Effect of Asset Structure and Firm Size on Capital Structure (Case Study on Food and Beverage Companies on the Indonesian Stock Exchange)

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ABSTRACT

The calculation results obtained by using multiple linear regression model analysis shows that the asset structure and company size simultaneously or simultaneously have a positive and significant effect on the capital structure. This is supported by the F-count value of 24,957 at a significance level of 0.000 which is smaller than 0.05, which means that the F-count value is greater than the F-table value, which is 24.957 > 3.134. Asset structure partially has a negative and significant effect on capital structure. This is supported by the t-count value of -4.813 at a significance level of 0.000 which is smaller than 0.05 which means that the t-count value is smaller than the t-table value, namely -4.813 <1.994. Firm size partially positive and significant effect on capital structure. This is supported by the t-count value of 4.922 at a significance level of 0.000 which is smaller than 0.05, which means that the t-count value is greater than the t-table value, namely 4.922 > 1.994.

Keywords – Asset Structure, Company Size, and Capital Structure

INTRODUCTION

In the current development of the modern era of globalization, the existence of a company in the economic competition map is experiencing very high competition (1). Both facing competitors from domestic companies and foreign companies that have abundant capital. So that there will be the higher competition that will be faced by a company in developing and expanding their market, thus we need an appropriate policy to maintain the survival of the company so that it continues to exist and develop in the future.

Several things need to be considered by financial management in determining the source of funding, some factors that influence the source of funding, including sales growth rate, sales stability, asset structure, management attitude, lender attitude, profitability, rival structure, and industry characteristics (2).

Meanwhile, to measure the capital structure, it is measured by the ratio of total debt to equity which is usually measured by the debt to equity ratio. The choice of capital structure made by the company, besides being influenced by the size of the cost of debt or

own capital, there are other factors that generally can affect the source of funding, including company size, dividend payments, sales, company assets, company growth, profits (profitability). , tax, management, leverage, liquidity, nondebt tax, business risk, and so on (3).

Of these factors, the effect on the capital structure and financial performance are not the same, of course, it depends on the type of company or business in which the company carries out activities or operates. Many studies have been conducted on the factors that affect the capital structure. However, from several previous studies, there are inconsistencies in the results, where there are variables that affect the capital structure while in other studies these variables have no influence (4). In this study, the object of research used is Food and Beverage companies listed on the Indonesian stock exchange.

METHODOLOGY

This research is classified as a type of hypothesis-testing research. The variables used in this study are Capital Structure (dependent variable), Asset Structure, and Firm Size (independent variable). In this study, the research object was selected on the Indonesian Stock Exchange with the focus of research on food and beverage companies listed on the Indonesian stock exchange and having published financial reports from 2011 to 2015. The data used in this study is quantitative. namely data in the form of numbers that are analyzed using being classified and calculated to get the right results. The data analysis method used in this research is the multiple linear regression analysis methods (5).

RESULTS

Descriptive Analysis

To determine the effect of one variable on other variables, it is very appropriate to use a multiple linear regression approach, where the estimation of the value of multiple linear regression parameters using the SPSS 16 for windows program on the financial statement data of 14 food and beverage companies listed on the Indonesia Stock Exchange for the period 2011–2015, where the independent variables are asset structure (X1) and firm size (X2), and the dependent variable is capital structure (Y).

Descriptive analysis is an analysis based on the activities of collecting, processing, and then presenting the results of data processing in the form of a list of descriptive tables (6). A descriptive summary is made in the form of a table showing the difference in the mean score (mean) of each research variable. As shown in Table 1, as follows:

Table 1. Descriptive Statistics

	Mean	Std. Deviation	N
Structure_Capital	0,36	0,294	70
Structure_Activities	1,36	0,981	70
Company_Size	12,32	0,675	70

Source: Data processed by SPSS 16 for windows, 2017

Table 1 shows that the number of data entered is 70 data samples, with the results of the analysis as follows: 1) Capital structure, during the study period it is seen that the calculated mean (average) capital structure is 0.36 and the standard deviation is 0.294. ; 2) Asset structure, during the research period, it can be seen that the mean (average) asset structure calculated is 1.36, it can be explained that the performance of food and beverage companies in managing capital to increase capital structure changes on average by 0.981; 3) Company size, during the research period, it can be seen that the mean (average) size of the company calculated is 12.32, it can be explained that the performance of food and beverage companies in managing assets to increase capital structure changes on average by 0.675.

Classic assumption test

Multicollinearity Multiple Regression Assumption Test

To see whether there is multicollinearity in this study, it can be seen through the results of the calculation of the value of the variance inflating factor (VIF), where if the value of the variance inflating factor with a tolerance number is close to 1, the data presented does not occur multicollinearity (7). From the results of data processing of financial statements of food and beverage companies listed on the IDX, it shows that the variables analyzed for the value of the inflating factor and the tolerance number indicate that there is no multicollinearity, with the VIF value of 1,000, then the cut off value used to indicate the presence of multicollinearity is tolerance < 0.10; then multicollinearity occurs, but if the tolerance value is > 0.10, then there is no multicollinearity.

The results of the multicollinearity test in this study indicate that there is no correlation value between the independent variables because the value is > 0.10, then there is no multicollinearity, as shown in Table 2 as follows:

Table 2. Multicollinearity Test Results

Colinearity Statistics		
Independent Variable	**Tolerance**	**VIF**
Asset Structure (X1)	0,997	1,003
Company Size (X2)	0,997	1,003

Source: Primary Data After Processing in 2017

Based on the test results in Table 2, the VIF value for all variables has a value less than 5, so it can be concluded that there are no symptoms of multicollinearity between independent variables.

Heteroscedasticity Multiple Regression Assumption Test

The heteroscedasticity assumption test is intended to determine whether the absolute residual variation is the same (homoscedasticity) or not the same (heteroscedasticity) for all observations. If the assumption of non-occurrence of heteroscedasticity is not met, then

the estimator becomes inefficient in both small and large samples and the estimated coefficient can be said to be less accurate (8). For more details, the research results can be seen in Figure 1 as follows:

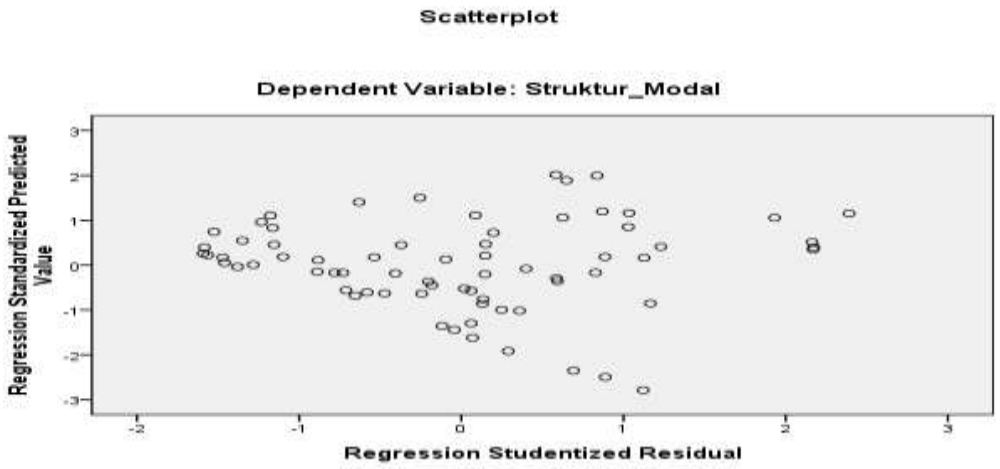

Figure 1. Heteroscedasticity Assumption Test

Based on the scatterplot diagram above, it can be seen that the points spread randomly and are spread both below and above the number 0 on the Y axis, this shows that there is no heteroscedasticity of the regression model, so the regression model is feasible to use to predict asset structure and firm size based on input variables. independent capital structure.

Normality Multiple Regression Assumption Test

Normality test is used to test whether, in a regression model, the dependent variable and the independent variable are normally distributed or not. To detect it, you can look at the spread of data (dots) on the diagonal axis of the graph spread around and follow the diagonal line (9). For details can be seen in Figure 2 as follows:

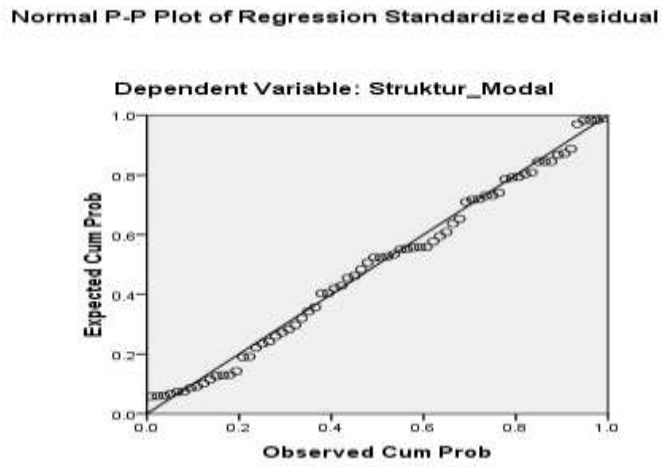

Figure 2. Normality Assumption Test

The results of the graphical analysis in Figure 2 shows that the data points spread around the diagonal line and the distribution follow the direction of the diagonal line so that the assumption of normality can be fulfilled.

Autocorrelation Multiple Regression Assumption Test

In the assumption of the regression model, autocorrelation is defined as the occurrence of a correlation between observational data, where the emergence of one data is influenced by other data. A good regression model is a regression that is free from autocorrelation, to find out whether or not the regression is free from autocorrelation by looking at the Durbin Watson value which is close to 2 or more (10). Detect the presence of autocorrelation, in the regression equation model by passing Durbin Watson according to the following conditions:

DW < 1,10 = there is autocorrelation
DW 1,11 – 1,54 = without conclusion
DW 1,55 – 2,46 = no autocorrelation
DW 2,47 – 2,90 = without conclusion
DW > 2,91 = there is autocorrelation

In this study, it is known that the value of Durbin Watson is 2.811, thus by the assumptions put forward by Gujarati, the regression model in this study is free from autocorrelation at the level without conclusions.

Analysis of Research Results

Multiple Linear Regression Analysis

In performing multiple linear regression analysis, at least it will discuss the correlation coefficient, the coefficient of determination, the regression equation, the

regression coefficient, and also the partial correlation coefficient for regression involving more than one independent variable (11).

Data that has been obtained from the results of research in the field, then analyzed using qualitative and quantitative analysis, where quantitative analysis is used to prove the proposed hypothesis by using multiple linear regression analysis tools, while qualitative analysis itself is used to explain the evidence from quantitative analysis (12).

Proof with qualitative analysis is intended to test the variation of the multiple linear regression model used in explaining the independent variable (X) to the dependent variable (Y) by testing the significance of the regression coefficient (8).

The results of calculations using the regression model (Regression Model) are obtained with multiple linear regression coefficient values, as shown in Table 3 as follows:

Table 3. Multiple Linear Regression Processing Results

Dependent Variable Y = Modal Structure

Variable	Reg. Coef	Std. Error	Beta	t Count	t Table	Sig
C = Constanta	-1.911	0,502		-3,808		0,000
X1 = Asset Structure	-0,134	0,028	-0,446	-4,813	1,994	0,000
X2 = Company Size	0,199	0,040	0,456	4,922	1,994	0,000
R = 0,653		F- Count = 24,957				
R-*Square* = 0,427		F- Table = 3,134				
Durbin Watson = 2,811		Sig. F = 0,000				

Source: Processed results of 2017 data

Based on the calculation results obtained, shown in Table 3 above, the regression equation is obtained which is stated as follows:

Y = -1,911 + -0,134 (X1) + 0,199 (X2)

In the multiple linear regression model equation, the regression coefficient value of the independent variable (X) is obtained, namely the asset structure (X1) is negative and firm size (X2) is positive, the coefficient value of the independent variable is negative, meaning that if there is a change in the independent variable (X), it will cause the opposite change in the dependent variable (Y) namely the capital structure, and vice versa. In other words, the capital structure variable (Y) is = -1.911 if there is no influence from the asset structure variable (X1) and firm size (X2) or equal to 0 (zero), while the capital structure variable (Y) will decrease by - 0.134 from the constant value -1.911 if there is an increase of 1 (one) value in the asset structure variable (X1) assuming there is no influence from the firm size variable (X2) or equal to 0 (zero), as well as the firm size variable (X2) if there is an increase of 1 (one) value, it will increase the capital structure variable (Y) by 0.199 from a constant value of -1.911 with the assumption that there is no influence from the asset structure variable (X1) or equal to 0 (zero).

Meanwhile, the correlation coefficient value of 0.653 indicates that there is a moderate relationship between the asset structure variable (X1), firm size (X2), and the capital structure variable (Y), with a coefficient interval of 0.50–0.699 (Sugiyono, 2004). Likewise, the R Square (coefficient of determination) of 0.427 indicates that 42.7% of capital structure is determined by the asset structure variable (X1) and firm size (X2), so there are 67.3% of other variables that do not explain the capital structure variable and which not identified in this study, namely profitability, liquidity, stock prices, firm value, and growth opportunity.

F Uji test

The F test was conducted to see the effect of all independent variables together (simultaneously) on the dependent variable (13).

Simultaneous Effect of Asset Structure (X1) and Firm Size (X2) on Capital Structure (Y)

Based on Table 3 above, it can be seen that in the test the F-count results are 24,957 with a significance level of 0.000 which is smaller than 0.05, where the F-count value (24.957) is greater than the F-table value; As for the F-table value (significance 5% with df1 = 3-1 = 2, and df2 = 85-2-1 = 82) is 3.134, then Ho is rejected and Ha is accepted. It means that the asset structure and company size simultaneously or simultaneously have a positive effect on the capital structure.

Thus, the first hypothesis states that the asset structure and company size simultaneously have a positive and significant effect on the capital structure of food and beverage companies listed on the IDX. Proven and accepted. The results of this study indicate that the structure of owned assets that can be used as collateral for debt tends to use relatively large debt, and the larger the size of the company, the greater the opportunity to obtain foreign capital so that it can improve the company's capital structure.

T Uji test

The t-test was conducted to see whether each independent variable significantly affected the dependent variable or not (14). By using a significance level of 5%, the following are the results of the t-test carried out.

Asset Structure (X1) Partial and Significant Effect on Capital Structure (Y)

Based on Table 3 above, it can be seen that the second hypothesis test is that the asset structure variable has an at-count of -4.813 with a significance level of 0.000 which is smaller than 0.05, meaning that it is significant, where the t-count value (-4.813) is more negative. greater than the t-table value; as for the t-table value (2-sided test, 2.5% significance with (df) = 85-2-1 = 82) is 1.994. Significant here means that the hypothesis is rejected. This means that the asset structure partially has a negative and significant effect on the capital structure.

Thus, the second hypothesis which states that the asset structure partially has a significant effect on the capital structure can be rejected. The results of this study indicate that an increase in asset structure will have implications for a decrease in the capital structure of food and beverage companies listed on the Indonesia Stock Exchange (IDX).

Company Size (X2) Partial and Significant Effect on Capital Structure (Y)

Based on Table 3 above, it can be seen that the results of the hypothesis testing of the three firm size variables have an at-count value of 4.922 with a significant level of 0.000 which is smaller than 0.05, meaning that it is significant, where the t-count value (4.922) is greater than the t-value. -table; as for the t-table value (2-sided test, 2.5% significance with (df) = 85-2-1 = 82) is 1.994. Significant here means that the hypothesis is accepted. This means that the size of the company partially has a significant effect on the capital structure of food and beverage companies listed on the IDX. Thus, the third hypothesis which states that firm size partially has a positive and significant effect on capital structure is proven and accepted. The results of this study indicate that the larger the size of the company it will be able to increase the capital structure.

DISCUSSION

Simultaneous Effect of Variable Asset Structure and Firm Size on Capital Structure

Capital is a right or part-owned by a company consisting of foreign capital and own capital (15). The balance between all foreign capital and own capital is called the financial structure, while the long-term balance between foreign capital and own capital will form the capital structure. According to Rodoni and Indoyama (2007: 45), capital structure is something related to the company's permanent spending structure consisting of long-term debt and own capital (16).

The results of this study indicate that the variable asset structure (X1) and firm size (X2) have a simultaneous and significant influence on the capital structure of food and beverage companies listed on the Stock Exchange, with the contribution of the correlation coefficient (R) of 0.653 or at the level of moderate relationship with coefficient interval 0.50 – 0.699. This means that the variables of asset structure and company size have a relationship (influence) on the capital structure of food and beverage companies listed on the BEI.

Can explain that the structure of assets and company size can play a role in the acquisition of foreign capital that is long-term debt. Where companies that have long-term fixed assets, then company will use long-term hitpotik debt financing, with the hope that these assets can be used to cover their debts. Companies that have assets that can be used as debt collateral tend to use relatively large debt. Likewise with the size of the company, the larger the size of a company, the tendency to use foreign capital will also be greater. This is because large companies require larger funds to support their operations and one alternative to fulfill it is with foreign capital if the own capital is not sufficient.

Effect of Asset Structure on Capital Structure

The results of this study indicate that the asset structure variable partially has a negative and significant effect on the capital structure of food and beverage companies listed on the Stock Exchange, where the t-count X1 = -4.813 at an error level of 5% or a probability value of 0.05> 0.000, this shows that most industrial companies where most of their capital is embedded in fixed assets and prioritizes meeting their capital needs from permanent capital, namely own capital, while foreign capital is complementary, so this will affect the capital structure of food and beverage companies that listed on the IDX.

The results of the analysis of this study indicate that the asset structure hurts the capital structure of food and beverage companies listed on the IDX. This can be related to the existence of a horizontal conservative financial structure rule which states that the amount of own capital should at least be able to cover the total fixed assets plus other permanent assets. And companies that mostly use their assets (current assets) will prioritize meeting their funding needs with short-term debt. So it can be said that the asset structure should influence the capital structure. However, in food and beverage companies listed on the IDX, the amount of own capital is not sufficient to cover the number of fixed assets or other assets that are permanent so that the use of short-term debt is greater than the long-term debt which can lead to a decline in the capital structure of listed food and beverage companies. on the IDX.

Effect of Firm Size on Capital Structure

The results of this study indicate that the firm size variable has a positive and significant effect on the capital structure of food and beverage companies listed on the Indonesia Stock Exchange, where the t-count X2 = 4.922 at an error level of 5% or a probability value of 0.05 > 0.000. that the variable company size (X2) partially has a significant effect on the variable capital structure of food and beverage companies listed on the Stock Exchange (Y).

The results of the analysis of this study indicate that the size of the company has a significant effect on the capital structure, it can be explained that the food and beverage companies listed on the BEI are companies that have an average total net sales for the year concerned until several years later. In this case, sales are greater than variable costs and fixed costs, with the acquisition of a fairly large amount of revenue.

CONCLUSIONS

This study concludes that the asset structure and firm size simultaneously or simultaneously have a positive and significant effect on the Capital Structure. This is supported by the F-count value of 24,957 at a significance level of 0.000 which is smaller than 0.05, which means that the F-count value is greater than the F-table value, which is 24.957 > 3.134. Furthermore, the asset structure partially has a negative and significant effect on the Capital Structure. This is supported by the t-count value of -4.813 at a significance level of 0.000 which is smaller than 0.05 which means that the t-count value is

smaller than the t-table value, namely -4.813 <1.994. And the size of the company partially positive and significant effect on the Capital Structure. This is supported by the t-count value of 4.922 at a significance level of 0.000 which is smaller than 0.05, which means that the t-count value is greater than the t-table value, namely 4.922 > 1.994.

SUGGESTION

The recommendations for the companies selected in this study only came from food and beverage companies listed on the IDX. This may cause problems in the level of representation of financial statement data. Therefore, in the next research, companies can still be expanded, for example manufacturing companies, banking, and insurance companies listed on the IDX.

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