

THE IMPACT OF EARNINGS PER SHARE, DEBT TO EQUITY RATIO, AND
CURRENT RATIO TOWARDS THE PROFITABILITY OF COMPANIES
LISTED IN LQ45 FROM 2009 TO 2013

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Abstract- The aims of a firm to operate are the development and the continuity of the business itself. It can be achieved by gaining more profits for the firm. Profitability measures the company performance by comparing the profits of the company with its resources during the period year. The firm with high profitability shows that the company efficiently and productively manages the sales, assets, and investment in its operating activity to gain profit. This research objective is to find out the impact of earning per share, debt to equity ratio, and current ratio toward the profitability, which is indicated to return on assets, of the companies listed LQ45 index. The method use to analyze the impact is multiple linear regression. The sample used of this research is 22 companies that listed consistently on LQ45 Index during 2009 – 2013 period. The result of this research shows that earning per share, debt to equity ratio, and current ratio have significant impact towards profitability (ROA). Earning per share has a positive significant impact towards profitability (ROA), on the other hand debt to equity ratio has a negative significant impact towards profitability (ROA), and current ratio also has a negative significant impact towards profitability (ROA). The earning per share, debt to equity ratio, and current ratio is influencing profitability (ROA) by 38.0%, as a result of Coefficient of Determination.

Keywords: earning per share, debt to equity ratio, current ratio, return on assets, multiple linear regression

Introduction

The aims of a firm to operate are the development and the continuity of the business itself. It can be achieved by gaining more profits for the firm. The firm's management should manage the use of firm's resource productively and efficiently to gain optimum profit for the accomplishment of firm's goals. Profitability shows the company performance by comparing the profits of the company with its resources during the period year. Hanafi (2003) stated that profitability measures the ability of the company to gain profit in a certain level of sales, assets, and investment. The firm with high profitability shows that the company efficiently and productively manages the sales, assets, and investment in its operating activity to gain profit.

One of the financial ratios on assessing the profitability is return on investment (ROA), it shows the efficiency and effectiveness of the firm in using its assets to gain profit. Return on assets comparing the net profit with the firm's total assets. This ratio indicates how well the firm's management in gaining profit by managing its total assets. Sudana (2011) stated that the higher

the return on assets, the use of company assets is more efficient, in other words with the same number of assets company can produce more profit and vice versa.

This research is to find out the impact of earning per share and debt to equity ratio toward the profitability, which is indicated to return on assets, of the companies listed LQ45 index. Earning per share is considered as one of important ratio by the investor. It is compared the profit gained by company to its number of shares issued. It shows how much of each share outstanding will get from the company profits. The higher earning per share is more likeable for investor because it shows the higher earning for each investor share. Debt to equity ratio is comparing the total liabilities of the company with its total equities to finance company's assets. The higher debt to equity ratio is more risky because it can reduce the company profits due to the higher interest the company has to bear. Current ratio is comparing the current assets of the company to its current liabilities. The higher current ratio shows that the company has high liquidity that will lessen the company risk. However, high current ratio also shows that the company lose its opportunity in gaining more profit since the fund is not used properly. LQ45 index consist of the most 45 liquid companies listed on Indonesia Stock Exchange. Because of the high liquidity and good financial condition as the criteria of the stocks index, LQ45 usually is used as a benchmark for the investor.

Literature Review

Financial Statement

According to Harvey (2012), financial statement is a report of basic accounting data that helps investors understand a firm's financial history and activities. Every year, publicly traded stock company is obligated to publish the audited financial statement. The independent public accountant must audit the annual financial statement. Financial statement informs the financial activities and history of the firm.

Stock

Brigham and Ehrhardt (2009) stated that an ordinary stock simply represents an ownership interest in a corporation. Stock is divided by two main types: common stock and preferred stock. The difference between the types is that the common stockholder has vote right at shareholder meeting whereas the preferred stockholder does not have.

LQ45 Index

LQ45 index consist of 45 most liquid companies that listed on Indonesia Stock Exchange. According to Indonesia Stock Exchange, "The LQ45 Index comprises of 45 most liquid Common Stock (hence the name LQ is referring to Liquid) listed on the IDX that have been chosen and scrutinized through the following criteria: The selection process started by selecting Top 60 common stocks with highest average transactions value in Regular Market for the last 12 months. Out of the 60 stocks; further 45 stocks are selected weighted by Transaction Value, Market Capitalization, Trading Day Number, and Transaction Frequency in Regular Market over the last 12-month period. The stocks must be included in the calculation of the Composite Index (JCI). The stocks should have been listed in the IDX for at least 3 months. The stocks should have a good financial condition, prospect of growth, and high trading frequency and transactions in Regular Market".

Earning per Share

According to Gitman (2009), earning per share represents the number of monetary value earned during the period on behalf of each outstanding share of common stock. It is considered as an important indicator of corporate success and is watched by investing public.

$$\text{Earning per Share} = \frac{\text{Net Income}}{\text{Number of common shares outstanding}}$$

Equation 1: Earning per Share

Debt to Equity Ratio

According to Peterson (1999), debt to equity ratio is a financial ratio indicating the relative proportion of shareholders' equity and debt used to finance a company's assets. Gitman (2009) stated that the more debt a firm uses in relation to its total assets, the greater its risk of being unable to meet its contractual debt payments.

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Total Equities}}$$

Equation 2: Debt to Equity Ratio

Current Ratio

According to Ang (1997), current ratio is one of the liquidity ratio, measures the company's ability to meet its short-term obligation. The higher current ratio means the less failure risk of the company to meet its short-term obligation. As the result, the risks that will be borne by the shareholders are also getting smaller.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Equation 3: Current Ratio

Return on Assets

According to Gitman (2009), "return on assets (ROA) measures the return earned on the common stockholders' investment in the firm". Bodie (2011) stated that higher ROA should be better, because it measures the effectiveness of management in generating profit with its assets and should be better able to raise money in security markets because they offer prospects for better returns on the firm's investments.

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}}$$

Equation 4: Return on Assets

Hypothesis

Hypothesis for this research are:

- H1: Earning per share has a significant impact on return on assets.
- H2: Debt to equity ratio has significant impact on return on assets.
- H3: Current ratio has significant impact on return on assets.

Methodology

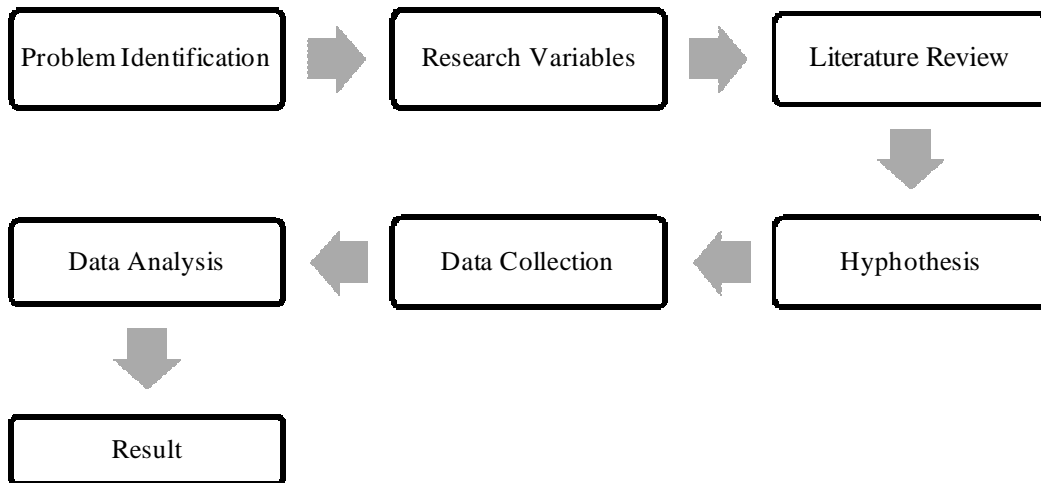


Figure 1: Research Methodology

Problem Identification: Identifying the problem that will be researched and determine the steps to analyze it.

Research Variables: Determining variable used for this research. 2009 to 2013.

Literature Review: Explaining the theory used for this research.

Hypothesis: Assumed proposition of the research premises.

Data Collection: Process of gathering the data used to reach the main purpose of the research.

Data Analysis: Process of analyzing the data as to find out the result of the research.

Result: Explaining the result of the research objective.

The sample used of this research is 22 companies that listed consistently on LQ45 Index during 2009 – 2013 period. Researcher using purposive sampling method as the sampling technique, the criteria use in this research is based on the judgments of researcher on the purpose of this research. The method used for research data analysis is multiple linear regressions. These are the list of companies that are used for this research:

Table 1 Companies Consistently Listed in LQ45 Index in 2009-2013

1	AALI	Astra Agro Lestari Tbk
2	ADRO	Adaro Energy Tbk
3	ASII	Astra International Tbk
4	BBCA	Bank Central Asia Tbk
5	BBNI	Bank Negara Indonesia (Persero) Tbk
6	BBRI	Bank Rakyat Indonesia (Persero) Tbk
7	BDMN	Bank Danamon Tbk
8	BMRI	Bank Mandiri (Perseri) Tbk
9	INCO	International Nickel Indonesia Tbk
10	INDF	Indofood Sukses Makmur Tbk
11	INTP	Indocement Tunggul Prakasa Tbk
12	ITMG	Indo Tambangraya Megah Tbk
13	JSMR	Jasa Marga (Persero) Tbk
14	KLBF	Kalbe Farma Tbk
15	LPKR	Lippo Karawaci Tbk

16	LSIP	London Sumatera Plantation Tbk
17	PGAS	Perusahaan Gas Negara (Persero) Tbk
18	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk
19	SMGR	Semen Gresik (Persero) Tbk
20	TLKM	Telekomunikasi Indonesia (Persero) Tbk
21	UNTR	United Tractors Tbk
22	UNVR	Unilever Indonesia Tbk

Data Analysis

Classic Assumption Test

Classic assumption test consist of:

1. Normality test shows whether the collected data has the pattern of normal distribution or not. The data that is not following the normal distribution will be estimated as bias. Normality testing is done through Kolmogorov-Smirnov correction of Lilliefors test. According to Kolmogorov-Smirnov method, the data is normally distributed if the value of Asymp. Sig. above the limit of maximum error, which is 0.05. The data has 0.157 as the value of Asymp. Sig, it means the data is normally distributed.
2. Multicollinearity is a condition in which there is a highly correlation between independent variables. Multicollinearity test is used to detect whether there are a correlation between independent variable. Multicollinearity test is using Variance Inflation Factors (VIF). The VIF of independent must be below 10. Thus, it can be concluded that there was no multicollinearity in the data. The VIF of the independent variables are below 10 and greater than 0.2. It means that data predictor or independent variable has no correlation with each other. The used of independent variables in this research is not biased. Thus, the relationship result between independent variable and dependent variable is valid.
3. Autocorrelation test is used to determine if there is a deviation in autocorrelation classic assumption. Autocorrelation occurred between the residual on a single observation with other observations in the regression model. Autocorrelation test will be tested to see whether regression model is appropriate or not for used. Autocorrelation is used in time series data. It determines if there is a correlation between period occurred (t) with the earlier period (t-1). Autocorrelation test carried out using statistical tests Durbin Watson by comparing the value of calculated Durbin-Watson (DW) with its critical value (dL and dU). The data has the value of DW lies between dU (1.7455) < DW (1.798) < 4 - dU (2.2545). There is no deviation in autocorrelation classic assumption. It means there is no correlation between periods occurred (t) with the earlier period (t-1) in this regression model.
4. Heterocedasticity is the circumstance in which the variance of variables is unequal across the range of values of a second variable that predicts it. In statistics, a collection of random variables is heteroscedastic if there are sub-populations that have different variability from others. Earning per share has a significance of 0.072, Debt to equity ratio has a significance of 0.934, and Current ratio has a significance of 0.249. EPS, DER, and CR has the significance above 0.05. It can be conclude that there is no heterocedasticity in regression model.

Coefficient of Determination

Coefficient of determination is used to measure the influence of independent variable combined with its dependent variable. The magnitude of influence of EPS (X_1), DER (X_2), and CR (X_3) to ROA

(Y) can be shown by coefficient of determination. It is shown by the table 2 that EPS and DER have a R-Square value of 0.380. It shows that EPS (X_1), DER (X_2), and CR (X_3) variables give an influence of 38.0% to ROA. While the rest of 62.0% ROA can be explained by other variables, which are not examined.

Table 2 R Square

Model Summary^a

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.616 ^a	.380	.362		9.06081

a. Predictors: (Constant), CR, EPS, DER
b. Dependent Variable: ROA

Partial Correlation Test

According to Priyatno (2013), "partial correlation analysis is used to measure the linear relationship of one particular independent with the dependent variable excluding the effect of other independent variable."

Table 3 Partial Correlation Test

Variable	Standardized Coefficients Beta	Correlations Zero-order	Partial Correlation	Partial Correlation (%)
X_1	0.205	0.320	0.066	6.6%
X_2	-0.388	-0.514	0.199	19.9%
X_3	-0.263	-0.438	0.115	11.5%
Overall Influence			0.380	38.0%

Partial correlation is obtained by multiplying the standardize coefficient beta with zero-order. Based on Table 3, the influence of EPS (X_1) to ROA (Y) partially is 6.6%, the influence of DER (X_2) to ROA (Y) partially is 19.9%, and the influence of CR (X_3) to ROA (Y) partially is 11.5%. So, the overall influence of EPS (X_1), DER (X_2), and CR (X_3) towards ROA (Y) is equal to 38.0%. This can be seen from the value of the coefficient of determination.

F-Test

F-Test aim to find out whether the independent variables combined significantly affect the dependent variable. The hypotheses in this F-Test are shown as follows:

Ho: There is no significant effect from EPS (X_1), DER (X_2), and CR (X_3) combined towards ROA (Y).

Ha: There is significant effect EPS (X_1), DER (X_2), and CR (X_3) combined towards ROA (Y).

Table 4 F-Test Result

F calculated	df	F table	Result	Conclusion
21.656	df1 = 2 df2 = 107	2.6879	Ho rejected	Influenced (Significant)

From table 4, the calculated F is 21.656 because of it, calculated F (25.656) > F table (2.6879), therefore Ho is rejected. As a result, there is a simultaneously significant influence from EPS (X₁), DER (X₂), and CR (X₃) towards ROA (Y).

T-Test

T-Test aim to show whether there is a significant influence from each independent variable to dependent variables. The hypothesis uses in T-Test are as follow:

- Ho₁ : β_i = 0 EPS does not significantly influence ROA.
- Ha₁ : β_i ≠ 0 EPS significantly influence ROA.
- Ho₂ : β_i = 0 DER does not significantly influence ROA.
- Ha₂ : β_i ≠ 0 DER significant ly influence ROA.
- Ho₃ : β_i = 0 CR does not significantly influence ROA.
- Ha₃ : β_i ≠ 0 CR significant ly influence ROA.

Table 5 T-Test Result

Variable	t calculated	df	t table	Result	Conclusion
EPS(X1)	2.621	107	1.9824	Ho rejected	Significant
DER(X2)	-4.730		-1.9824	Ho rejected	Significant
CR (X3)	-3.184		-1.9824	Ho rejected	Significant

Based on table 5 it is shown that:

1. Variable X1 has t calculated (2.621) > t table (1.9824), therefore Ho rejected. Hence, it can be concluded that there is significant influence of EPS (X1) against stock ROA (Y).
2. Variable X2 has t calculated (-4.730) < t table (-1.9824), therefore Ho rejected. Hence, it can be concluded that there is significant influence of DER (X2) against ROA (Y).
3. Variable X3 has t calculated (-3.184) < t table (-1.9824), therefore Ho rejected. Hence, it can be concluded that there is significant influence of CR (X3) against ROA (Y).

Multiple Linear Regression Equation

Table 6 Multiple Regression Analysis

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.451	1.527		11.429	.000
	EPS	.003	.001	.205	2.621	.010
	DER	-1.458	.308	-.388	-4.730	.000
	CR	-.010	.003	-.263	-3.184	.002

a. Dependent Variable: ROA

Based on table 6, it is obtained the equation of multiple regression analysis:

$$Y = 17.451 + 0.003 X_1 - 1.458 X_2 - 0.010 X_3 + e$$

Based on the multiple linear regression equation above, it is obtained the constant value of 17.451. This means, if ROA is not influenced by any of its independent variables, which is EPS, DER, and CR equal to zero, the magnitude of ROA means will be worth 17.451.

Coefficient of regression also shows the relationship direction of the independent variables with ROA. Coefficient of regression for EPS is positive; it means that there is a mutual relationship between EPS and ROA. Thus, if EPS is increasing by one unit, it will affect the ROA to increase by 0.003.

On the other hand, coefficient of regression for DER is negative; it means that DER has an opposite relationship with ROA. If DER is increasing by one unit, the ROA will decrease by 1.458.

Coefficient of regression for CR is negative; it means that CR also has an opposite relationship with ROA. If CR is increasing by one unit, the ROA will decrease by 0.010.

Conclusion

The Relationship between EPS and Profitability

The multiple regression analysis shows that EPS has positive significant effect on the profitability (ROA) of companies listed in LQ45. This result is supported by Muhfiatun (2011) previous finding that EPS has significant effect to the ROA.

Firm's with higher EPS is more favorable because the company generating higher profits. The higher profit is important for ROA, because ROA measurement is dividing the firm's profit by its assets. The higher profits will increase the numerator for ROA, which are profits. Increased number in numerator can resulted in the higher ratio of ROA.

The Relationship between DER and Profitability

The multiple regression analysis shows that DER has negative significant effect on the profitability (ROA) of companies listed in LQ45. This result is supported by Fitri Linda Rahmawati (2009) previous finding that DER has negative significant effect to the ROA.

Firm's with higher DER is considered more risky since debt is used more than the equity, it will result in the higher interest rate which will decrease profit. The lower profits will result to the lower value of ROA. So, the increasing of DER value will result in the decreasing of ROA value.

The Relationship between Current Ratio and Profitability

The multiple regression analysis shows that Current Ratio has negative significance effect to the profitability (ROA) of companies listed in LQ45. This result is supported by Fitri Linda Rahmawati (2009) previous finding that DER has negative significant effect to the ROA.

The negative relationship happens because a firm with higher current ratio means that the firm has a higher current assets value since the funds is more allocated in current assets. The firm will lose its opportunity to gain more profit, because instead of investing the funds to gain more profit, the fund is reserved to fulfill the company liquidity. The funds will become idle cash to the company, as the fund is not being used. The higher current assets will increase the number of total assets and it will decrease the value of return on assets since the numerator for ROA is total asset.

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