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EFFECT OF PAYABLE TO PROFITABILITY IN SECTOR COMPANY INFRASTRUCTURE, UTILITIES, AND TRANSPORTATION IN IDX PERIOD 2010 - 2014

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Abstract

This study aims to examine the effect of short terms debt to total asset, long term debt to total asset , total debt to total asset, debt to equity ratio as a independent variables with sales growth and size as a control variable on infrastructure,utilities and transportation industry sector in Indonesia Stock Exchange (IDX) with the period 2010-2014. The variables tested are the variables that can affect profitability. This study uses a quantitative approach to multiple linear regression analysis model. This study used data drawn from infrastructure,utilities and transportation companies listed on Indonesia Stock Exchange for the period 2010-2014. The samples used in this study were 35 companies with 175 observation points at first by using classical. The study findings suggest that short term debt to total asset significant positive effect on the profitability, long term debt to total asset significant positive effect on the profitability, total debt to total asset significant positive effect on the profitability, debt to equity ratio is significantly negative effect on the use of profitability, size as a control variable contributed effect againsts independent variable against the dependent variable, sales growth as a control variable not contributed effect againsts independent variable against the dependent variable.

Keywords: Capital Structure, Profitability, Return on Equity, Size

Abstrak

Penelitian ini bertujuan untuk menguji short terms debt to total asset, long term debt to total asset, total debt to total asset, debt to equity ratio sebagai variabel independen serta sales growth dan size sebagai variabel kontrol terhadap profitability pada perusahaan sektor di Bursa Efek Indonesia (BEI) periode 2010-2014. Variabel-variabel yang diuji ini adalah variabel-variabel yang dapat mempengaruhi penggunaan profitabilitas. Penelitian ini menggunakan pendekatan kuantitatif dengan model analisis regresi linier berganda. Penelitian ini menggunakan sampel berupa perusahaan/emiten yang berada di dalam sektor infrastructure,utilities and transportation di BEI periode 2010-2014. Jumlah sampel yang digunakan dalam penelitian ini sebanyak 35 emiten dengan 175 poin observasi pada dengan menggunakan syarat dan asumsi klasik. Temuan penelitian menunjukkan bahwa short term debt to total asset berpengaruh positif signifikan terhadap profitability, long term debt to total asset berpengaruh positif signifikan terhadap profitability, total debt to total asset berpengaruh positif signifikan terhadap profitability, debt to equity ratio berpengaruh negatif signifikan terhadap profitability, size sebagai variabel kontrol juga memberikan kontribusi pengaruh terhadap variabel independen dan variabel dependen, sales growth sebagai variabel kontrol tidak memberikan kontribusi pengaruh terhadap variabel independen dan variabel dependen.

Kata kunci : Capital Structure, Profitability, Return on Equity, Sales growth, Size

JEL Classification: M20

1. Research Background

The capital structure is a mixture of debt and equity that companies use in their business. Companies can use a combination of debt and their own capital to finance the company's operations. Therefore, one of the goals of the financial manager is to determine the optimal capital structure for the firm (Tailab, 2014, P.1). Capital structure can be said to be optimal when it can reduce the cost of capital and increase profitability.

On the other hand, based on the theory of trade off model, in obtaining optimal capital structure, it is necessary to measure the amount of debt and equity by balancing cost and benefit (Megginson: 1997). Therefore, among all aspects of decision-making on capital investment costs, the most important is the decision on capital structure. Financing from this capital structure can fully affect the profitability of the company.

Some capital structure theories explain in depth about the capital structure of the firm. From the theoretical explanation, researchers from financial management still can not find the optimal proportion of capital structure. The best solution offered by academics and practitioners is the capital structure that can meet the short-term goals of the company.

1.1 Literature Review

1.1.1 Profitability

Profitability is the company's ability to generate profits in a given period. According to Gitman and Zuttler (2012) profitability is the relationship between income and expenses by using the company's earning assets are current assets and fixed assets. Alshatti (2015) states that the definition of profitability is the relationship between the profits generated by companies and investments that contribute in generating profits.

1.1.2 Debt

Debt is defined as all liabilities of the company to pay any amount of money / services / goods in the future to other parties, due to transactions made in the past (Rudianto (2008: 292) in Kalia (2013)). Debts are used if internal funds are insufficient to fund.

1.1.3 Capital Structure

A corporate finance manager is required to be able to manage the capital structure well to get the maximum profit. The composition of the optimal capital structure associated with the selection of sources of funds also greatly affects the value of the company.

According to Ross *et al.,* (2010: 3) capital structure is an arrangement Equity financing and long-term debt to finance the operational activities of a company.

1.1.4 Short-Term Debt to Total Asset

According Riyanto (1995: 227), Short term debt is a debt that is expected to be repaid less than a year. Most of the short term debt consists of trade credit that is credit for the company's operational activities, including credits for bank accounts, credit from the seller, credit from the buyer and the demand credit.

Research conducted by Abor (2005) also stated that the variable of short term debt to total asset has a positive relation to return of equity. This is because, the company will sacrifice a burden / cost to improve profitability (matching principle).

1.1.5 Long-Term Debt to Total Asset

According Riyanto (1995: 227), long term debt is a debt whose tenure is more than ten years. The use of debt that exceeds the optimum point of the firm will lead to a decrease in profitability.

This is consistent with static trade off theory and supported by research conducted by Ardianto and Astuti (2014) and Tailab (2014) where long term debt to total assets negatively affects profitability.

1.1.6 Total Debt to Total Asset

According Murhadi (2013), Total Debt to Total Asset shows how much total assets owned by the company funded creditors. The greater the value of Total Debt to Total Assets will indicate the greater loan capital used for investment in assets and risks will increase.

The results of Ardianto and Astuti (2014) and Tailab (2014) showed that Total debt to total assets negatively affects profitability.

1.1.7 Debt to Equity Ratio

According Murhadi (2013), Debt to Equity Ratio shows the comparison between debt and corporate equity. The greater the value of the Debt to Equity Ratio will indicate the greater the capital of the loan used for investment and will indicate the more risky a company.

This is supported by the theory of static trade off theory (Jahanzeb an *et al.,* (2013), where the use of debt that exceeds the optimal point will result in debt interest expense will be greater than tax benefits.

1.1.8 Size

Size is the size of the company indicated by total assets, total sales, average amount of sales and average total assets (Handayani & Seftianne (2011) in Viandgo (2013).

Size has a positive effect on profitability because the greater the total sales of a company then the company's profits will be even greater. This is in accordance with the results of research from Abor (2005) and Ardianto & Astuti (2014) which states size has a positive effect on profitability.

1.1.9 Sales Growth

Sales growth is defined as an increase in the number of sales from year to year or from time to time (Kesuma (2009) in Hansen and Juniarti (2014)). When a company has increased sales then the company's profits will be even greater. In other words, sales growth has a positive relationship to the profitability of the company.

This is supported by Abor (2005) and Ardianto & Astuti (2014) studies which stated that sales growth is positively related to profitability.

1.2 Research Hypothesis

Based on the formulation of problems and propositions that have been described above, it can be formulated hypothesis below:

H1: It is assumed that the short term debt to total assets has a positive effect on the profitability of the company in the infrastructure, utilities and transportation sectors listed in Indonesia Stock Exchange 2010-2014 period

H2: It is assumed that long term debt to total assets negatively affects the profitability of firms in the infrastructure, utilities and transportation sectors listed in the Indonesia Stock Exchange for the period 2010-2014

H3: It is assumed that total debt to total assets negatively affects the profitability of firms in infrastructure, utilities and transportation sectors listed in Indonesia Stock Exchange 2010-2014 period

H4: It is assumed that debt to equity ratio negatively affects the profitability of firms in the infrastructure, utilities and transportation sectors listed in the Indonesia Stock Exchange for the period 2010-2014

1.3 Data Analysis

Multiple linear regression analysis is used to measure more than one independent variable to dependent variable. To test the effect of independent variables on the dependent variable, the equation model is used as follows:

Model 1

$$\text{Prof} = \beta + \beta 1.\text{SDA} - \beta 4.\text{DER} + \beta 5.\text{SIZE} + \beta 6.\text{SG} + e$$

Model 2

$$Prof = \beta - \beta 2.LDA - \beta 4.DER + \beta 5.SIZE + \beta 6.SG + e$$

Model 3

$$Prof = \beta - \beta 3.TDA - \beta 4.DER + \beta 5.SIZE + \beta 6.SG + e$$

Details :

Prof	= Profitability	SDA	= *Short term debt to total asset*
β	= Constanta	LDA	= *Long term debt to total asset*
β 1,2,3,4	= Regression coefficients of independent variables	TDA	= *Total debt to total asset*
		DER	= *Debt to equity ratio*
β 5,6	= Regression coefficient of control variable	*Size*	= Firm Size
		SG	= Sales Growth
		e	= *Error*

2. Research Method

The type of research used by the author is applied research, because it uses the profitability method that has been used previously. Based on the purpose (based on purpose), this research is included in causal research, because it is conducted to test the influence of independent variables (short term debt to total assets, long term debt to total assets, total debt to total assets, debt to equity ratio, Of total sales) to the dependent variable profitability of infrastructure, utilities, and transportation sector in IDX during 2010-2014 period.

Based on data collection techniques, this research uses experimental techniques, because this research variable is done by repeated testing. Seen from the approach (based on approach), this research is quantitative research, because it involves quantitative data (measurable) in proof of profitability.

The type of data used in this study is secondary data obtained from the company's financial report infrastructure sector, utilities, and transportation listed on the Indonesia Stock Exchange (BEI) in the period 2010 to 2014 and *www.finance.yahoo.com*

Data on profit after tax, total equity, total assets, total sales, short term debt, long term debt, total debt, and total equity are obtained from the financial statements of infrastructure, utilities and transportation companies listed on the Indonesia Stock Exchange 2010 to 2014.

Target population in this research is all company sector of infrastructure, utilities, and transportation which listed in Bursa Efek Indonesia (BEI) period 2010 to 2014, with the following characteristics:

(1) Registered as infrastructure, utilities and transportation sector company from 2010 to 2014 in Bursa Efek Indonesia
(2) Own and issue annual financial statements in a row over the period 2010-2014
(3) Available data for all variables required during the period 2010 - 2014
(4) The Company is not delisted or suspended by the Bursa Efek Indonesia (BEI)

3. Result and Discussion

The new regression equations obtained after meeting the classical assumption test are:

1. PROF = -0.309 + 0,095 SDA -0,025 DER + 0,033 SIZE + 0,013 SG + e
2. PROF = -0.207 + 0.021 LDA -0.028 DER + 0,027 SIZE + 0.011 SG + e
3. PROF = -0.245 + 0.044 TDA -0.028DER + 0,029 SIZE + 0.008 SG + e

While the results of the F test and T test are shown in Table 1.

Table 1. Statistical Test Results F and T on the 3 Regression Equations

No.	Dependent Variables	Independent Variables	Test F	Test T		Hypothesis
1	ROE	Short Term Debt to Total Asset	0.000*	0.095	0.001**	Accepted
		Debt to Equity Ratio		-0.025	0.000**	Accepted
		Size		0.033	0.000	
		Sales Growth		0.013	0.628	
2	ROE	Long Term Devt to Total Asset	0.000*	0.021	0.028*	Rejected
		Debt to Equity Ratio		-0.028	0.000*	Accepted
		Size		0.027	0.004	
		Sales Growth		0.011	0.956	
3	ROE	Total Debt to Total Asset	0.000*	0.044	0.013*	Rejected
		Debt to Equity Ratio		-0.028	0.000**	Accepted
		Size		0.029	0.002	
		Sales Growth		0.008	0.761	

Detail : Significant with α = 5%

Based on data processing on the regression equation, with partial test (t test), then the results of his research are as follows:

1. Influence of Short term debt to total assets against Profitability

In the t-test, the value of short term debt to total asset to profitability of significance value of 0.001 and with a regression coefficient of 0.095. That is, if there is an increase in the short term debt to total assets will be followed by an increase in profitability variables and vice versa.

Variable of short term debt to total asset to profitability have a significant positive effect. This indicates that H1 is accepted. The result of research is consistent with research done by Abor (2005) and Tailab (2014) that is variable of short term of debt to total asset have positive influence to profitability.

2. Effect of Long term debt to total assets against Profitability

In the t test, the value of long term debt to total asset to profitability with regression coefficient value is 0.021 and the value of 0.028 significance. That is, if there is an increase in long term debt to total asset then it will be followed by increase in profitability variable and vice versa. Variable long term debt to total assets have a significant positive effect so that hypothesis 2 is rejected. It also supports research conducted Golconda (2012) which states that long term debt to total assets have a positive and significant impact on profitability.

3. Result of Influence Total debt to total assets against Profitability

In the t-test, the total debt to total asset value of Profitability with regression coefficient is 0,044 and the significance value is 0,013. That is, if there is an increase in total debt to total assets will be followed by an increase in profitability variables and vice versa.Variable The total debt to total asset has a positive significant effect so that hypothesis 3 is not rejected. This result is also in accordance with research conducted by Abor (2005) which states that the total debt to total assets have a positive and significant impact on profitability.

4. Effect of Debt to Equity Ratio asset on Profitability

Debt to Equity Ratio variable has negative influence to profitability on model 1,2 and 3 with significance value less than 0,05. This negative relationship indicates that if there is an increase in the debt of the business entity it will be followed by a decrease in profitability and vice versa. Debt to equity ratio variables have a negative and significant effect on profitability. This indicates that H4 is accepted, Debt to Equity Ratio on profitability equation has negative and significant effect on profitability usage.

5. Effect of Size on Profitability

In the t test, the value of size against profitability on models 1,2 and 3 has a positive influence with significance value below 5%. This positive relationship indicates that firm size will affect the debt relationship to the profitability of the company. Large or small companies will have different effects in debt and profitability relationships. Size control variable has significant influence to the relation of independent variable and dependent variable. This is supported by the research of Abor (2005) and Ardianto and Astuti (2014) that is the size control variable has a significant positive effect on profitability.

6. The influence of Sales growth on Profitability

In t-test, the value of sales growth on profitability in models 1,2 and 3 has a positive influence with a significance value above 5%. This positive relationship indicates that sales growth proved to have no differences in debt relations and probitabilitas between large companies and small companies. The sales growth control variable has no significant influence on other independent variables. This is supported by the research of Septianingsih (2013), which is the control variable of sales growth has no significant positive effect on profitability.

The F statistic test shows the result of independent variables ie short term debt to total asset, long term debt to total asset, total debt to total asset, sales growth, size, and debt to equity ratio together significantly influence profitability measured Through return on equity.

3.1 Coefficient of Determination (R^2)

Model 1

Coefficient of Determination (adjusted R^2) for regression equation for profitability dependent variable with value obtained 0,175.

Model 2

Coefficient of Determination (adjusted R^2) for the regression equation for the profitability dependent variable with the value obtained 0.112.

Model 3

Coefficient of Determination (adjusted R^2) for the regression equation for the profitability dependent variable with the value obtained 0.145.

4. Conclusion

Based on hypothesis test result using simultaneous F test using SPSS 23 program, it can be concluded that variable short-term debt to total asset, long term debt to total asset, total debt to total asset, debt to equity ratio, sales growth, and size of Total sales together have a significant effect on return on equity.

Based on hypothesis test result using t test partially on the regression model can be known there are two accepted hypotheses and two hypotheses rejected. The acceptable hypothesis is H1 and H4, whereas the rejected hypothesis is H2 and H3. H1 stated that short term debt to total assets and debt to equity ratio have a significant positive effect on return on equity. H4 states that debt to equity ratio has a significant negative effect. The rejected hypothesis is H2 which states that long term debt to total asset has a significant negative effect and H3meyatakan that the total debt to total asset variable has a significant negative effect. From the results of the hypothesis that obtained coefficient of determination on the model 1 of 23.9%, the model 2 of 22.9% and in model 3 of 23.3%.

Researchers further suggested to add other financial variables due to relatively low value. This is because there are other variables that have significant influence but not included in the research. In addition, researchers can also expand the sample of the company and add to the study period. This is due to a number of outlier data (extreme data) that cannot be eliminated causing the weakness of the data in this study.

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