

The Effect of Profitability, Business Risk, Sales Growth, and Company Size on Capital Structure

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Abstract: The capital structure is a comparison between long-term debt and equity. The capital structure in a company generally consists of two components, such as foreign capital and own capital. To find out what can affect the capital structure, several factors need to be considered, such as profitability, business risk, sales growth, and company size. This study aims to determine the effect of profitability, business risk, sales growth, and company size on the capital structure of the food and beverage sub-sector manufacturing companies listed on the IDX for the 2017-2019 period. This research was conducted on the IDX using a sample of 17 companies obtained based on purposive sampling method and the data were analyzed using multiple linear regression analysis techniques. Based on the analysis, it was found that profitability and firm size had no effect on capital structure, while business risk and sales growth had an effect on the capital structure of the food and beverage sub-sector manufacturing companies listed on the IDX.

Keywords: Profitability, Business Risk, Sales Growth, Company Size, Capital Structure.

I. INTRODUCTION

The main goal of the company is to be able to maximize the value of the company. This can be done by optimizing the company's capital structure. The company's capital structure has an important role because it can affect the financial condition of a company and can affect the stock price of a company. The capital structure is used to regulate the company's funding needs which can come from internal and external funds, so that capital requirements are important in maintaining and ensuring the continuity of the company in addition to other supporting factors. Irham Fahmi (2015: 184) states that the structure is a description of the form of the company's financial proportion, such as the capital owned by long-term liabilities and its shareholders' equity which is a source of financing for a company. The components of the capital structure are composed of foreign capital and own capital. Foreign capital or debt is capital originating from outside the company that is temporarily working for the company and for the company related to that capital is debt which is up to the time of repayment.

Riyanto (2008: 297-300) states that the factors that affect the capital structure are interest rates, stability of earnings, composition of assets, risk level of assets, the amount of capital required, the state of the capital market, the nature of management, the size of a company. There is a relationship and the influence of factors that affect the capital structure itself, such as the variables of profitability, business risk, growth, and company size. Gamaliel and Sudjarni (2015), Kartika and Dana (2015), Pertiwi and Artini (2014), which found that profitability has a negative effect on capital structure. This is because companies that have a high level of profitability tend to choose to use this level of profitability for company operations rather than having to increase their debt levels.

The business risk variable also has a contradiction. Business risk is the risk of a company when it is unable to cover its operational costs and is affected by revenue and cost stability. Companies with high business risk tend to avoid funding using debt compared to companies with lower business risk. Research conducted by Buana and Khafid., (2018) on property and real estate companies listed on the Indonesia Stock Exchange (IDX) found that business risk has a negative effect on capital structure. Companies with high business risk will prioritize internal funding to avoid increasing business

risks that can lead to bankruptcy. Growth is an opportunity for a company to grow in the future. Lusiana and Sudarma (2018) in their research conducted on mining service companies listed on the Indonesia Stock Exchange concluded that growth has a significant effect on capital structure.

II. LITERATURE REVIEW

Agency Theory

Agency relationships arise when one or more individuals assess other individuals to act on their behalf, delegating decision-making power to agents and their employees. In the context of financial management, this relationship arises between shareholders and managers, as well as shareholders and creditors. Shareholders want managers to work with the aim of maximizing shareholder prosperity. Conversely, company managers may act not to maximize shareholder prosperity, but to maximize their own prosperity. To be able to perform its functions properly, management must be provided with adequate incentives and supervision.

Balancing Theories

Balancing theories is a policy imposed by companies to get additional funds by seeking loans either from banks or by issuing bonds. Bonds are commercial papers which state the nominal value, interest rate and time period over which they are issued by companies and the government which are then sold to the public. It can be concluded that selling bonds means that it owes the public or the company adds its long-term liabilities. So the application of balancing theories also allows a government to apply by making loans to foreign parties such as foreign governments or to international donor institutions such as the World Bank, International Monetary Fund, Asian Development Bank, and other institutions.

Pecking Order Theory

The pecking order theory can explain why companies that have a high level of profit actually have a lower level of debt. This small debt level is not caused by the company having a small target debt level, but because they do not need external funds. The high level of profit makes their internal funds sufficient to fulfill investment needs.

III. RESEARCH METHODOLOGY

3.1 Research GAP

From several descriptions of the research results, there is a research gap due to differences in the results of research on the capital structure. In this research, it will be applied to manufacturing companies in the food and beverage sub-sector listed on the Indonesian stock exchange. The food and beverage sub-sector manufacturing company was chosen because it shows an interesting phenomenon, such as in Indonesia, the food and beverage industry companies are increasing in number because it is one of the primary needs, so that the food and beverage sub-sector manufacturing company is a business opportunity that has good prospects. This is accompanied by manufacturing companies in the food and beverage sub-sector generally going public to obtain additional capital. This was proven during the global crisis that occurred in mid-2008, only the food and beverage industry was able to survive (Chatib in compass, 2009).

3.2 HYPOTHESIS

- Profitability has a significant negative effect on the capital structure of the food and beverage sub-sector manufacturing companies listed on the IDX
- Business risk has a significant negative effect on the capital structure of the food and beverage sub-sector manufacturing companies listed on the IDX
- Sales growth has a significant positive effect on the capital structure of the food and beverage sub-sector manufacturing companies listed on the IDX
- Company size has a significant positive effect on the capital structure of the food and beverage sub-sector manufacturing companies listed on the IDX

3.3 RESEARCH METHODOLOGY

This study uses an associative research design which serves to explain the effect of profitability, business risk, sales growth, and company size on the capital structure of the food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange (IDX). The capital structure in this study is measured by the Debt Equity Ratio (DER) reflecting the large proportion between total debt and total shareholder's equity. In this study, the ratio used is return on

common equity (ROE). Profitability is expressed in percentage units obtained from the company's financial statements each year. In this study, the measurement of business risk uses the standard deviation of earning before income and tax (EBIT) divided by total assets. Sales growth is expressed in percentage units obtained from the company's financial statements each year. Company size is a measure of the assets owned by the company. Qualitative data used in this study is a list of names of manufacturing companies in the food and beverage sub-sector on the Indonesia Stock Exchange. Quantitative data in this study are the financial statements of the food and beverage sub-sector manufacturing companies on the Indonesia Stock Exchange.

SECONDARY DATA: The data source in this study is secondary data by accessing the annual financial reports of the food and beverage sub-sector manufacturing companies on the Indonesia Stock Exchange through www.idx.co.id.

DATA COLLECTION:

The data collection method used in this study is non-participant observation. This method can obtain data by studying descriptions both from books, journals, theses and quoting notes obtained from the Indonesia Stock Exchange (IDX) documents in the form of summaries of financial reports and annual reports of food and beverage sub-sector manufacturing companies from the year 2017-2019 on the Indonesia Stock Exchange (IDX) website, namely www.idx.co.id.

DATA ANALYSIS TECHNIQUE:

Testing the hypothesis of this study using multiple linear regression analysis. The multiple linear regression equation can be formulated as follows:

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

Explanation:

- Y = Capital Structure (DER)
- b0 = Constant
- b1 = Profitability variable regression coefficient
- X1 = Profitability
- b2 = Business Risk variable regression coefficient
- X2 = Business Risk
- b3 = Sales Growth variable regression coefficient
- X3 = Sales Growth
- b4 = Company size variable regression coefficient
- X4 = Company Size
- e = Residual

IV. RESULT & ANALYSIS

1. DESCRIPTIVE STATISTICAL ANALYSIS RESULTS

Table 1: Values of the Descriptive Statistics of Research Variables

Variabel	Mean	SD	Min	Maks
ROE (%)	0,172	0,281	-0,68	1,24
Brisk (%)	0,147	0,171	-0,07	0,80
Sales Growth (%)	0,014	0,324	-2,11	0,33
Size	21,114	5,918	13,62	30,58
DER (%)	0,939	0,878	-2,13	3,34

Note: SD = standard deviation; Min = minimum; Max = maximum

Source: Research Data, 2021

Profitability is shown by the ROE proxy, with the size of the 51 samples of manufacturing companies in the food and beverage sub-sector having an average value (mean) of 0.172, a maximum value of 1.24, an average (mean) of 0.172, and a standard deviation of 0,28. The average value (mean) is smaller than the standard deviation of 0.172 <0.281, this indicates that the data distribution is not good. The highest ROE is at PT Multi Bintang Indonesia (MLBI) of 1.24, while the lowest ROE occurred at PT Tiga Pilar Sejahtera Food (AISA) of -0.68.

Business risk is shown by the Brisk proxy with the size of the 51 samples of manufacturing companies in the food and beverage sub-sector having a maximum value of 0.80, a minimum value of -0.07, an average value (mean) of 0.147, and a standard deviation of 0.171. The average value (mean) is smaller than the standard deviation of 0.147 <0.171, this indicates that the data distribution is not good. The highest brisk occurred at PT Tiga Pilar Sejahtera Food (AISA) of 0.80, while the lowest Brisk occurred at PT Sierad Produce (SIPD) of -0.07

Sales growth is shown by the sales growth proxy, with the size of the 51 samples of manufacturing companies in the food and beverage sub-sector having a minimum value of -2.11, a maximum value of 0.33, an average value (mean) of 0.014, and a standard deviation of 0.324. The average value (mean) is smaller than the standard deviation, namely 0.014 <0.324, this indicates that the data distribution is not good. The highest sales growth occurred at PT Prasadha Aneka Niaga (PSDN) of 0.33, while the lowest sales growth occurred at PT Tiga Pilar Sejahtera Food (AISA) of -2.11.

The size of the company is indicated by the size proxy, with the size of the 51 samples of manufacturing companies in the food and beverage sub-sector having a minimum value of 13.62, a maximum value of 30.58, an average value (mean) of 21.114, and a standard deviation of 5.918. The average value (mean) is greater than the standard deviation, namely 21,114 > 5,918, this indicates a good data distribution. The highest size occurred at PT Mayora Indah (MYOR) of 30.58, while the lowest was at PT Akasha Wira International Tbk (ADES) of 13.62

The capital structure is shown by the DER proxy with the size of the 51 samples of manufacturing companies in the food and beverage sub-sector having a minimum value of -2.13, a maximum value of 3.34, an average value (mean) of 0.939, and a standard deviation of 0.878. The average value (mean) is greater than the standard deviation, namely 0.939 > 0.878, this indicates a good data distribution. The highest DER occurred at PT Prasadha Aneka Niaga (PSDN) of 3.34, while the lowest DER occurred at PT Tiga Pilar Sejahtera Food (AISA) of -2.13.

2. RESULTS OF DATA ANALYSIS

CLASSIC ASSUMPTION TEST

- The normality test is carried out on the residual value of the regression model. The method used is the Kolmogorov-Smirnov non-parametric test. Based on the test results, it is known that the Kolmogorov-Smirnov test on the residuals of the regression model produces a significance (Asymp. Sig.) Of 0.148. With a significance > 0.05, the residuals of the regression model are stated to be normally distributed.
- Autocorrelation in this study was tested with the Durbin-Watson test. Based on the test results, it is known that the autocorrelation test produces a Durbin-Watson (DW) value of 2.065. The regression model consists of 5 parameters (1 constant and 4 regression coefficients) and is arranged with 51 data so that the critical value of the upper limit of Durbin-Watson (DU) used is 1.722. When compared, it can be seen that $DU < DW < 4 - DU$ ($1,722 < 2,065 < 2,278$). Thus, it is stated that there is no autocorrelation.
- Multicollinearity is a perfect linear correlation between independent variables. The existence of multicollinearity is a deviation of the assumptions for the regression model. Multicollinearity in this study was detected by tolerance and VIF values. Based on the test results, it is known that all the independent variables in this study have a tolerance value > 0.1 and VIF < 10. Thus, it is stated that there is no multicollinearity.
- The heteroscedasticity test in this study was carried out based on the scatterplot between the standardized predicted value (ZPRED) and the residual value (studentized residual or SRESID). The presence or absence of heteroscedasticity is determined according to the interpretation of the dotted pattern formed in the plot. Based on the test results, it is known that the scatterplot shows a pattern of randomly scattered dots, specifically not forming certain patterns such as waves or cone shape curves. Thus, the regression model states that heteroscedasticity does not occur

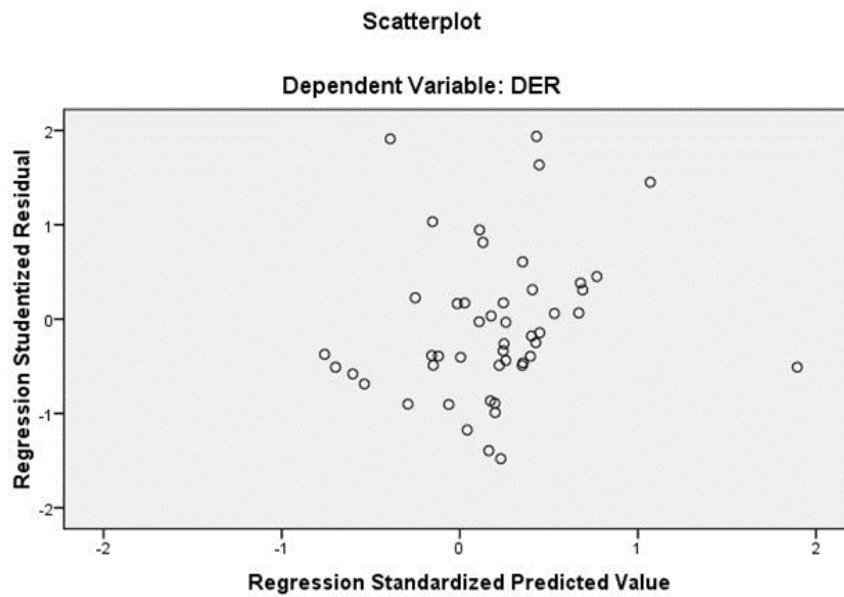


Figure 1: Scatterplot for Heteroscedasticity Test

MULTIPLE LINEAR REGRESSION TEST RESULTS

Table 2: Multiple Linear Regression Test Results

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	1.518	.382	
	ROE	1.433	.357	.459
	BRISK	-3.149	.590	-.613
	Sales Growth	1.224	.287	.452
	Size	-.018	.016	-.121

a. Dependent Variable: DER
 Source: Research Data, 2021

Based on the table above, the relationship between variables in this study can be expressed by the regression equation as follows:

$$Y = 1,518 + 1,433 X_1 - 3,149 X_2 + 1,224 X_3 - 0,018 X_4$$

Coefficient of Determination (R²)

Based on the test results, the multiple linear regression model obtained in this study has a coefficient of determination or R² of 0.514. This figure provides an interpretation that the model can explain 0.514 or 51.4% of the variation in the value of the dependent variable, namely DER. This R² figure is quite high, indicating that the four independent variables, namely ROE, brisk, sales growth, and size have a good ability to explain variations in DER values.

Model Feasibility Test (F test)

Based on the test results it is known that the feasibility test of the multiple linear regression model in this study produces an F statistical value of 12.173 with a significance of 0.000. Because of the significance <0.05, it is concluded that all independent variables (ROE, brisk, sales growth, size) have a joint or simultaneous effect on the dependent variable (DER).

3. DISCUSSION OF RESEARCH RESULTS

The Effect of Profitability on Capital Structure

Hypothesis 1 (H1) states that profitability has a negative effect on the capital structure of manufacturing companies listed on the IDX. This hypothesis was tested based on the results of the t test on the variable regression coefficient X1 (ROE) which produced a t statistical value of 4.015 and a significance of 0.000. The significance value <0.05 means that the effect of ROE on DER is significant. Because the effect of ROE in the model is positive while what is stated in the hypothesis is negative, then hypothesis 1 (H1) cannot be accepted. Thus, it can be stated that profitability has a significant positive effect on the capital structure of manufacturing companies listed on the IDX. The significant positive effect of profitability on capital structure is because every increase in profitability will always be followed by an increase in capital structure. The higher the profitability, the greater the retained profit but this will be balanced with high debt because the company's prospects are considered very good. Profitability has a positive and significant effect, which can occur because companies that are expanding require a lot of funds to encourage an increase in profits in the future.

This research is in line with the research of Lusiana and Sudarma., (2018), Srimindarti et al., (2019) which concluded that profitability has a significant positive effect on capital structure.

The Effect of Business Risk on Capital Structure

Hypothesis 2 (H2) states that business risk has a negative effect on the capital structure of manufacturing companies listed on the IDX. This hypothesis was tested based on the results of the t test on the regression coefficient of variable X2 (Brisk) which resulted in a statistical value of t of -5.333 and a significance of 0.000. The significance value <0.05 means that the Brisk effect on DER is significant. Thus, hypothesis 2 (H2) is accepted or it can be stated that business risk has a significant negative effect on the capital structure of manufacturing companies listed on the IDX. The negative effect means that the smaller the business risk, the better the capital structure. The negative effect of business risk on capital structure is because companies with large business risks must use smaller debt than companies that have low business risk, because the greater the business risk, the use of large debt will make it difficult for companies to repay their debts.

This finding is in accordance with the results of other studies conducted by Yuliandi et al (2016), Yunita and Aji (2018), Ageyi and Owusu (2014), and Sari and Lilis Ardini (2017).

The Effect of Sales Growth on Capital Structure

Hypothesis 3 (H3) states that sales growth has a positive effect on the capital structure of manufacturing companies listed on the IDX. This hypothesis was tested based on the results of the t test on the regression coefficient of the X3 variable (sales growth) which produced a t statistical value of 4.269 and a significance of 0.000. The significance value <0.05 means that the effect of sales growth on DER is significant. Thus hypothesis 3 (H3) is accepted or it can be stated that sales growth has a significant positive effect on the capital structure of manufacturing companies listed on the IDX. The positive effect means that the higher the sales growth, the better the capital structure. The positive effect of sales growth on capital structure is because companies with high sales growth tend to use debt as an external source of funds greater than companies with low sales growth rates.

These results are consistent with the results of other studies conducted by Wellalage and Locke (2015), Sari and Lilis Ardini (2017), Mila, Djumahir and Atim (2015), and Dewani (2010).

The Effect of Company Size on Capital Structure

Hypothesis 4 (H4) states that company size has a positive effect on the capital structure of manufacturing companies listed on the IDX. This hypothesis was tested based on the results of the t test on the regression coefficient of the variable X4 (size) which produced a t statistical value of -1.118 and a significance of 0.269. The significance value >0.05 means that the effect of size on DER is not significant. Thus, hypothesis 4 (H4) cannot be accepted or it can be stated that company size has no effect on the capital structure of manufacturing companies listed on the IDX. The negative effect shows that the increase in company size can consequently reduce the capital structure, and the negative effect means that large company size is not a consideration that the company will increase its external sources of funds originating from debt to be able to finance the company's operational activities. A large company size will not increase the capital structure of the company because a large company size indicates that the company has a large internal source of funds or retained earnings, so that the company is able to finance investment with the funds it has collected.

The results of this study are in accordance with the results of other studies conducted by Lusiana and Sudarma., (2018), Wardana and Sudiarta., (2015), which show that company size has a negative effect on capital structure.

V. CONCLUSION

Based on the discussion in the previous chapter, the conclusions of this study are as follows: Profitability has a significant positive effect on the capital structure of manufacturing companies listed on the IDX. Business risk has a significant negative effect on the capital structure of manufacturing companies listed on the IDX. Sales growth has a significant positive effect on the capital structure of manufacturing companies listed on the IDX. Company size has no effect on the capital structure of manufacturing companies listed on the IDX.

VI. SUGGESTION

1. Of the four factors studied, it is empirically proven that the capital structure is significantly influenced by profitability, business risk and sales growth, so it is recommended that manufacturing companies give priority to minimizing business risks and increasing profitability and sales growth in order to obtain an optimal capital structure.
2. Firm size is not proven to have a significant effect on capital structure. Further research is needed to examine this variable with several suggestions such as the use of other parameters, increasing the number of samples, and involving other factors.

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