# The Effect of Company Size, Profitability, Liquidity and Sales Stability on the Capital Structure of the Food and Beverage Subsectors Manufacturing Companies Listed on the Indonesia Stock Exchange in 2014-2019

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## Abstract

*The purpose of this study was to determine the effect of company size, profitability, liquidity and sales stability on the capital structure of the Food and Beverage Sub-Sector Manufacturing companies listed on the Indonesia Stock Exchange in 2014-2019. This study uses a quantitative research approach. The data collection technique is literature study. The population of this research is 25 manufacturing companies in the Food and Beverage Sub-Sector listed on the Indonesia Stock Exchange in 2014-2019. The research sample was 12 companies. The model is with multiple linear regression. The result is that company size has no effect on the capital structure of the Food and Beverage Sub-Sector Manufacturing companies listed on the Indonesia Stock Exchange in 2014-2019.*

## I. Introduction

Economic growth in the first quarter of 2019 slowed down, resulting in restrained public consumption and its impact on the financial performance of several large consumer companies, including Unilever. The economic slowdown resulted in a sluggishness which resulted in food and beverage companies experiencing a decline in their capital structure so that companies tried to find outside sources of capital.

According to Sukirno (2013), the economy of a developing country or region is in accordance with the historical, geographical and cultural values of its people. In its development, it will provide variations to the economic structure of the region. It was also further stated that based on the business field, the economic sectors in the Indonesian economy could be divided into 3 (three) main groups. The three groups, namely (a) the primary sector comprises agriculture, farm field, forestry, fisheries, mining and quarrying; (b) the secondary sector consists of manufacturing, electricity, gas and water, buildings; and (c) the tertiary sector consists of trade, hotels, restaurants, transportation and communication, finance, rental and business services, other services (including government). (Magdalena and Suhatman, 2020)

In the current economic development, manufacturing companies are required to be able to compete in the industrial world. Manufacturing companies need to invest to increase the company's business capital. To invest, various kinds of information about the issuer are needed, both company performance information in the form of financial statements or other relevant information. The economic development of a country can be measured in many ways, one of which is by knowing the level of world capital market development. The capital market is a place for investors to conduct investment activities (Angelia and Toni).

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Big companies always have a large capital structure and it is easy for companies to obtain loans because the assets owned by large companies can be used as collateral for debt. Meanwhile, small companies always experience difficulties in obtaining loans from creditors because the assets are used as collateral for small debt.

Big companies and small companies can not be separated from the main goaloperation i.e. profit. The level of company profit can be measured using profitability. Companies that have high profits will tend to use funding through internal sources, namely using profits, the higher the company's profits will result in a smaller proportion of the use of debt.

Increasing debt in companies certainly has an impact on debt payments. The company has high liquidity, so the company's capital structure that comes from debt becomes low. The increase in debt was due to unstable sales. This sales instability causes the company to carry out a high debt capital structure rather than the company having stable sales.

The debt policy is a policy to determine the funds of each company that comes from external sources. Managers in each company can pay attention to the risks of using debt in determining the proportion of debt appropriately in order to increase the value of the company. However, in fact there is disruption and inconsistency of debt policy resulting in a decrease in the value of the company so that the statement where the debt policy can increase the value of a company is not as expected. (Afiezan et al, 2020)

Based on the background description above, which encourages researchers to be interested in researching "The Effect of Company Size, Profitability, Liquidity and Sales Stability on Capital Structure in Food and Beverage Sub-Sector Manufacturing Companies listed on the Indonesia Stock Exchange in 2014-2019".

## II. Review of Literatures

Hudan, Isynuwardhana and Triyanto. (2016: 1598) It is easier for large companies to get loans from outside. Small companies with low cash inflows have a harder time getting debt because they are considered risky compared to giving debt to large companies. According to Kamaludin and Indriani (2018: 326) high profitability will also have large retained earnings, so companies prefer to use retained earnings before using debt as investment financing.

According to Herlambang and Marwoto (2014: 147) current debt is all short-term debt and aims to determine the amount of wealth in the form of cash to fulfill obligations. The company is able to fulfill all of its obligations so that the company is in a liquid state. Sudana (2015: 185) stable sales can get loans with high debt compared to companies that have fluctuating sales.
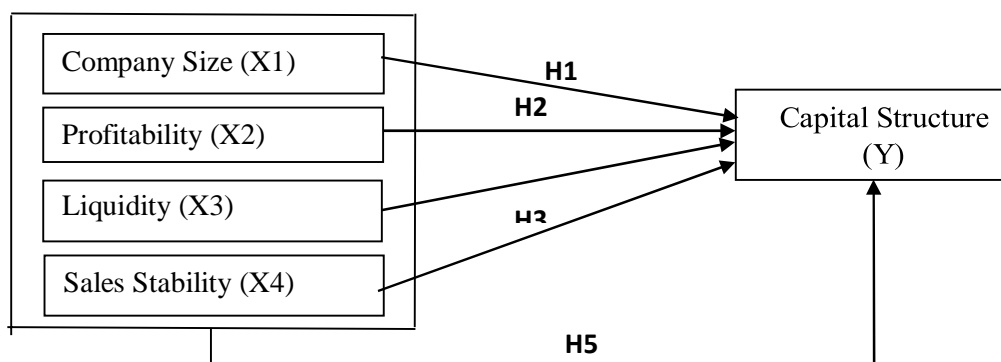


***Figure 1***. *Conceptual Framework*

# III. Research Methods

The research was conducted at the Food and Beverage Sub-Sector Manufacturing Company listed on the Indonesia Stock Exchange in 2014-2019 by accessing it through the website www.idx.co.id to obtain the data needed in this study.

This study uses a quantitative research approach. The data collection technique is literature study. Literature study, namely the collection of supporting data in the form of literature, previous research, and financial reports of the Food and Beverage Sub Sector Manufacturing Companies listed on the Indonesia Stock Exchange in 2014-2019 which are published to get an overview of the problems to be studied.

The population of this research is 25 manufacturing companies in the Food and Beverage Sub-Sector listed on the Indonesia Stock Exchange in 2014-2019. The research sample consisted of 12 Food and Beverage Sub Sector Manufacturing Companies listed on the Indonesia Stock Exchange in 2014-2019. Descriptive statistics are the numerical presentation of data. Descriptive statistics are used to describe the profile of the sample data which includes the mean, maximum, minimum and standard deviation.

In this study using quantitative data analysis techniques in which to determine the effect of independent variables on the dependent variable. The data analysis technique used is multiple linear regression with the equation:

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

# IV. Result and Discussion

SPSS processed data collection starts from descriptive data, classical assumptions to hypothesis testing.

## 4.1 Descriptive Data

The data were processed by 12 manufacturing companies in the food and beverage sub-sector presented:

**Table 1**. Descriptive Statistics Descriptive Statistics

|  | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Company size | 72 | 26.54 | 32.20 | 28.9775 | 1.44657 |
| ROA | 72 | .00 | .53 | .1168 | .10796 |
| CR | 72 | .51 | 8.64 | 2.4175 | 1.81253 |
| Stability of Sales | 72 | -.51 | .46 | .0736 | .13330 |
| DER | 72 | .16 | 3.01 | .9232 | .55411 |
| Valid N (listwise) | 72 |  |  |  |  |

Source: processed data

## 4.2 Classic Assumptions
## a. Normality Test

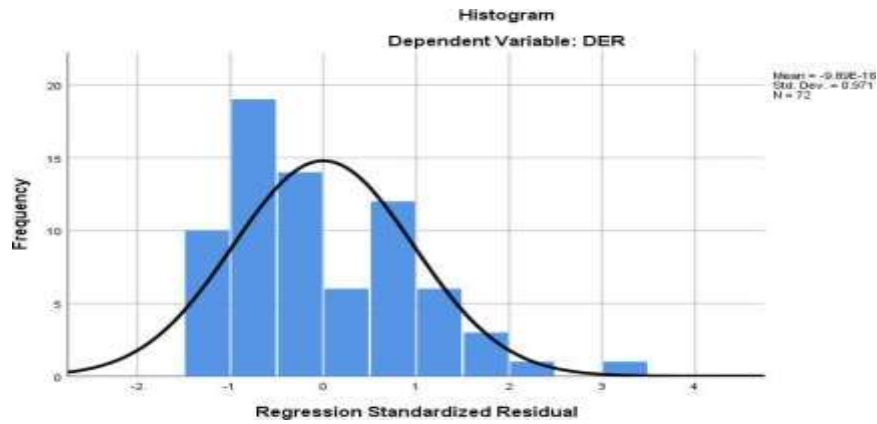Testing for normality with the graph method is presented with the following histogram:



***Figure 1****. Histogram before Transformation*

This histogram graph looks tilted to the right, even though it doesn't form an inverted parabola, it can be said that the data is not normal. Normalizing data with the ln transformation for all variables then graph the histogram:
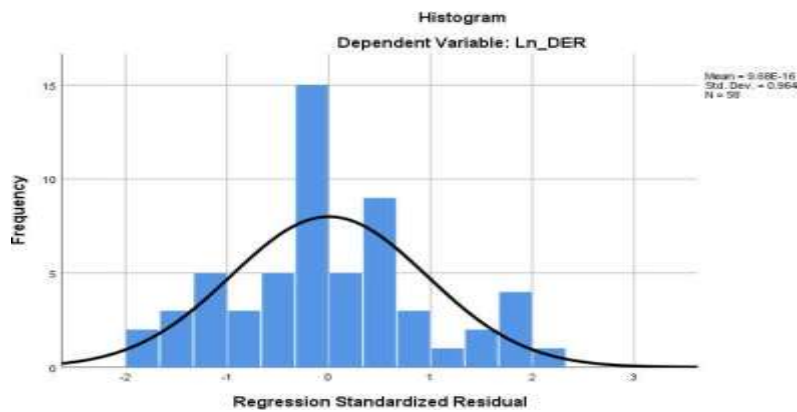


***Figure 2****. Histogram after Transformation*

This histogram graph does not appear tilted to the right of the left and forms an inverted parabola which can be said to be normal data. The second normal pp-plot graph is presented:
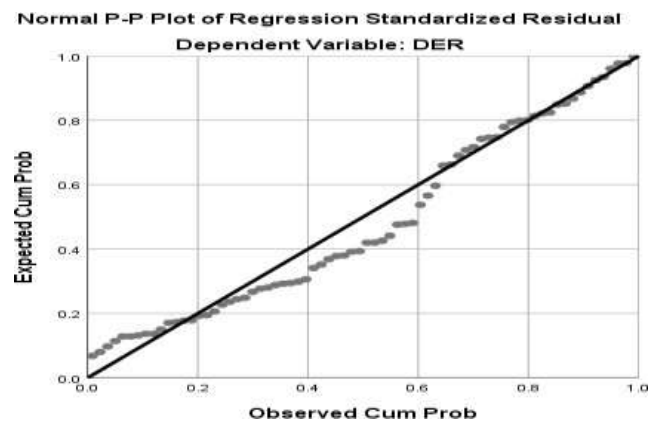


***Figure 3****. Normal pp-Plot before Transformation*

The normal pp-plot graph shows the point away from the diagonal line proved to be abnormal data. Normalizing data with the ln transformation for all variables then the normal graph is pp-plot.
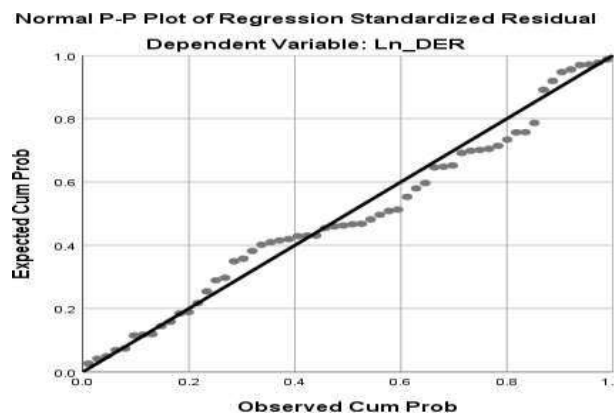


**Figure 4.** *Normal Probability Plot after Transformation*

The normal pp-plot graph shows the point approaching from the diagonal line proved to be normal data.

Kolmogorov Smirnov's one-sample statistics for normal data are above 0.05.

**Table 2**. One-Sample Kolmogorov-Smirnov Test before Transformation

One-Sample Kolmogorov-Smirnov Test

| | | | |
|---|---|---|---|
| N | | | 72 |
| Normal Parametersa, b | Mean | Std. | .0000000 |
| | Deviation | | .34813063 |
| Most Extreme Differences Absolute | | | .118 |
| | | | .118 |
| | Positive | | -.066 |
| | Negative | | |
| Statistical Test | | | .118 |
| Asymp. Sig. (2-tailed) | | | .015c |

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction

This normality statistic looks sig. 0.200 above 0.05 is proven to be normal data.

**b. Multicollinearity Test**

A good multicollinearity test does not occur correlation between independent variables provided that the VIF is below 10 and the tolerance is above 0.1.

**Table 4.** Multicollinearity Test Results before Transformation

| | Collinearity Statistics | |
|---|---|---|
| Model | Tolerance | VIF |
| 1 (Constant) | | |
| Company size | .984 | 1,016 |
| ROA | .944 | 1,060 |
| CR | .851 | 1,175 |
| Stability of Sales | .856 | 1,168 |

Company size, profitability, liquidity, sales stability and capital structure have VIF <10 and tolerance> 0.1 so there is no multicollinearity.

**Table 5**. Multicollinearity Test Results after Transformation

| Model | | Collinearity Statistics | |
|---|---|---|---|
| | | Tolerance | VIF |
| 1 | (Constant) | | |
| | Ln_Company Size | .828 | 1,208 |
| | Ln_ROA | .898 | 1,114 |
| | Ln_CR | .847 | 1,180 |
| | Ln_StabilityPenjualan | .835 | 1,197 |

Good multicollinearity does not translate into interrelations variable independent

### c. Autocorrelation Test
Autocorrelation test with the terms du < dw < 4-du.

**Table 6.** Autocorrelation Test Results before Transformation

| ModelR | | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .778a | .605 | .582 | .35837 | 1,461 |

    a. Predictors: (Constant), Sales Stability, Company Size, ROA, CR
    b. Dependent Variable: DER

Dw = 1.461, N = 72, du = 1.7366, du <dw <4-du, 1.7366> 1.461 <4-1.7366
up to 1.7366> 1.461 <2.2634 the data has autocorrelation.

**Table 7.** Autocorrelation Test Results after Transformation
Model Summary b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin Watson |
|---|---|---|---|---|---|
| 1 | .839a | .704 | .682 | .36550 | 1,558 |

    a.Predictors: (Constant), Ln_StabilityPenjualan, Ln_ROA, Ln_CR, Ln_SizeCompany
    b. Dependent Variable: Ln_DER

Dw = 1.558, N = 58, du = 1.7259, du <dw <4-du, 1.7259> 1.558 <4-1.7259
up to 1.7259> 1.558 <2.2741 data there is autocorrelation
Autocorrelation testing with run-tests can be presented:

**Table 8.** Run-Test Test Runs

| | |
|---|---|
| Valuea Test | -.03258 |
| Cases <Test Value | 29 |
| Cases> = Test Value | 29 |
| Total Cases | 58 |
| Number of Runs | 24 |
| Z | -1,590 |
| Asymp. Sig. (2-tailed) | .112 |

    a. Median

From table III.8 above shows the asymp sig. at the output runs test 0.112> 0.05, then the data does not experience / contain autocorrelation.

## d. Heteroscedasticity Test

Graphs of the plotterplots that meet the point conditions are randomly distributed and without a pattern, showing no heteroscedaticity.
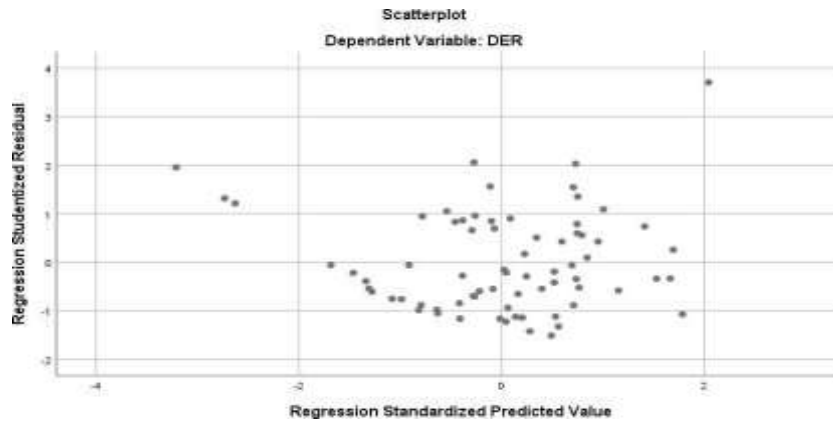


*Figure 5. Scatterplot before Transformation*

The Scatterplot graph that fulfills the point conditions is randomly distributed and patterned showing heteroscedaticity.
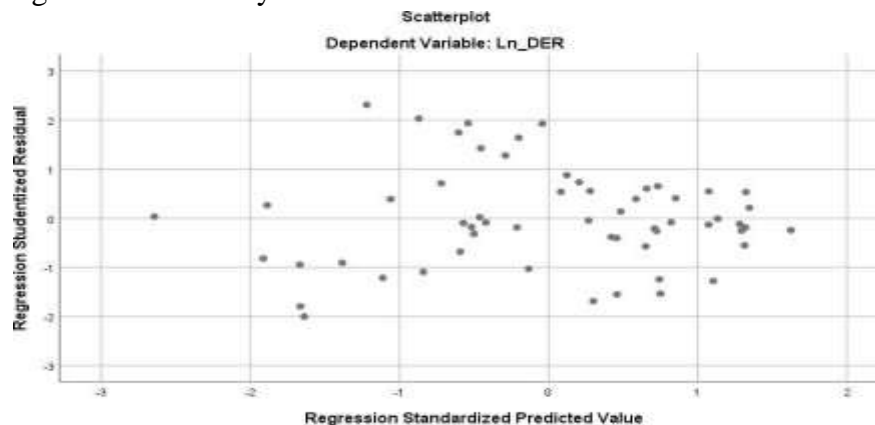


*Figure 6. Scatterplot after Transformation*

The Scatterplot graph which fulfills the point conditions is randomly distributed and has no pattern, showing no heteroscedaticity.

The statistical test of Glejser is in Table 9 below:

**Table 9.** Glejser Test Results before Transformation

**Coefficientsa**

| Model | | Unstandardized Coefficients | | Standardized Coefficients Betat | | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | | | |
| 1 | (Constant) | .507 | .486 | | 1,042 | .301 |
| | Company size | -008 | .017 | -.062 | -.503 | .617 |
| | ROA | .107 | .226 | .059 | .471 | .639 |
| | CR | .001 | .014 | .013 | .102 | .919 |
| | Stability of Sales | .060 | .192 | .041 | .313 | .755 |

a. Dependent Variable: Abs_ut

Company size, profitability, liquidity and sales stability have sig above 0.05, there is no heteroscedasticity.

Park test in table 10 below:

**Table 10.** Park Test Results

**Coefficientsa**

| Model | | Unstandardized Coefficients B | Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | -45,281 | 21,664 | | -2,090 | .041 |
| | Ln_Company Size | 12.301 | 6,541 | .259 | 1,881 | .066 |
| | Ln_ROA | -487 | .346 | -186 | -1,405 | .166 |
| | Ln_CR | 1,125 | .635 | .241 | 1,772 | .082 |
| | Ln_StabilityPenjualan | .766 | .435 | .242 | 1,763 | .084 |

a. Dependent Variable: LN2UI

Company size, profitability, liquidity and sales stability have sig above 0.05, there is no heteroscedasticity.

### 4.3 Multiple Linear Regression Analysis

Different linear regression to determine the rise or fall of the independent variable. The regression can be seen in table 11 below:

**Table 11.** Results of Multiple Linear Regression Analysis

**Coefficientsa**

| Model | | Unstandardized Coefficients B | Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | -1,666 | 3,400 | | -.490 | .626 |
| | Ln_Company Size | .581 | 1,026 | .046 | .566 | .574 |
| | Ln_ROA | -.080 | .054 | -115 | -1,463 | .149 |
| | Ln_CR | -995 | .100 | -810 | -9,987 | .000 |
| | Ln_StabilityPenjualan | .052 | .068 | .063 | .766 | .447 |

a. Dependent Variable: Ln_DER

Ln_DER = -1.666 + 0.581 Ln_ Company Size - 0.080 Ln_ROA - 0.995 Ln_CR + 0.052 Ln_ Sales Stability

### 4.4 Coefficient of Determination (R²)

The coefficient of determination measures the influence of the independent variables and the dependent variable.

**Table 12.** Coefficient of Determination

Model Summary b

| ModelR | | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .839a | .704 | .682 | .36550 |

a. Predictors: (Constant), Ln_StabilityPenjualan, Ln_ROA, Ln_CR, Ln_SizeCompany
b. Dependent Variable: Ln_DER

Based on Table 12, the adjusted value (R2) is 0.682 = 68.2%. The independent variable affects the capital structure 68.2% and the remaining 31.8% is influenced by other independent variables.

## 4.5 Simultaneous Hypothesis Testing (Test Statistic F)

F test whether the independent variables jointly affect the dependent variable

**Table 13.** Statistical Test Results F

| Model Sum of | Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| 1 Regression | 16,865 | 4 | 4,216 | 31,563 | .000b |
| Residual | 7,080 | 53 | .134 | | |
| Total | 23,946 | 57 | | | |

a. Dependent Variable: Ln_DER
b. Predictors: (Constant), Ln_StabilityPenjualan, Ln_ROA, Ln_CR, Ln_Size Company

$F_{count}$ = 31.563, sig = 0.000 and $F_{table}$ (58-5 = 53) = 2.55. $F_{count}$ > $F_{table}$ namely 31.563 > 2.55, so Ho is rejected and Ha accepted, company size, profitability, liquidity and sales stability affect the capital structure of the Food and Beverage Sub-Sector Manufacturing companies listed on the Indonesia Stock Exchange in 2014-2019.

## 4.6 Partial Hypothesis Testing (t Statistical Test)

The t test tests whether the independent variable individually affects the dependent variable.

**Table 14.** Statistical Test Results t
Coefficientsa

| Model | Unstandardized Coefficients B | Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|
| 1 (Constant) | -1,666 | 3,400 | | -.490 | .626 |
| Ln_Company Size | .581 | 1,026 | .046 | .566 | .574 |
| Ln_ROA | -.080 | .054 | -115 | -1,463 | .149 |
| Ln_CR | -995 | .100 | -810 | -9,987 | .000 |
| Ln_StabilityPenjualan | .052 | .068 | .063 | .766 | .447 |

a. Dependent Variable: Ln_DER
t table (58-4 = 54) = 2.004

## 4.7 The Effect of Company Size on Capital Structure

The results of this study are the size of the company has no effect on the capital structure of the Food and Beverage Sub-sector Manufacturing companies listed on the Indonesia Stock Exchange in 2014-2019. The results of the study are inconsistent with Halim (2015: 125), the larger the company size, the greater the use of foreign capital.

## 4.8 Effect of Profitability on Capital Structure

The results of this study are that profitability has no effect on the capital structure of the Food and Beverage Sub-Sector Manufacturing companies listed on the Indonesia Stock Exchange in 2014-2019. The results of this study are inconsistent with Riyanto (2016: 296), a greater level of profit results in higher own capital costs. The higher the debt ratio means the lower the level of solvency so that the collateral for creditors is also getting smaller. This also results in an increase in the cost of debt.

## 4.9. Liquidity Effect to Capital Structure

The results of this study are liquidity has an effect on the capital structure of the Food and Beverage Sub-Sector Manufacturing companies listed on the Indonesia Stock Exchange in 2014-2019. The results of this study are consistent with Herlambang and Marwoto (2014: 147) that current debt is all short-term debt and aims to meet obligations. The company is able to fulfill all of its obligations so that the company is in a liquid state.

## 4.10. The Effect of Sales Stability on Capital Structure

The results of this study are that sales stability has no effect on the capital structure of the Food and Beverage Sub-Sector Manufacturing companies listed on the Indonesia Stock Exchange in 2014-2019. The results of this study are inconsistent with Kamaludin and Rini Indriani (2018: 324) that relatively stable sales make it easier for companies to make loans and be able to pay high loads.

# V. Conclusion

Based on the research results that have been described, for companies, management should pay attention to the capital structure that occurs in the company by increasing the size of the company which is proxied by total assets, liquidity is proxied by the current ratio and sales stability which is proxied by the increase in sales For the next writer, to add independent variables that affect the capital structure.

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