratio (PER) Based on the table of fixed random model test results it can interpret that partially Return On Assets (ROA) has no significant effect on Price Earning Ratio (PER). Return on Equity (ROE) has a negative and significant impact on Price Earning Ratio (PER). Based on the table so it can conclude that partially Return On Equity (ROE) has a negative and significant effect on Price Earning Ratio (PER). Return On Assets (ROA) and Return On Equity (ROE) simultaneously (together) have a positive and significant effect on Price Earning Ratio (PER), so it can conclude that simultaneously the X variable is Return On Assets (ROA) and Return On Equity (ROE) simultaneously (together) have a positive and significant effect on variable Y, namely Price Earning Ratio (PER). Price Earning Ratio (PER) positively and significantly impact stock prices. Based on the simultaneous hypothesis testing, the Y variable is Price Earning Ratio (PER), which substantially affects Variabel Z, namely stock prices.

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