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Analysis of the Influence of Company Size, Growth Opportunities, and Liquidity on Capital Structure (Study of Food and Beverage Companies Listed on Idx 2013 – 2017)

Hendro Widjanarko[1], Andi Hakim[2], Sri Budiwati[3]

[1,2,3,] Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia

ABSTRACT: This research aims to find and analyze the effect of firm size, growth opportunity, and liquidity on capital structure simultaneously and partially. The research object used is a food and beverage company listed on Indonesia Stock Exchange in 2013-2017. This research sample is 75 observation data from food and beverage companies listed on Indonesia Stock Exchange during 2013-2017. The method used in this research is multiple regression analysis. The result showed that firm size, growth opportunity, and liquidity simultaneously affect capital structure. Partially, liquidity harms capital structure; otherwise, firm size and growth opportunity do not affect capital structure.

KEYWORDS: Capital structure, firm size, growth opportunity, liquidity

I. INTRODUCTION

Today the development of science and technology in the era of globalization creates increasingly competitive competition between companies. Various industries, including food and beverage, support Indonesia's economic growth. The Ministry of Industry (Kemenperin) also noted that the export value of national food and beverage products in 2017 reached US$ 11.5 billion, an increase from 2016, which amounted to US$ 10.43 billion. This is compared to the import value of national food and beverage products in 2017, which reached US$ 9.88 billion (kemenperin.go.id). This means that in 2017 the food and beverage industry recorded a surplus in the trade balance. Based on these data, the objects to be examined in this study are food and beverage companies listed on the Indonesia Stock Exchange (IDX) in 2013-2017.

Based on Making Indonesia 4.0 initiated by the Ministry of Industry, five manufacturing sectors will be pioneers in implementing Industry 4.0, including the food and beverage industry. The advantages of implementing Industry 4.0 include creating high efficiency, reducing production time and costs, minimizing work errors, and increasing product accuracy and quality. In addition, the government is also targeting a significant tax deduction policy for the industrial sector that develops vocational education and research and development. This policy was taken to anticipate the state to welcome Industry 4.0. But on the other hand, the investment made to include Industry 4.0 is still relatively expensive, requiring a lot of capital.

Capital is obtained from equity or debt. Funding using debt has two crucial advantages: (1) Interest paid on debt can be tax deductible, while dividends paid on shares are not tax deductible, so that it will reduce the relative cost of debt. (2) The return on debt is fixed. Using large amounts of debt will increase the risk borne by shareholders. The use of debt will also assist shareholders in supervising management because there are creditors who also oversee financial performance. Meanwhile, the issuance of new shares, which are then sold to the public, will result in high capital costs. This is because the cost of using new claims is the most increased cost compared to other funding sources. (Riyanto, 2010).

The variables related to the capital structure are firm size, growth opportunity, profitability, business risk, asset tangibility, firm age, liquidity and type of industry (Sugiarto, 2009). The decisions to be taken in determining the capital structure policy can be influenced by these variables. Research on the factors that influence capital structure has previously been carried out by many previous researchers. Several studies conducted showed different results, and the variables used varied.

Research conducted by Maulina, Nuzula, and Nurlaily (2018) states that company size and asset structure variables partially have a positive effect on capital structure. Variables of tax savings, profitability, operating leverage, and growth rates partially have no impact on capital structure. Research conducted by Arini (2014) states that sales growth variables have a positive influence, liquidity variables, company size, and profitability have a negative effect, and asset structure variables have a positive

impact. The variable that has the dominant effect on the capital structure is the profitability variable. Research conducted by Sholikhatun (2016) states that asset growth positively affects capital structure. Business risk, profitability, and liquidity negatively affect the capital structure, while company size does not. Other research conducted by Indrajaya, Herlina, and Setiadi (2011) stated that asset structure and company size positively affect the capital structure, while profitability negatively affects capital structure. Meanwhile, the growth rate and business risk do not affect the capital structure. The research results also show that profitability is the most influential variable in the study.

II. LITERATURE REVIEW

A. Capital Theory Structure

Business risk is an essential determinant of optimal capital structure, and companies in various industries have different business risks, so that the capital structure will vary in each sector (Brigham and Houston, 2014). Within the same industry, the company's capital structure will also vary. Capital structure is an essential component for companies to achieve company goals. Therefore, there have been several approaches developed over time regarding capital structure. The traditional approach argues that there is an optimal capital structure. This means that the capital structure influences firm value, where the capital structure can change to obtain optimal firm value. This approach further explains that changes in capital structure affect solid matter if investment decisions and dividend policies are held constant.

Modern capital structure theory began in 1958 when professors Franco Modigliani and Merton Miller (later called MM) published the most influential financial article entitled "The Cost of Capital, Corporation Finance, and the Theory of Investment". The results of MM's research show that how a company finances its operations has no effect, so the capital structure is irrelevant. In 1963, MM published a follow-up article. In this article, MM acknowledges that the Tax Regulations allow companies to deduct interest payments as an expense, but dividend payments to shareholders are not tax deductions. Miller then modified it by including the impact of personal taxes. Miller argues that investors are willing to accept a relatively low after-tax return on stocks compared to the after-tax return on bonds. Miller also contends that interest as a tax deduction benefits the use of debt financing. However, the tax treatment of income from stocks is more profitable by lowering the required rate of return on shares, favouring equity funding (Brigham and Houston, 2014).

B. Pecking Order Theory

The Pecking Order Theory was developed by Myers and Majluf in 1984. This theory is based on the belief that management knows more about the company and its opportunities than outside investors (asymmetric information), and this theory is also based on the assumption that management does not want to be forced to issue equity when stock prices are sluggish (Mellicher and Norton, 2016). This theory states that companies tend to look for sources of funding that are minimal in risk. The selection of corporate financing is based on the order of preference (risk): retained earnings, debt, and issuance of new shares. Pecking order theory helps explain that companies with higher profitability tend to have lower debt ratios because adding funds with retained earnings reduces their need to borrow (Mellicher and Norton, 2016). Not because the company has a standard target debt ratio but because the company doesn't need outside financing. If the company has high profits, it will use them for growth opportunities with little debt and not issuing stock.

C. Trade-Off Theory

The trade-off theory is a capital structure theory which states that companies trade the tax benefits of debt financing for the problems caused by potential bankruptcy (Brigham and Houston, 2014). This theory was introduced by Kraus and Litzenberger in 1973. This theory was developed because of the MM assumption, which states that there are no bankruptcy costs, but bankruptcy requires costs. The trade-off theory has implications that managers will consider regarding a trade-off between tax savings and the cost of financial distress in determining capital structure. Companies with a high level of profitability will try to reduce their taxes by increasing their debt ratio so that the additional debt will reduce taxes (Baker and Martin, 2011).

D. Signalling Theory

MM assumes that investors and managers have the same information about a company's prospects. This is referred to as symmetric information. But in reality, managers know better information than outside investors. This is then referred to as asymmetric information. This situation has an important influence on the optimal capital structure. The existence of asymmetric information makes managers one step ahead of investors in knowing the company's prospects. This theory states that companies with very bright prospects prefer not to fund through new stock offerings, while companies with poor prospects prefer funding with outside equity (Brigham and Houston, 2014). The implication of signal theory on capital structure is that

issuing shares will be a negative sign and tend to depress share prices. Even if the company has bright prospects, the company should be able to maintain reserve loan capacity. This means that in standard times, companies should use more equity and less debt than proposed by the bankruptcy cost/tax benefit swap model (Brigham and Houston, 2014).

E. Agency Theory

An agency relationship is a contract in which one or more people (principals) instruct another person (agent) to perform a service on behalf of the principal and authorize the agent to make the best decisions for the principal (Ichsan, 2013). Managers are agents of shareholders and act on behalf of shareholders. In practice, there is conflict underlying this relationship. Conflicts of interest between owners and agents occur because of the possibility that agents do not always act following the principle, thereby triggering agency costs. Jensen and Meckling (1976) define agency costs as the sum of (1) supervisory expenditures by principals; (2) issuance of bonds by agents; (3) residual loss. The shareholders bear agency costs incurred.

F. Capitak Structure

Capital structure is the percentage of each type of capital companies use, such as debt, preferred stock and common equity (Brigham and Ehrhardt, 2010). With a company's investment decision to allocate funds into fixed or current assets, the company needs capital. This capital can come from debt or equity, and then the financial manager must be able to combine these various funding sources. The target capital structure is a combination of debt, preferred stock and common equity which will be the basis for raising capital for the company (Brigham and Houston, 2014). In practice, companies tend to look for a capital structure that balances risk and return, increasing the company's value.

G. Firm Size

Firm size is defined as the size of a company which can be determined based on: total sales, total assets, average total sales and total assets (Seftianne and Handayani, 2011). Sitanggang (2013) stated that large companies could quickly obtain external funding sources. The larger the size of the company, the company will increasingly need more capital. Titman and Wessels (1988) in Baker and Martin (2011) argue that large companies tend to be more diversified and fail less frequently.

H. Growth Opportunity

The definition of growth opportunities is the change in total assets owned by the company (Kartini and Arianto, 2008). This quantity measures the extent to which a company's earnings per share can be increased by leverage. Companies that have fast growth often have to increase their fixed assets. Thus, companies with high growth rates need more funds in the future and retain more profits. The retained earnings of companies with high growth rates will increase, and those companies will take on more debt to maintain the targeted debt ratio.

I. Liquidity

The liquidity ratio is a ratio that shows the relationship between a company's cash and other current assets and its current liabilities (Brigham and Houston, 2014). Liquidity can be defined as the company's ability to pay off the obligations that must be met or the company's short-term debt with the company's current assets. The liquidity position is related to whether the company can pay off its debts when the debt is due (Brigham and Houston, 2014). Based on the pecking order theory, companies with sufficient liquidity need less external funding and prefer internal funding sources. Myers and Rajan (1998) suggest that when agency liquidity costs are high, creditors tend to limit the number of loans to the company.

III. RESEARCH METHODS

A. Conceptual Framework

Many factors can affect the capital structure of a company. In this research, the writer simplifies it and examines the variables suspected to have an influence based on the literature review and previous studies. The independent variables in this study include firm size, growth opportunities, and liquidity. At the same time, the dependent variable in this study is capital structure. The following is the research framework for this study:

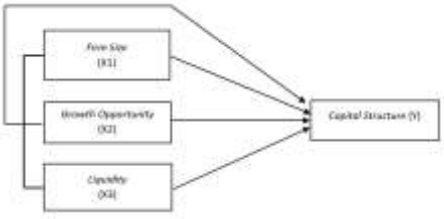

Figure 1. Conceptual Work

B. Methods

In this study, the method used is explanatory research with a quantitative approach. The population in this study is the total observation data of food and beverage companies listed on the Indonesia Stock Exchange (IDX) in the 2013-2017 range of 75 observational data. The data needed in this research is the financial data of food and beverage companies. The data was obtained by accessing the official website of the Indonesia Stock Exchange (www.idx.co.id) to get a summary of company performance and the annual financial reports of food and beverage companies listed from 2013 to 2017. The data is time series data collected in one time series (Basuki, 2016).

IV. RESULTS

A. Multicollinearity Test

In this study, the method used to detect multicollinearity is analyzing the correlation matrix between the independent variables and looking at the tolerance value and Variance Inflation Factor (VIF). If between the independent variables, there is a reasonably high correlation (generally above 0.90), then this is an indication of multicollinearity (Ghozali, 2013).

Table 1. Multicollinearity Test Results

Correlation Between Variables		**Correlation coefficient**	**Description**
firm size with *growth opportunity*		0,046	There is no multicollinearity
firm size with liquidity		-0,045	There is no multicollinearity
growth opportunity with liquidity		0,207	There is no multicollinearity
Model	***Collinearity Statistics***		**Description**
	Tolerance	**VIF**	
firm size	0.995	1.005	There is no multicollinearity
growth opportunity	0.954	1.048	There is no multicollinearity
liquidity	0.954	1.048	There is no multicollinearity

Table 4.1 shows The most significant correlation between growth opportunity variables and liquidity, with a correlation level of 0.207 or around 20.7%. Because this correlation is still below 95%, it can be concluded that there is no severe multicollinearity in this study. To be sure, a test is carried out by looking at the tolerance and VIF values. The regression model is considered free from multicollinearity if the tolerance value is ≥ 0.10 and the VIF value is ≤ 10. Because all independent variables have a tolerance value of more than 0.10 and VIF is less than 10, it can be concluded that there is no multicollinearity in this study.

B. Heteroscedasticity Test

The heteroscedastic test in this study was carried out using the Glesjer test. The Glesjer test is carried out by regressing the absolute residual value of the estimated model on the explanatory variables. The test criteria using the Glesjer test is to look at the probability of the residual fundamental value regression model with the independent variables. Suppose the significance value is above the 5% confidence level. In that case, heteroscedasticity does not occur, whereas heteroscedasticity can be stated in this model if the significance value is below the 5% confidence level. The following is a table of Glejser test results in this study:

Table 2. Glesjer Test Results

Model	**Sig.**	**Description**
firm size	0,449	There is no heteroscedasticity
growth opportunity	0,070	There is no heteroscedasticity
liquidity	0,669	There is no heteroscedasticity

Based on table 4.2, which shows the results of the Glesjer test using the SPSS data processing program, it shows that all independent variables have a significance value more significant than a significance value of α = 0.05 and are not statistically significant. So it can be concluded that there are no heteroscedastic symptoms in the regression model.

C. Hypothesis Test

The next test to be carried out is hypothesis testing. This test includes the F test to analyze the effect of the independent variables on the dependent variable simultaneously, the adjusted R-square coefficient of determination to see the ability of the independent variables to explain the model, and the t-test to analyze the effect of the independent variables on the dependent variable partially.

1. Test the Regression Model and Adjusted R-square Coefficient of Determination with the F Test The F test was conducted to determine whether all the independent variables influenced the dependent variable together. This test was conducted by analyzing the ANOVA table on the SPSS output results. Here are the test results:

a. The significance value of the F test was obtained at 0.000. The significance value is smaller than the significance value α = 0.05. This shows that the independent variables, namely firm size, growth opportunity, and liquidity, simultaneously affect the capital structure variable. So, H1 in this study is accepted.

b. The adjusted R2 value is 0.419. This shows that firm size, growth opportunity, and liquidity variables can explain the model in the study by 41.9%, while other variables explain the remaining 58.1%.

2. Test the Regression Coefficient with the t-testThe t-test was conducted to determine whether the independent variable partially affects the dependent variable. This test is carried out by looking at the coefficient table on the SPSS output results. The results of the t-test can be analyzed in Table 2. Following are the results of the partial hypothesis test with the t-test:

a. The significance value of firm size (X1) is 0.620, more significant than the significance value α = 0.05, so it can be interpreted that firm size (X1) does not affect the capital structure (Y). So it can be concluded that H2 in this study was rejected.

b. The significance value of growth opportunity (X2) is 0.182, more significant than the significance value α = 0.05, so it can be interpreted that growth opportunity (X2) does not affect the capital structure (Y). So it can be concluded that H3 in this study was rejected.

c. The significance value of liquidity (X3) is 0.000 less than the significance value α = 0.05, so it can be interpreted that liquidity (X3) affects capital structure (Y). So it can be concluded that H4 in this study is accepted

V. DISCUSSION

1. The Effect of Firm Size, Growth Opportunity, and Liquidity Variables on Capital Structure Together

The test results show that the variable firm size, growth opportunity, and liquidity affect the structure simultaneously after going through the F test. Thus it states that the independent variables have a combined effect on the capital structure. Based on the test results, independent variables such as firm size, growth opportunities, and liquidity can affect the company's capital structure. So the company must consider these variables in determining the company's capital structure. This is consistent with research conducted by Sholikhatun (2016), which states that firm size, growth opportunities, and liquidity have a combined effect on capital structure. So it can be concluded in determining the company's capital structure, these variables need to be considered and considered.

2. Effect of Firm Size on Capital Structure

Firm size is defined as the size of a company which can be determined based on: total sales, total assets, average total sales, and total assets (Seftianne and Handayani, 2011). The test results in this study indicate that the firm size variable does not affect capital structure. The larger the size of the company, of course, the more capital needed, and the larger the company's size, the easier it will be to obtain external funding sources. In this study, firm size has no effect. This is presumably because the bigger the company, the more interested investors will be in investing in it, so the company will issue shares to meet its capital needs. Companies that are more established also have more internal funds available for use, so companies will avoid debt and prefer internal funds. The results of this study are consistent with research conducted by Sholikhatun (2016), who in his research stated that firm size has no effect on capital structure. The results of this study are not in line with the results of research conducted by Arini (2014), which in his study stated that firm size harms capital structure.

3. Effect of Growth Opportunity on Capital Structure

Companies that have fast growth often have to increase their fixed assets. Thus, companies with high growth rates need more funds in the future and retain more profits. The t-test results in this study indicate that growth opportunity does not affect capital structure partially. The results of this study are not in line with those stated by Brigham and Houston (2014), which say that companies with high growth rates are generally more dependent on external capital (debt), so the company's capital structure will increase. Several things can cause incompatibility with this theory. One of them is that the better the growth rate

of a company, investors will be interested in investing because of the profitable prospects in the future. So companies prefer to issue shares rather than debt.

4. Effect of Liquidity on Capital Structure

Liquidity is the company's ability to pay off its short-term debt with its current assets. Based on the results of the t-test, it shows that the liquidity variable harms the capital structure partially. Based on the test results, it can be concluded that companies that have high liquidity tend to reduce the proportion of debt because they prefer to use internal funds to fund their operations. This follows what is stated by the pecking order theory. Companies with high liquidity tend to have internal funds available, so they prefer to use internal funds with minimal risk. The higher the company's liquidity, its capital structure will be reduced. The results of this study are consistent with research conducted by Arini (2014), which states that liquidity harms capital structure partially. The results of this study are also supported by research conducted by Sholikhatun (2016), which says that liquidity breaks capital structure. The theory underlying the results of this study is the pecking order theory.

VI.CONCLUSION

This research was conducted to analyze and determine the effect of firm size, growth opportunity, and liquidity on the capital structure of food and beverage companies listed on the Indonesia Stock Exchange (IDX) during the 2013-2017 period. Based on the results of the analysis and discussion, the conclusions of this study are as follows:

1. The study's results suggest that firm size, growth opportunity, and liquidity jointly influence the capital structure of food and beverage companies listed on the Indonesia Stock Exchange (IDX) during the 2013-2017 study period.
2. Liquidity harms the capital structure of food and beverage companies listed on the Indonesia Stock Exchange (IDX) for 2013-2017.
3. Firm size and growth opportunity do not affect the capital structure of food and beverage companies listed on the Indonesia Stock Exchange (IDX) for the 2013-2017 period

SUGGESTION

For Further Researchers. This study has limitations, namely the coefficient of determination (adjusted R-square) value of 41.9%. This means that there is 58.1% which other variables can explain. For further researchers, they can include other variables in researching about the capital structure that is suspected of having an influence, such as profitability, asset structure, and other variables that follow theory and literature review. It is also recommended that future researchers use research objects in other sectors or the manufacturing industry as a whole so that more significant results can be seen and can represent the population as a whole.

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