THE INFLUENCE OF MODAL STRUCTURE, THE SIZE OF THE COMPANY AND SALES GROWTH ON COMPANIES PROFITABILITY THAT LISTED ON SRI-KEHATI INDEX

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Abstract

The purpose of this paper is investigate the impact of capital structure growth on firm profitability from companies that listed on SRI-KEHATI Indeks in 2011-2015. Independent variable that used to represent firm profitability is Return on Asset (ROA), while the independent variables that used to represent long term debt, short term debt, firm size, and sales growth. The data used in this study is secondary data derived from the financial statements of companies listed in the SRI-KEHATI index period 2011-2015. Data analysis technique in this research use regression analysis of panel data of Fixed Effect Model (FEM). From the test, it can be seen that the variable of long-term debt, short term debt, firm size and sales growth give significant influence to profitability of companies listed in SRI-KEHATI index in 2011-2015 period.

Keywords: capital structure, Profitability, Debt, Sales

Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh *capital structure*, ukuran perusahaan, dan *sales growth* pada profitabilitas perusahaan yang terdaftar dalam Indeks SRI-KEHATI tahun 2011-2015. Variabel dependen untuk mewakili profitabilitas adalah *Return on Asset (ROA)*. Sedangkan variable independen yang digunakan untuk mewakili struktur modal (utang jangka panjang dan utang jangka pendek), ukuran perusahaan, dan *sales growth*. Data yang digunakan dalam penelitian ini adalah data sekunder yang berasal dari laporan keuangan perusahaan-perusahaan yang terdaftar dalam indeks SRI-KEHATI periode 2011-2015. Teknik analisis data dalam penelitian ini menggunakan analisis regresi data panel *Fixed Effect Model* (FEM). Dari pengujian diperoleh hasil bahwa variabel utang jangka panjang, utang jangka pendek, ukuran perusahaan dan *sales growth* memberi pengaruh signifikan terhadap profitabilitas perusahaan yang terdaftar dalam indeks SRI-KEHATI pada periode 2011-2015.

Kata kunci: Struktur Modal, Profitabilitas, Utang, *Sales*

1. Research Background

Today's business world is forming very hard and competitive competition, moreover supported by very fast development in information technology, communication, and external environmental change. Then, those developments must be quickly taken care by company manager so that they can survive in the business competition and also keep the company business continuity.

Business competition is not just about competition between fellow local companies, but also preparation to compete against multinational companies, so that company required to set up mature plan in all company aspects, there is no exception for company financial policies because investor and creditor trusts laid on how the company ability to maintain their liquidity and profitability level.

The establishment and development of a business, company required to manage the important functions within the company effectively and efficiently in order to maximize company profit. Because of that capital need must be adjusted optimally. In determining capital, company can obtain from various sources.

Capital can be obtained from internal or external. Internal capital comes from the retained earning which obtained from previous year earnings. Meanwhile external capital is debt. Beside debt, external capital can also be obtained from issuance of equity or usually called as stocks. Stocks are a form of ownership of a business entity that is traded on the Indonesia Stock Exchange (BEI). Those two capital sources have different risks that must be faced by companies.

Funding alternative choice for company activities have to consider how the company can create profitable combination between the use of stocks capital obtained from capital market which committed by company that has go public or capital came from debt. This thing connects to the company capital structure which defined the right capital use for company between long term debt and stocks capital. Capital structure managed by company so that it is possible to obtain increase in profit which in the end will increase the owner wealth and increase good connections with creditors through the high company values.

Capital structure becomes one of the most important things for financial manager in terms of increasing company profitability. In capital structure, there is an element that involves risk and rate of return. If risk and rate of return expected are getting higher, then company debt is getting higher too, so does if investment risk is low then profit will not meet the manager expectation.

Capital structure used to find the company fund composition between debt or owner's equity. The use of debt intended to get long term profit, that thing is done if the use of debt is lower than capital. The long term debt will increase profit because there is tax protection so that EPS will be bigger. But if company cannot increase the sale and cannot do cost efficiency, company must be ready to experience loss, and so does the opposite. In investing, company must also be prepared for financial risk. The bigger deviation on EPS the financial risk will be the same, and so does the opposite. In order to avoid the risk, company must choose capital market properly, for example the use of debt when the company is not experiencing loss, because if company losses and increasing the debt, it will be very risky for increasing in principal debt interest. If the amount of company debt is high, stock holder commonly increases rate of return which hinted and company financial risk will also increase.

Capital structure is one of the financing activities within the company, because the capital structure proportion will affect the cost of capital. Because of that capital structure becomes the determine factor of company value. Modigliani and Miller (1963) says implicitly that capital structure value can increase the business entity value, but in the other hand it can also increase bankruptcy ratio, which mean that decreasing the business entity value. Capital structure decision is really important for all business organization. In order to maximizing the

return of varieties of company and also the impact of the decision as the company ability to face competitive environment (Joshua Abor 2005).

Capital structure and company performance theory stated by Modigliani Miller (1958) in Varun Dawar (2014) is the important issue within company financial. Although there are any capital structure theory alternatives which have been developed in the past 50 years, optimal determination from capital structure depend on company condition. Some theories related to capital structure are pecking order theory and trade-off theory. According to Dawar, trade-off theory determines the optimal debt level or balance target level between tax savings and bankruptcy cost. Meanwhile what Myers (1984) stated in Varun Dawar (2014) pecking order theory assumed that company external funding hierarchy happens when there is no availability or lack of internal fund. Associated with the connection between those two theories, there are many researchers that conduct their research based on capital structure theory.

Varun Dawar (2014) study the impact of capital market to company performance in India during 2003 to 2012 period. In this research there are some variables which are dependent variable, independent variable, and control variable. Dependent variables used by Darwin are Return on Equity (ROE), Return on Asset (ROA). The research independent variables are Long term debt, and short term debt. Meanwhile the control variables are firm size, firm age, tangibility, sales growth, liquidity and ratio of advertising, distribution and marketing expense. The research result shows that with data cross-section from companies in India, the connection between company capital structure (short term debt and long term debt) and Profitability (ROA and ROE) is negative significant.

Ibrahim El-Sayed (2009) test the company sample that registered in Egypt and uses three accounting steps based on financial performance. Dependent variables used by researcher are ROA, ROE, and Gross Profit Margin. Independent variables are Short Term Debt (STD), Long Term Debt (LTD), and Total Debt (TTD). And control variable used is frim size. Empirical result shows that capital structure (STD and Total Debt) have negative impact to company performance.

Joshua Abor (2005) conducts a research about connection between capital structure and company profitability listed in Ghana Stock Exchange for 5 periods. Dependent variable used in this research is Return On Equity which obtained from Earning Before Interest and Taxes (EBIT)divided by company equity. Independent variable used are short term debt, long term debt, and total debt. Frim size and sales growth become control variable. The research states that short term debt positive significantly impacting Return On Equity, meanwhile long term debt has negative connection with Return On Equity. Regarding the connection between total debt with profitability, the research shows the positive significant connection between Total Debt to Total Capital Ratio (DA) and ROE.

Based on the research result presented, can be concluded that there is no universal theory in capital market selection, company size and active structure in company, whether majority of the company use long term debt or short term debt, choosing large company to increase profitability. This research will test hypothesis related to capital structure and the size of the companies listed in SRI-KEHATI index. From 9 variables that have been tested in previous research, 4 taken as independent variables in this research which are long term debt, short term debt, frim size, and sales growth and then dependent in profitability is Return to Asset.

Company selection above based on company performance which includes in SRIK-KEHATI index if compared with company that is not listed in SRI-KEHATI index like in the previous research. Calculation method used by two index use the same method for calculating the weighted average of listed stocks. In SRI-KEHATI index listed 25 issuers which considered to apply environmentally friendly principal. But it is listed that there are 19 company that listed permanently in SRI-KEHATI index.

SRI-KEHATI index developed by Indonesia Stock Exchange collaborate with

Indonesia Biodiversity Foundation (KEHATI) since 2009. Sri itself is the abbreviation of "Sustainable and Responsible Investment". This index intended for issuers are not just doing business but also take environment and sustainable development into consideration. Because this day, citizen awareness in preserve the environment is increasing including all investor in selecting issuers. Investor will consider which issuer that have concern for environmental conservation and sustainable development.

The company selection mechanism in order to be listed in SRI-KEHATI index conducted in two stages which are negative selection and financial aspect early screening and in the second stage is by fundamental aspect. SRI-KEHATI index consists from 25 issuers has been selected to be listed in it and meet the criteria determined. The main criteria are absolutely about the awareness of living environment, social, and good company governance, it is explained that issuers must work free from environment negative impact such as pesticides, nuclear, weapons, tobacco, alcohol, pornography, gambling, Genetically Modified Organism (GMO). Another criteria includes Total Asset, Price Earning ratio, and Free Float Ratio. The total asset that represent the size of SRI issuer are issuers that have total asset more than Rp 1 billion based on the annual financial audit assessment. Issuers Price Earning Ration which included must be positive, and stockholding free float ration owned by public must be more than 10%.

Next, in order to choose the 25 best stocks, further rating conducted by considering fundamental aspect by considering 6 main factors which include corporate governance, environment, community involvement, business behavior, human resources, and human rights. Assessment review applied to company secondary data, filling out the questionnaire from the company which already through the selection stage above and supported by other relevant data.

Indonesia Stock Exchange and KEHATI foundation routinely supervising the stock component included in the index calculation. Review and stock exchange that included in SRI-KEHATI index conducted every 6 months which in early May and November.

2. Research Method
2.1 Population and Characteristics Target

Data used in this research is secondary data, which is data collected by other party (third party) and does not collected directly by researcher. The data comes from company financial assessment listed in SRI-KEHATI index 2011-2015 period. Population target in this research is the company that listed in SRI-KEHATI index 2011-2015 index. Population characteristic in this research are:

1. Company that publishes company financial data completely during 2011-2015 period.
2. Company that permanently listed in SRI-KEHATI index in 2011-2015 period.
3. Not in the process of delisting in 2011-2015 period.

2.2 Data Processing Method

This research uses data panel regression model in order to test hypothesis used. Data panel regression analysis is regression technique which combines time series and cross section data by using the support of Eviews 8.0 for windows software in order to study the impact of short term debt, long term debt, company size and sales growth to company profitability (ROA). In data processing, it is processed by using 4 stages which are: Method Estimation, Assumption Method, Model Testing, and Result Interpretation. Regression model in panel data built in this research is:

$$ROA = \alpha + \beta_1 \, LNDB + \beta_2 \, SHDB + \beta_4 \, SIZE + \beta_5 \, SALES \, GROWTH + e$$

Information

ROA	: i company *Return on Asset* in t period
α	: i company Coefficient
LNDB	: i company long term debt in t period
SHDB	: i company short term debt in t period
SIZE	: i company size in t period
SALES GROWTH	: i company sales growth in t period
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$	: Regression coefficient
e	: Mistake (*standard error*) = *residual errors*

3. Result and Discussion
3.1 Descriptive Statistic

In this research, researcher uses descriptive statistic in explaining the information or characteristics description from research sample which represents the population.

Table 1. *Descriptive Statistics* **in Company Listed in SRI-KEHATI Index in 2011-2015**

Variables	N	Minimum	Maximum	Mean	Std. Deviation
SHDB	70	0.0645	0.7975	0.2753	0.1730
LNDB	70	0.0154	0.5059	0.1535	0.1146
Size	70	29,4394	33,1340	30,8765	1.0648
Sales Growth	70	0.2314	2.4166	0.9192	0.4723
ROA	70	0.0271	0.4037	0.1390	0.0923
Valid N (list wise)	70				

From table above shows data summary used in this research, in the descriptive table can be seen that the number of observation done is 70. The observation itself consist of Indonesia Stock Exchange members (BEI) listed in SRI-KEHATI index also from 2014 to 2017. From the table can be known that short term debt (SHDB) variable has the minimum number of 0.0645, maximum number of 0.7975, mean of 0.2753, and deviation standard value of 0.1730. long term debt (LNDB) variable has minimum value of 0.01542, maximum value of 0.5059, mean of 0.1535, and deviation standard value of 0.1146. company size variable has minimum value of 29.4349, maximum value of 33.1340, mean of 30.8765, and deviation standard value of 1.0648. sales growth variable has minimum value of 0.2314, maximum value of 2.4166, mean of 0.9192, amd deviation standard value of 0.4732. Profitability variable (ROA) has minimum value of 0.0271, maximum value of 0.4037, mean of 0.1390, and deviation standard value of 0.0923.

Variable with highest average value (mean) is size variable which is 30.8765 and for lowest deviation standard variable is ROA variable which is 0.0923. the higher deviation standard value representing higher range of value of the variable, so does the opposite.

3.2 Regression Value (*Fixed Effect Model*)
Below presented the test result

Table 2. Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
	1.598765	0.419089	3.814855	0.0004
SHDB	-0.325038 **	0.069036	-4.708252	0.0000
LNDB	-0.414487 **	0.069813	-5.937065	0.0000
SIZE	-0.043960 **	0.013336	-3.296249	0.0018
SALES GROWTH	0.055229 **	0.027051	2.041614	0.0463

R-squared	0.957889	Mean dependent var	0.139063
Adjusted R-squared	0.944122	S.D. dependent var	0.092356
S.E. of regression	0.021832	Akaike info criterion	-4.593887
Sum squared resid	0.024784	Schwarz criterion	-4.015702
Log likelihood	178.7860	Hannan-Quinn criter.	-4.364225
F-statistic	69.57840	Durbin-Watson stat	1.797324
Prob(F-statistic)	0.000000		

** significance level is 0,05

In table 4.2 resulting constant value which has positive value, this thing means that when all variables (SHDB, LNDB, SIZE, dan SALES) is 0 then the regression value will increase as much as the constant value.

Short term debt (SHDB) value has regression coefficient value of 0.325. this value shows that there is negative impact between short term debt variable (SHDB) with return of asset (ROA). This coefficient value also has meaning with the increase in one unit of short-term debt variable (SHDB) with the assumption that the other independent variable is till or constant then return on asset (ROA) variable value will decrease as much as 0.325.

Long term debt (LNDB) variable value has regression coefficient value of 0.414. this value shows that there is negative impact between long term debt (LNDB) variable with return on asset (ROA). This coefficient value also has meaning with the increase in one unit of long term debt variable (LNDB) with the assumption that the other independent variable is till or constant then return on asset (ROA) variable value will decrease as much as 0.414.

Company size (SIZE) variable value has regression coefficient value of 0.043. this value shows that there is negative impact between company size (SIZE) variable with return on asset (ROA). This coefficient value also has meaning with the increase in one unit of company size (SIZE) with the assumption that the other independent variable is till or constant then return on asset (ROA) variable value will decrease as much as 0.043.

Company sales growth (SALES) variable value has regression coefficient value of 0.055. this value shows that there is negative impact between company sales growth (SALES) variable with return on asset (ROA). This coefficient value also has meaning with the increase in one unit of company sales growth (SALES) with the assumption that the other independent variable is till or constant then return on asset (ROA) variable value will decrease as much as 0.055.

3.3 Hypothesis Testing Result
3.3.1 F Testing Result

F testing use in order to know whether independent variables together have the same significant impact to dependent variable. In order to know that, F testing can be conducted in multiple linear regression model by Fixed Effect Model. F testing result can be seen from F-statistic probability. The lower F-statistic probability value, the stronger independent variable impact to dependent variable.

From table 4.2 can be seen that F-statistic probability is 0.000000. With that, it can be stated that long term debt, short term debt, company size, and sales growth variable together have significant impact to company profitability (Return on Asset).

3.3.2 T testing Result

T testing tests the impact of each independent variable individually to dependent variable. Partial testing which conducted by t testing to variables examined, known that short term debt has significance level of 0.0000, with negative significance result. That result is suitable with the research hypothesis that short term debt has negative impact to company liquidity whereas the bigger short term debt the smaller current asset owned by company. That

thing happens because company must pay short term debt so that company profitability will decrease. The research result is in accordance with the research conducted by Dawar (2014). Short Term Debt becomes company capital external structure, but if both of them are increasing does not mean that company performance increases. This thing does not refer to agency theory which explains that debt can decrease agency conflict. If company decides to use the capital external, manager must be discipline to managerial behavior to stock holder. The discipline needs incentive in order to increase company observation, but what happen is the opposite in the end the manager will decrease debtor incentive and affecting to company performance.

Partial testing which done by t testing to examined variables, known that long term debt has significance value of 0.000, with negative significant result. The result is in accordance with research hypothesis that the higher long term debt owned by a company will decrease the profitability because company has the risk of the debt that must be paid. The research result also in accordance with the research conducted by Chiang, Chang, and Hui (2002). A manager cannot use excessive leverage number in capital structure because if company uses excessive external capital structure then manager must fund projects using retained earning and leverage as the last option. Manager must work hard in order to achieve optimum capital structure level in order to maximizing company performance and try to maintain it as good as possible.

Partial testing done by t testing to examined variables, known that frim size has significance level of 0.0018, with negative significant result. That result is not in accordance with the research hypothesis. Stierwald (2009) says that the company size has positive impact in profitability if a bigger company will get benefit from economies of scope, exploits economical scale or access capital in lower cost compares to smaller company. The higher the productivity, the higher company profitability would be. The finding which conducted by Feeny (2000) and Stierwald (2009) proves that size has positive impact to company profitability. Research result is in accordance with Meca & Ballesta (2011) and De Miguel et al. (2004), in Hariyanto and Juniarti (2014) that negative connection shows that hypothesis 3 is rejected, negative connection shows that if size increases, the ROA will not increase. The bigger the company shows a bigger company organization structure so that the possibility is become increasingly bureaucratic. This thing causes more serious problem such as asymmetrical information and slow decision taking. Another explanation also supports that the bigger the company size then the stock return will be smaller because if company size is bigger it can be said that the stock price is relatively high and stable compare to smaller or second line company. With that the small stock fluctuation number will cause low stock return and affecting the company profitability, Murhadi (2011). Stock return decreasing will happen because of the possibility of company profitability decreasing.

Partial testing that done by t testing to examined variable, known that sales growth has significance level of 0.0463, with positive significant result. The result is in accordance with the hypothesis that sales growth defined as sales changes per year. Kesuma (2009) in Hansen and Juniarti (2014) say that sales growth is the increasing in sales number from year to year or time to time. Sales growth has impact in increasing company profitability and value. Sales growth marked by the increasing in market share which impacting the increasing in sales from company so that increasing also company profitability (Pagano and Schlvardi, 2003). Research result is in accordance with Deitina (2011) in research from Limbago and Juniarti (2014) also, whereas sales growth is the component to rate company prospect in future by looking at the total company sales change.

3.3.3 Determination Coefficient (R^2)

Coefficient determination (Adjusted R^2) is 0.944. This thing shows that Return on Assets (ROA) can be explained by long term debt, short term debt, company size, and sales growth variables of 94.4% meanwhile the rest 5% explained by another variable out of the

variable examined.

4. Conclusion

From the hypothesis testing using test F, obtained count value of 69.578 with significance level of 0.000 in significance level of 0.05 then it can be stated that independent variables (long term debt, short term debt, company size, and sales growth) which represent capital structure affecting dependent variable (Return on Assets) in 5% significance level.

Based in test result using t testing, known that long term debt variable has significant negative impact to profitability, short term debt has significant negative impact to profitability, company size has significant negative impact to profitability, and sales growth has positive significant impact to profitability in business entity listed in SRI-KEHATI index in 2011-2015 period.

Based in determination coefficient (Adjusted R^2) value of 0.944. this result shows that Return on Asset (ROA) change can be explained by long term debt, short term debt, company size, and sales growth variables of 94.4% meanwhile the rest 5.6% can be explained by another variable outside of long term debt, short term debt, company size, and sales growth. This thing shows that variable used in this research with business entity sample listed in SRI-KEHATI index in 2011-2015 period can explain company profitability measured by using ROA

Every company must desire high profitability, because of that the company need to pay attention to the capital structure. The using of long term or short term debt must be optimum so it can maximize stock holder profit. Besides that, company also need to pay attention to sales growth and company size. If company has big size, that thing can possibly be asymmetrical information and complicated bureaucracy so that it affects the company profitability.

This research is limited in testing the impact between independent variables to dependent variable. For other researcher, can develop by conduct future research about interaction between one independent variable to another independent variable testing, especially between debt and sales. Besides that, researcher can develop research by using independent variable that yet to be tested and also use bigger research sample.

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