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# The Effect of Liquidity, Sales Growth, and Company Size on Capital Structure (Case Study on Transportation Companies Listed on the Indonesian Stock Exchange)

***Sinta Devi Firanti[1], Wulan Suryandani[2]***
[1]Faculty of Economics and Business, YPPI Rembang University, Rembang, sintadevi566@gmail.com
[2] Faculty of Economics and Business, YPPI Rembang University, Rembang, wulansuryandani@gmail.com

**Keywords**

*Liquidity, Sales Growth, Company Size, Transportation Company, Indonesian Stock Exchange (IDX)*

**Abstract**

*The capital structure of the business is its long-term debt and equity funding. In this study, the capital structure of transportation businesses listed on the Indonesian Stock Exchange (IDX) from 2013 to 2021 was tested and the impact of liquidity, sales growth, and company size was determined. There are 43 transportation businesses listed on the Indonesian Stock Exchange, but only 5 of them are utilized as examples because they have complied with the requirements. Purposive sampling was the sampling strategy utilized. The method for documenting research data is the data gathering method. Multiple linear regression analysis is the technique used for data analysis. The findings revealed that the capital structure is significantly impacted negatively by liquidity, significantly positively by sales growth, and hardly impacted positively by firm size. The adjusted $R^2$ value obtained from the coefficient of determination test is 0.409, which means that the variation in the three independent variables CR, SG, and S can account for 40.9% of the variation in capital structure, with other factors other than those included in the study's model accounting for the remaining 59.1% of the variation.*

## INTRODUCTION

The era of globalization with technological advances that continue to grow requires companies to be better than their competitors. Companies take a variety of actions to improve themselves so they can compete with other businesses. Establishing the funding decisions that financial managers are

directly responsible for making is one of the things that companies do to be better connected to business operations. Funding decisions are very important things taken by managers because they are related to how to finance investment decisions made by the company (Wiagustini, 2014).

The capital structure of a company is its long-term financing mix of equity and debt (Margaretha, 2014). The Debt to Equity Ratio (DER), typically compares total debt to equity and can be used to determine the capital structure (Husnan, 2011). Because the corporation employs more debt than equity, the higher the Debt to Equity Ratio (DER), the larger the risk it faces. Sales growth, liquidity, non-debt tax shelter, and firm size are internal corporate characteristics that influence the capital structure.

The capacity of a business to immediately meet its short-term obligations is known as liquidity (Fahmi, 2016). A ratio between current assets and current liabilities is another measure of liquidity. The company will be able to produce cash flow to finance its operational and investment operations if it uses a lot of current assets. The results of research from Wulandari and Artini (2019), Lasut, et al. (2018), and Deviani and Sudjarni (2018) show that the effect of liquidity on the capital structure has a significant negative effect. According to the pecking order theory, a company with high liquidity tends to reduce the use of debt. The higher the liquidity level, the lower the company's capital structure.

The difference between the total sales for the current period and the prior period as compared to the prior period is known as sales growth. The company's profitability can be impacted by a high or steady sales growth rate, therefore management will take this into account while deciding on the capital structure. The results of research conducted by Wulandari and Artini (2019) and Setiyanti, et al. (2019) show that the effect of sales growth on the capital structure has a significant positive effect. According to the pecking order theory, a company with a high level of liquidity will tend to refrain from utilizing debt since a company with a high level of internal funds will prioritize using those funds above using external money.

One of the elements that businesses must take into account is the size of the company when evaluating how much cash is needed to match the size

or size of the company's assets (capital structure) (Wulandari and Artini, 2019). The results of Wulandari and Artini's research (2019) show that the effect of company size on the capital structure has a significant positive effect, research conducted by Lasut, et al. (2018) shows the same results, while research conducted by Setiyanti et al. (2019) shows different results, namely company size has a positive but insignificant effect on capital structure. Pecking order theory states that large companies must have high assets to generate profits, so companies with high assets require loans in the form of money.

The transportation company is the subject of the riset. One of the key requirements for mobilization to conduct economic operations is transportation. Transportation companies have strong business competition due to high stock trading activity, besides that transportation companies are also part of the needs of society which over time develops so quickly with technological advances and changing tastes. All the close of the first quarter of 2022, all stock sectors increased. The transportation and logistics sector of IDX increased by 2.22%, the technology sector of IDX increased by 1.98%, the industrial sector of IDX increased by 1.92%, the financial sector of IDX increased by 1.69% and the health sector of IDX increased by 1.52% (investor.id). Transportation is divided into three types: air, sea, and land.

Researchers are interested in studying the topic of capital structure, between 2013 until 2021, transportation businesses showing an ups and downs every year and the factors that affect the capital structure produced varying effects.

## METHODS

Only 5 of the 43 transportation businesses listed on the Indonesian Stock Exchange are chosen as samples because they have complied with the requirements. The method for documenting research data is the data gathering method. The information gathered is annual information from the annual financial report information obtained from the Indonesian Stock Exchange (IDX) through www.idx.co.id, the Indonesian Stock Exchange's official

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website (IDX).

Multiple linear regression analysis is the technique used for data analysis. Documentary data is a sort of data that was used in the research. Secondary data were used as the research's data source. As a way of achieving objectives, raising people's standards of living, and encouraging mobilization for economic activity, transportation companies that are listed on the Indonesian Stock Exchange (IDX) were chosen as the population for the study. Purposive sampling is the method of sampling that is employed. The practice of selecting samples with specific criteria is known as purposeful sampling. Purposive sampling is employed because quantitative research or non-generalizable studies are involved. (Sugiyono, 2021).

The Debt to Equity Ratio (DER), which compares total debt to equity, can be used to determine the capital structure. The following formula can be used to compute the Debt to Equity Ratio (DER) ratio:

$$\text{DER} = \frac{\text{Total Utang}}{\text{Total Ekuitas}} \times 100\%$$

The current ratio, which contrasts current assets to current liabilities, is used in the research to calculate liquidity. The formula for the current ratio is as follows:

$$Current\ Ratio = \frac{\text{Aktiva Lancar}}{\text{Pasiva Lancar}} \times 100\%$$

Sales growth can be calculated by dividing the total sales of the current year (year t) by the total sales of the preceding year (year t-1), and then comparing the results. The calculation is as follows:

$$Sales\ Growth = \frac{\text{Penjualan}_t - \text{Penjualan}_{t-1}}{\text{Penjualan}_{t-1}} \times 100\%$$

The following formula can be used to determine the size of a company:

$$Size = \text{Ln. Total aktiva}$$

## RESULTS AND USSION


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**Statistics Description**

**Table 1. Statistical Test Results**

| | N | Min | Max | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Ln.DER | 45 | 3,31 | 6,03 | 4,4482 | 0,68812 |
| Ln.CR | 45 | 2,11 | 5,49 | 4,3551 | 0,72567 |
| Ln.SG | 19 | -1,05 | 3,92 | 2,2838 | 1,17430 |
| Ln.S | 45 | 2,74 | 3,02 | 2,9138 | 0,08945 |
| Valid N (*listwise*) | 19 | | | | |

Source: Data Processed Using SPSS ver. 25 (2022)

The lowest and greatest values for the capital structure variable (DER) reported by transportation businesses are 3.31% and 6.03%, respectively. The average value is 4.4482%, and the standard deviation is 0.68812%. This indicates that the capital structure has a low variance because the standard deviation value is 3.76008% less than the average value.

The lowest and greatest values for the liquidity variable (CR) reported by transportation businesses are 2.11% and 5.49%, respectively. The average value is 4.3551%, and the standard deviation is 0.72567%. This indicates that liquidity has a low variance because the standard deviation value is 3.62943% lower than the average value.

The lowest and highest values for the sales growth variable (SG) reported by transportation businesses are -1.05% and 3.92%, respectively. The average value is 2.2838%, and the standard deviation is 1.17430%. Because the standard deviation value is lower than the average value by a difference of 1.1095%, it follows that sales growth has a low variance value.

The lowest and greatest values for the firm size variable (S) reported by transportation companies are 2.74% and 3.02%, respectively. The average value is 2.9138%, and the standard deviation is 0.08945%. Because the average value is higher than the standard deviation value by 2.82435%, the capital structure is said to have a small variation value.

**Classic Assumption Test**

**Normality Test**

**Table 2. Normality Test Results**

| | | *Unstandardized Residual* |
|---|---|---|
| N | | 19 |
| *Normal Parameters[a,b]* | *Mean* | ,0000000 |
| | *Std. Deviation* | ,44088157 |
| *Most Extreme Differences* | *Absolute* | ,135 |
| | *Positive* | ,085 |
| | *Negative* | -,135 |
| *Test Statistic* | | ,135 |
| *Asymp. Sig. (2-tailed)* | | ,200[c,d] |

Source: Data Processed Using SPSS ver. 25 (2022)

Results from Table 2 indicate that the Asymp. Sig. (2-tailed) of 0.200 is greater than the value of 0.05. Thus, it can be said that the residual data is regularly distributed.

**Autocorrelation Test**

**Table 3. Autocorrelation Test Results**

| | *Unstandardized Residual* |
|---|---|
| *Test Value* | ,06606 |
| *Cases < Test Value* | 9 |
| *Cases >= Test Value* | 10 |
| *Total Cases* | 19 |
| *Number of Runs* | 10 |
| Z | ,000 |
| *Asymp. Sig. (2-tailed)* | 1,000 |

Source: Data Processed Using SPSS ver. 25 (2022)

The results are shown in Table 3, where it is clear that the Asymp. Sig. value of 1.000 indicates that there is no autocorrelation in the data because the value is greater than 0.05.

**Heteroscedasticity Test**

**Table 4. Heteroscedasticity Test Results**

| Model | | *Unstandardized Coefficients* | | *Standardized Coefficients* | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (*Constant*) | 2,236 | 1,712 | | 1,306 | ,211 |
| | Ln.CR | ,019 | ,090 | ,052 | ,208 | ,838 |
| | Ln.GS | ,015 | ,049 | ,075 | ,298 | ,770 |
| | Ln.S | -,684 | ,583 | -,294 | -1,172 | ,259 |

Source: Data Processed Using SPSS ver. 25 (2022)

According to Table 4's findings, all independent variable significant values are higher than 0.05. Thus, it can be said that the independent variables do not exhibit heteroscedasticity.

**Multicollinearity Test**

**Table 5, Multicollinearity Test Results**

| Model | *Unstandardized Coefficients* | | *Standardized Coefficients* | t | Sig. | *Collinearity Statistics* | |
|---|---|---|---|---|---|---|---|
| | B | Std. Error | Beta | | | *Tolerance* | VIF |
| 1 (*Constant*) | 292,862 | 149,930 | | 1,953 | ,058 | | |
| CR | -,749 | ,235 | -,449 | -3,192 | ,003 | ,976 | 1,025 |
| GS | -,227 | ,591 | -,054 | -,384 | ,703 | ,991 | 1,009 |
| S | -6,116 | 7,819 | -,110 | -,782 | ,439 | ,980 | 1,020 |

Source: Data Processed Using SPSS ver. 25 (2022)

According to Table 5, it is clear from the tolerance and VIF values that none of the independent variables included in the research were multicollinear. The tolerance and VIF values of all independent variables are greater than 0.10, and the VIF value is greater than 10.

**Hypothesis Test**

**Table 6, Hypothesis Test Results**

| Model | *Unstandardized Coefficients* | | *Standardized Coefficients* | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| 1 (*Constant*) | 3,413 | 3,434 | | ,994 | ,336 |
| Ln.CR | -,460 | ,180 | -,465 | -2,553 | ,022 |
| Ln.GS | ,248 | ,099 | ,463 | 2,509 | ,024 |
| Ln.S | ,831 | 1,170 | ,131 | ,710 | ,488 |

Source: Data Processed Using SPSS ver. 25 (2022)

According to Table 6, the following can be explained:

1. According to the first theory, the current ratio significantly affects capital structure negatively. Table 6 shows that the current ratio coefficient value is -0.460, which is negative, and that its significance value is 0.022, which equals 0.05. We can therefore say that the first hypothesis is correct.
2. Sales growth has a notable favorable impact on capital structure, as the second hypothesis demonstrates. As noted in Table 6, the sales growth coefficient is 0.248, which indicates positive growth, and has a significance value of 0.024, which indicates a growth rate of less than 0.05. The second hypothesis is therefore acceptable, it can be said.
3. The third hypothesis shows that the size value has a positive and insignificant effect on the capital structure. In Table 6, it can be seen that the size coefficient value is 0.831 which means positive with a significance value of 0.488 which means > 0.05. So it can be concluded that the third hypothesis is rejected.

Table 6 provides the basis for the regression equation model, which is as follows:

DER = 3,413 - 0,460 CR + 0,248 SG + 0,831 S + e

Description:

DER : *Debt To Equity Ratio*

CR : *Current Ratio*

SG : *Sales Growth*

S : *Size*

e : Standard Error

**Determination Coefficient Test**

As observed in Table 7, the modified $R^2$ value is 0.409, meaning that the variance in the three independent variables CR, SG, and S may account for 40.9% of the variation in capital structure, while the remaining 59.1% is explained by other factors outside the model in the research done.

## CONCLUSION

The purpose of the research is to demonstrate how well the independent variable affects the dependent variable. The findings of the investigation of transportation companies listed on IDX come to the following conclusions:

1. The capital structure of the transportation businesses listed on IDX is significantly impacted negatively by the liquidity variable (CR). This substantial internal resources. As a result, they choose to support their operations internally first before turning to external sources of funding. (Wulandari and Artini, 2019).

**Table 7. Determination Coefficient Test Results**

| Model | R | *R Square* | *Adjusted R Square* | *Std. Error of the Estimate* |
|---|---|---|---|---|
| 1 | 0,712[a] | 0,508 | 0,409 | 0,48296 |

Source: Data Processed Using SPSS ver. 25 (2022)

2. The capital structure of transportation businesses listed on IDX is significantly positively impacted by the sales growth variable (SG). From the findings, it can be inferred that as sales growth increases, so will the capital structure. The company's profitability can be impacted by a high or

consistent sales growth rate, therefore management will take this into account while deciding on the capital structure. The pecking order theory explains why businesses with rapid sales growth typically require additional funding for operating expenses.

3. Transport businesses listed on IDX capital structure are positively and negligibly impacted by the company size variable (S). It implies that as a firm gets bigger, its capital structure expands too, but the impact is little. According to the pecking order theory, which holds that because huge businesses must have significant assets to make a profit, their size has no bearing on their capital structure, the third hypothesis does not hold.

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