

# The Analysis of Factors Related to the Company Performance with Capital Structure as an Intervening Variable in the Transportation Industry in Indonesia

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## Abstract

*This study aims to examine the direct effect of the relationship between asset structure, growth, company size and business risk on the capital structure of transportation companies, as well as the indirect effect of asset structure, growth, company size and business risk on company performance through capital structure as an intervening variable. Population are companies in the Transportation industry listed on the Indonesia Stock Exchange (IDX) in 2015-2019. From this population, 145 samples from 29 transportation companies were selected as the target population, all of which became the research sample. The research method used is panel data regression. The test results reveal that the asset structure, growth and company size have a positive effect on the capital structure of the Transportation sub-sector companies listed on the IDX for the 2015-2019 period. Meanwhile, business risk does not have a positive influence on the capital structure of transportation sub-sector companies listed on the Indonesia Stock Exchange for the 2015-2019 period. In addition, in this study, the variables of asset structure, growth, business risk were positively related to the company's performance, while the variable of company size had no positive effect on the company's performance. Furthermore, the capital structure variable has a positive effect on company performance, the capital structure variable as an intervening variable explains that capital structure has no effect in intervening between growth and company business risk on company performance. While the asset structure variable and company size on company performance with capital structure as an intervening variable explains that capital structure has a significant effect in intervening between asset structure, company size and financial performance in transportation companies listed on the Indonesia Stock Exchange for the 2015-2019 period.*

## Keywords

asset structure; growth; company size; business risk; capital structure; company performance



## I. Introduction

Company performance needs to be explored by designing all financial components (Ivashkovskaya & Stepanova, 2011). In improving the company's financial performance, steps are needed to support increased profitability. Profitability is the most frequently discussed subject in the financial management of an organization (Pinková, 2012). Because the performance assessment of a company will be seen from the level of profitability, although there are other factors related to profitability, one of which is the capital structure (Alipour, 2012). Despite the many studies on firm performance and capital structure, no specific method has been developed for managers to determine a good capital structure (Sheikh & Wang, 2011). It is an obligation for the company's management to determine the

right capital structure and ensure that their business continues to run well so that the company's performance increases.

According to Vätavu (2015) that companies will not be motivated to grow if they only use their internal funding and also do not access debt needs for future investment. This is because companies will use debt when they are really experiencing financial difficulties, face high business risks, or when they are unable to complete payments due to a lack of cash. Therefore, the capital structure policy is one of the most important things in financial decisions, because it is interrelated with other financial decisions (Gitman & Zutter, 2012).

Baloch et al. (2015) suggested at the end of his research that future research could investigate into other sectors. Meanwhile, for a better understanding of how the factors related to capital structure on the company's financial performance, future research should refer to various other performance indicators related to the company's financial performance capital structure and company performance (Vätavu, 2015). Based on the results of previous studies, the gap in this study is the need for research in other sectors, namely Transportation, the research period 2015-2019, adding financial performance and business risk variables using the Altman Z Score. Based on that, the researcher will conduct a comprehensive research related to the factors related to the capital structure of the company's performance in the transportation industry listed on the Indonesia Stock Exchange for the 2015-2019 research period. The purpose of this study is to determine the relationship between asset structure, company growth, company size, business risk, capital structure on the performance of transportation companies listed on the Indonesia Stock Exchange, and another objective is to measure how much Capital Structure factors relate to company performance.

## II. Review of Literature

### 2.1 Company Performance

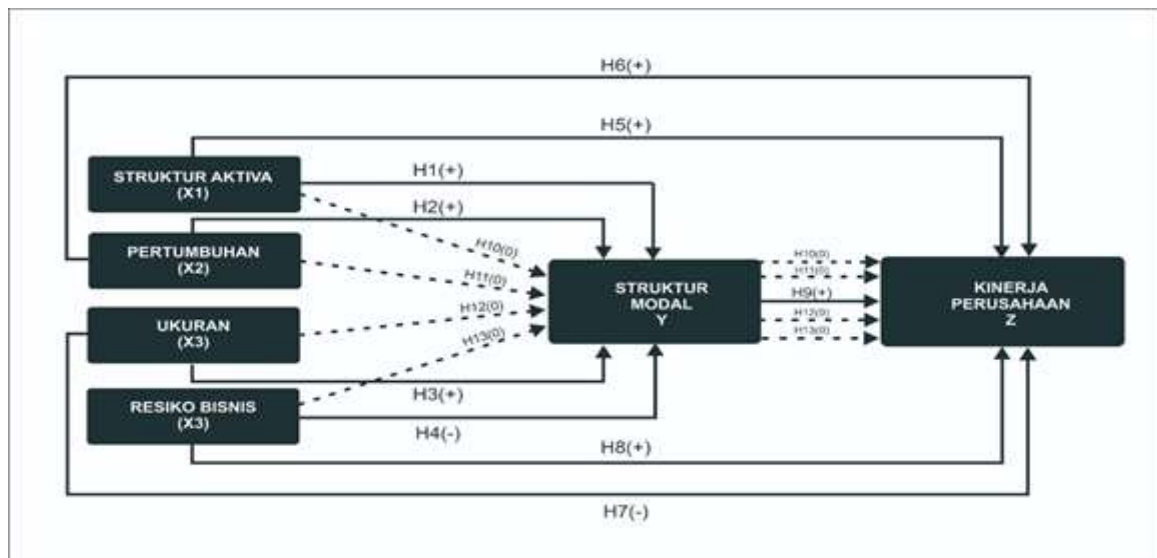
Munawir (2010) said that the company's financial performance is one of the evaluation guidelines regarding the company's financial requirements which is carried out according to an analysis of the company's financial comparison. Parties who have an interest really need output according to the measurement of the company's financial performance in order to know the company's requirements and the level of success of the company to carry out operational activities. Sawir (2005) conducted an assessment of financial performance using financial comparison analysis, it is necessary to know the standard of financial ratios. Yuwono et al. (2003) through the use of financial comparison standards, companies can choose whether the company's financial performance is good or not. The assessment is carried out through the use and comparison of financial ratios obtained using standard financial ratios. In general, the company's financial performance is categorized as good if the company's financial ratios have a value equal to or above the standard financial ratios. Measurement according to company performance from Munawir (2010) uses a proxy using Return on Assets as a result, the formula can be written as:  
*Return on Assets* = Net Profit / Total Assets.

### 2.2 Capital Structure

The capital structure is a balance between the use of loan capital consisting of permanent short-term debt and long-term debt (equity) owned consisting of preferred stock and common stock (Kim, 2013). Funding needs to strengthen the company's capital structure obtained internally and externally, but funding sources must come from safe

sources and if used, it is a source of funds that must have value to strengthen the company's financial capital structure (Pattweekongka & Kulkanya, 2014). Companies with high debt have a tendency to pay small dividends, and vice versa, the smaller the debt to equity ratio, the greater the dividend payments (Azmal, Negoro & Syah, 2019). Measurement of the ratio used in the Capital Structure using the Debt to Equity Ratio and the formula can be seen as follows:

$$\text{Debt to Equity Ratio} = \text{Total Liabilities} / \text{Total Equity}$$



*Figure 1. Hypothesis Model*

### III. Research Methods

#### 3.1 Sample and Population

The research population used is a public transportation sector company listed on the Indonesia Stock Exchange. The data sampling technique was purposive sampling, the objects in this study were 47 companies and 29 transportation companies were sampled in this study because of the completeness of the financial report data and in accordance with the research criteria, namely having consecutive financial statements from 2015 -2019. The sample taken is expected to be representative of other periods, besides that the period is still new or updated. As for 2020, it is still in the process of compiling financial reports and in economic conditions in Indonesia and even the world is experiencing a crisis as a result of the Covid-19 pandemic, so it is feared that it will distort research results. To answer the research questions, the authors use a quantitative approach by testing the research model, the significance of the relationship between variables and factors, and hypotheses (Saunders et al., 2009). In the current economic development, manufacturing companies are required to be able to compete in the industrial world (Afiezan, 2020).

#### 3.2 Measurement Analysis

In this study, there are 5 exogenous variables (independent variables) namely Asset Structure, Company Growth, Company Size, Business Risk and Capital Structure, and 1 endogenous variable (dependent variable) namely Company Performance. In this study, the data obtained were using the financial statements of transportation companies listed on the IDX or the Indonesia Stock Exchange for the period 2015 - 2019. The data collected were analyzed using Panel data regression and processed using the Eviews version 11 application.

## IV. Results and Discussion

### 4.1 Results

#### a. Research Descriptive Statistics

The descriptive statistics of this study include the mean (mean), standard deviation, and extreme values (maximum and minimum values). Following are the results of descriptive analysis of 145 secondary data from 29 different companies for each variable in the study:

**Table 1.** Descriptive Analysis Results

	SA_X1_	GROWTH_X2_	LN_SIZE_X3_	RISK_X4_	DER_Y_	ROA_Z_
Mean	0.268849	0.807993	20.54338	1.955558	1.608222	0.525415
Median	0.199336	0.779174	19.91497	1.593856	0.946672	0.126028
Maximum	0.997619	3.989950	29.63578	7.397996	41.68158	7.000856
Minimum	0.000565	0.010118	11.85742	-0.822519	0.160854	0.000296
Std. Dev.	0.236623	0.827109	4.907474	1.463033	3.536580	1.115611
Skewness	1.571168	1.593879	0.353905	1.424209	10.17288	3.183563
Kurtosis	4.879762	5.983604	2.165812	5.611320	115.3238	13.52571
Jarque-Bera	81.00531	115.1765	7.231054	90.21706	78726.42	914.2908
Probability	0.000000	0.000000	0.026903	0.000000	0.000000	0.000000
Sum	38.69314	117.1589	2978.787	283.5559	233.1922	76.18522
Sum Sq. Dev.	8.062596	98.51163	3467.998	308.2270	1801.065	179.2207
Observations	145	145	145	145	145	145

Source: Eviews data processing results

Based on Table 1, it shows that the highest asset structure (SA) value (0.9976) was at PT Maming Enam Sembilan Mineral Tbk (AKSI) in 2015 and the lowest asset structure (SA) value (0.000565) was at Trada Alam Minera Tbk. (TRAM) in 2019. With an average value of 0.276736 which means it is quite good because the higher the value of the asset structure (SA) of a company, the higher the number of fixed assets owned by the company. Furthermore, Table 1 shows that the highest growth value (GROWTH) (7.981716) was at PT Maming Enam Sembilan Mineral Tbk (AKSI) in 2017 and the lowest growth value (GROWTH) (0.010118) was at PT Mitrahahtera Segara Sejati Tbk (MBSS) in 2018. In Table 1 the average value of growth (GROWTH) shows 0.8079 / 80.79%,

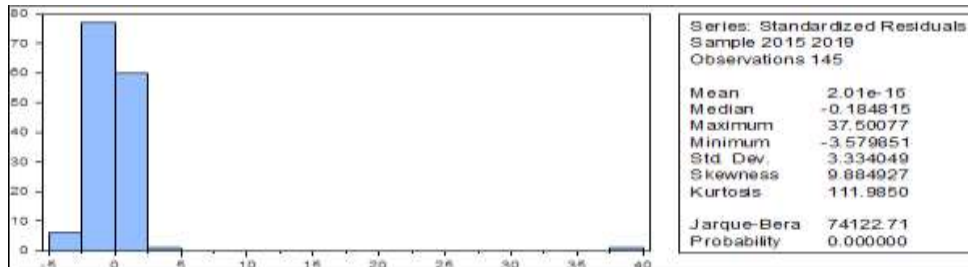
Based on Table 1, it shows that the highest size value (SIZE) of 29.63 was at PT Blue Bird Tbk (BIRD) in 2019 and the lowest size value (SIZE) of 11.86 was at Trada Alam Mineral Tbk. (TRAM) in 2019. In addition, Table 1 also shows that the average size (SIZE) of 20.54 means that the average number of assets owned by the company is Rp. 665,095,793,857. while the highest business risk (RISK) value (7.40) was at PT Maming Enam Sembilan Mineral Tbk (AKSI) in 2017 and the lowest business risk (RISK) value (-0.82) was at PT Air Asia Indonesia Tbk (CMPP) in 2018. The average value of business risk (RISK) is 1.95, which means that the average company has a safe category of business risk. Meanwhile, Table 1 shows that the highest capital structure (DER) value (41.68158) was at PT Air Asia Indonesia Tbk (CMPP) in 2017 and the lowest capital structure (DER) value (0.160854) was at PT Capitol Nusantara Indonesia Tbk (CANI) in 2017. While the average capital structure (DER) shows a value of 1.608 which means that the average company in the study has a fairly large debt level because it exceeds 1.



**b. Classic Assumption Test**

**1. Normality Test**

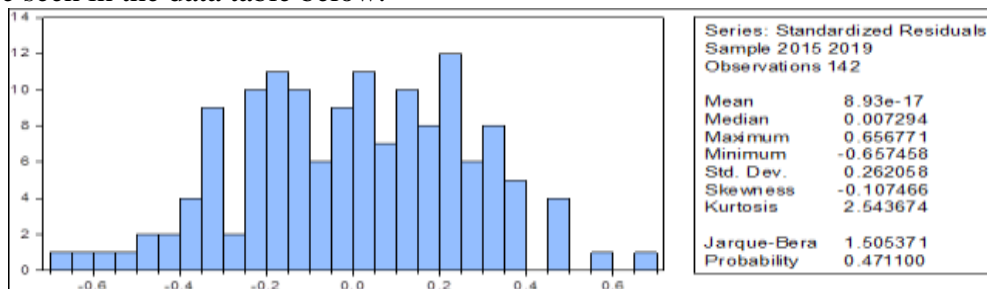
In this study, the normality test used Jarque-Bera. Where if the significant level (p-value) > 5% alpha level then the data is normally distributed and vice versa if the significant level (p-value) < 5% alpha level then it is not normally distributed.



Source: Eviews data processing results

**Figure 2. Normality Graph**

Based on the output above, it is known that the p-value is 0.000 (<0.05) so it can be concluded that the data is not normally distributed. For this reason, data transformation is carried out using the Log formula for each variable. The results of the data transformation can be seen in the data table below.



Source: Eviews data processing results

**Figure 3. Normality Test**

The results of the tests carried out, the probability value shows a number of 0.4711 (> 0.05), which means that the residual data is normally distributed.

**2. Multicollinearity Test**

Multicollinearity testing in this study uses a correlation matrix (correlation matrix). If there is a strong correlation between one variable and another (with a value greater than 0.8), then there is an indication of multicollinearity.(Gujarati, 2003) The criteria are as follows:

- The value of correlation coefficient between variables < 0.8 then free multicollinearity
- The value of correlation coefficient between variables > 0.8 then multicollinearity occurs

**Table 2. Multicollinearity Test**

	LOGSA	LOGGRO...	LOGSIZE	LOGRISK
LOGSA	1.000000	0.399506	0.474995	0.602716
LOGGRO...	0.399506	1.000000	0.383981	0.297527
LOGSIZE	0.474995	0.383981	1.000000	0.422844
LOGRISK	0.602716	0.297527	0.422844	1.000000

Source: Eviews data processing results

Based on the tests that have been carried out, it is known that the entire value of the correlation coefficient between the independent variables does not have a value greater than 0.8. Thus, it can be concluded that there is no multicollinearity between independent variables.

### c. Panel Data Regression Model Selection

There are three models used for panel data, namely the common effect model (pooled least square), fixed effect model, and random effect model. To determine the most appropriate model, testing is carried out.

### d. Chow Test

*Chow-testor* the Chow test is used to select the model whether to use the common effect model or the fixed effect model. This test is carried out with the Chi-square statistical test with the following hypotheses:

H0: The model follows the common effect model

H1: The model follows the fixed effect model

$\alpha = 5\%$

Conditions: Reject H0 if the value of prob. Cross-section Chi-square  $< \alpha$

Based on the results of the chow-test above, it can be seen that the probability value of the Chi-square Crosssection is 0.0000 where the value is less than 0.05. Thus, H0 is rejected and H1 is accepted. That is, the estimation model approach follows the fixed effect model. In other words, the common effect model is better than the fixed effect model.

### e. Hausman Test

*Hausman testor* Hausman test is conducted to choose which model is better, whether to use the fixed effect model or the random effect model. The hypothesis in the Hausman test is as follows:

H0: The model follows the random effect model

H1: *The model follows the fixed effect model*

$\alpha = 5\%$

Conditions: Reject H0 if the value of random cross-section prob.  $< \alpha$

The results of the random Housman probability cross-section test are 0.0118, which means it has a significance less than the confidence level ( $\alpha = 5\%$ ). So that the decision taken in the Hausman test is H0 is rejected and H1 is accepted. In other words, the model follows the fixed effect model. Or it can be concluded that the fixed effect model is better than the random effect model.

### f. Best Panel Data Regression Model

Based on the results of the tests that have been carried out, the selection of the panel data regression model can be concluded that the best model is the fixed effect model.

### g. First Panel Data Hypothesis Testing (Fixed Effect Model)

#### F-test

The -F test is used to test the effect of the independent variables together or simultaneously on the dependent variable. Test criteria - F as follows: 1) If probability (p-value)  $>$  alpha level 0.05 ( $\alpha$ ), then the variables are Asset Structure (LogSA), Growth (LogGROWTH), Size (LogSIZE), and Business Risk (LogRISK) ) simultaneously has no effect on the variable Capital Structure (LogDER). 2) If probability (p-value)  $<$  alpha level ( $\alpha$ ), then Asset Structure (LogSA), Growth (LogGROWTH), Size (LogSIZE), and

Business Risk (LogRISK) variables simultaneously affect the Capital Structure variable (LogDER) .

**Table 3. Hypothesis Testing**

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.837617	Mean dependent var	-0.008978
Adjusted R-squared	0.789945	S.D. dependent var	0.331855
S.E. of regression	0.152095	Akaike info criterion	-0.728308
Sum squared resid	2.521497	Schwarz criterion	-0.041391
Log likelihood	84.70989	Hannan-Quinn criter	-0.449173
F-statistic	17.57035	Durbin-Watson stat	1.395636
Prob(F-statistic)	0.000000		

Source: Eviews data processing results

Seen from Table 3. It is known that the p-value of the F-Statistic is 0.00000 < 0.05. Therefore, it can be concluded that LogSA, LogGROWTH, LogSIZE, LogRISK, and LogDER simultaneously affect LogROA on 29 Transportation subsector companies on the Indonesia Stock Exchange for the 2015-2019 period.

#### **h. Coefficient of Determination (R<sup>2</sup>)**

The coefficient of determination describes the influence of the LogSA, LogGROWTH, LogSIZE, and LogRISK variables on the LogDER variable or to examine the degree of closeness of the relationship between variables. Based on the results of data processing in Table 3, the R-Squared value is 0.837. This means that the independent variables in this study, namely LogSA, LogGROWTH, LogSIZE, and LogRISK can explain the dependent variable, namely LogDER by 83.7%, the remaining 16.3% is explained by other variables outside the research model.

#### **i. t-test**

The t statistic test was used to determine the effect of an individual independent variable in explaining the dependent variables. The level of significance ( $\alpha$ ) used is 5% (0.05). Criteria for acceptance and rejection of the hypothesis are based on the significance value of p-value. If the p-value (significance) > , then the research alternative hypothesis is rejected. On the other hand, if the p-value < , then the alternative hypothesis in the study is accepted. The hypothesis with the t test in this study is as follows:

**Table 4. Regression Coefficient and T-Stat**

Dependent Variable: LOGDER				
Method: Panel Least Squares				
Date: 05/29/21 Time: 11:30				
Sample: 2015 2019				
Periods included: 5				
Cross-sections included: 29				
Total panel (unbalanced) observations: 145				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.585789	0.267381	-2.190838	0.0306
LOGSA	0.127286	0.060834	2.092342	0.0387
LOGGROWTH	0.029460	0.025820	1.141009	0.2564
LOGSIZE	0.081501	0.028594	2.850264	0.0052
LOGRISK	-0.210250	0.073116	-2.875563	0.0049

Source: Eviews data processing results

The equations of the first model are as follows:

$$\text{LogDER} = -0,585789 + 0,127286 \text{ LogSA} + 0,029460 \text{ LogGROWTH} + 0,081501 \text{ LogSIZE} - 0,210250 \text{ LogRISK}$$

From the above equation, it shows that the independent variables Asset Structure (Log SA), Growth (Log GROWTH), Size (Log SIZE) have a positive relationship with the Capital Structure variable (Log DER). While the Business Risk variable (Log RISK) has a negative influence on the Capital Structure variable (Log DER). And for each t-stat test will be discussed, namely: 1). The results of hypothesis testing (Table 4) show that the LogSA regression coefficient is 0.127 with a t-stat of 2.09 ( $> 1.96$ ) and a p-value below alpha 0.05 (0.0387). This shows that the asset structure has a positive and significant effect on the capital structure (DER). This means that the first hypothesis can be accepted and  $H_0$  is rejected. 2) The results of hypothesis testing (Table 4) show that the LogGROWTH regression coefficient is 0.0294 with a t-stat of 1.141 ( $< 1.96$ ) and p-value above alpha 0.05 (0.2564). This shows that growth has a positive and insignificant effect on capital structure (DER). This means that the second hypothesis can be rejected and accept  $H_0$ . 3) The results of hypothesis testing (Table 4) show that the LogSIZE regression coefficient is 0.0815 with a t-stat of 2.85 ( $> 1.96$ ) and a p-value below alpha 0.05 (0.005). This shows that the size of the company has a positive and significant effect on the capital structure (DER). This means that the third hypothesis can be accepted and  $H_0$  is rejected. 4) The results of the hypothesis test (Table 4) show that the LogRISK regression coefficient is -0.210 with a t-stat of 2.87 ( $> 1.96$ ) and a p-value below alpha 0.05 (0.0051). This shows that business risk has a negative and significant effect on the capital structure (DER). This means that the fourth hypothesis can be accepted and  $H_0$  is rejected.

#### j. Second Panel Data Hypothesis Testing (Fixed Effect Model)

##### F-test

The -F test is used to test the effect of the independent variables together or simultaneously on the dependent variable. The test criteria - F are as follows: first if the probability (p-value)  $>$  significant level (variabel), then the variables of Asset Structure (LogSA), Growth (LogGROWTH), Size (LogSIZE), Business Risk (LogRISK) and Capital Structure (LogDER) simultaneously has no effect on the variable Company Performance (LogROA). Second, if the probability (p-value)  $<$  significant level ( $\alpha$ ), then the variables of Asset Structure (LogSA), Growth (LogGROWTH), Size (LogSIZE), Business Risk (LogRISK) and Capital Structure (LogDER) simultaneously affect the Performance variable. Company (LogROA).

**Table 5.** Hypothesis Testing  
Effects Specification

Cross-section fixed (dummy variables)			
R-squared	0.668138	Mean dependent var	-0.913049
Adjusted R-squared	0.566735	S.D. dependent var	0.756994
S.E. of regression	0.498275	Akaike info criterion	1.649850
Sum squared resid	26.81406	Schwarz criterion	2.357583
Log likelihood	-83.13932	Hannan-Quinn criter.	1.937444
F-statistic	6.588972	Durbin-Watson stat	1.898513
Prob(F-statistic)	0.000000		

Source: Eviews data processing results

Seen from Table 5. It is known that the p-value of the F-statistic is 0.00000  $<$  0.05. Therefore, it can be concluded that LogSA, LogGROWTH, LogSIZE, LogRISK, and LogDER simultaneously have an effect on LogROA on 29 Transportation Subsector companies on the Indonesia Stock Exchange for the 2015-2019 period.



### k. Coefficient of Determination (R<sup>2</sup>)

The coefficient of determination describes the magnitude of the influence of the LogSA, LogGROWTH, LogSIZE, LogRISK, and LogDER variables on the LogROA variable or to examine the degree of closeness of the relationship between variables. Based on the results of data processing in Table 5, the R-Squared value is 0.668. This means that the independent variables in this study DER, namely LogSA, LogGROWTH, LogSIZE, LogRISK and LogDER can explain the dependent variable, namely LogROA by 66.8%, the remaining 33.2% is explained by other variables outside the research model. .

### l. t-test

Statistical t test is used to determine the effect of an independent variable individually in explaining the variation of the dependent variable. The level of significance ( $\alpha$ ) used is 5% (0.05). Criteria for acceptance and rejection of the hypothesis are based on the significance value of p-value. If p-value (significance) > , then the research alternative hypothesis is rejected. On the other hand, if the p-value < , then the alternative hypothesis in the study is accepted. The hypothesis with the t test in this study is as follows:

**Table 6.** Regression Coefficient and T-Stat

Dependent Variable: LOGROA				
Method: Panel Least Squares				
Date: 05/29/21 Time: 11:33				
Sample: 2015 2019				
Periods included: 5				
Cross-sections included: 29				
Total panel (unbalanced) observations: 145				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.024306	0.895038	-0.027156	0.9784
LOGSA	0.107250	0.203259	0.527652	0.5988
LOGGROWTH	0.150405	0.085090	1.767586	0.0800
LOGSIZE	-0.084644	0.097104	-0.871677	0.3853
LOGRISK	0.169303	0.248453	0.681429	0.4971
LOGDER	1.409524	0.313791	4.491924	0.0000

Source: Eviews data processing results

The equations for the second model are as follows:

$$\text{LogROA} = -0,024 + 0,107 \text{ LogSA} + 0,150 \text{ LogGROWTH} - 0,085 \text{ LogSIZE} + 0,169 \text{ LogRISK} + 1,409 \text{ LogDER}$$

From the above equation, it shows that the independent variables of asset structure (LogSA), Growth (LogGROWTH), Business Risk (LogRISK) and Capital Structure (LogDER) have a positive relationship with the Company's Performance variable (LogROA). While the variable Size (LogSIZE) has a negative relationship to the variable Company Performance (LogROA). And for each t-stat test will be carried out to test as follows: 1) The results of hypothesis testing (Table 6) show that the LogSA regression coefficient is 0.107 with a t-stat of 0.527 (<1.96) and a p-value above alpha 0.05 (0.5988). This shows that the asset structure has a direct positive and insignificant effect on the company's performance (ROA). This means that hypothesis 5 can be rejected and H0 is accepted. 2) The results of hypothesis testing (Table 6) show that the LogGROWTH regression coefficient is 0.150 with a t-stat of 1.767 (<1.96) and a p-value above alpha 0.05 (0.08). This shows that growth has a positive and significant direct effect on company performance (ROA). It can be concluded that H6 is rejected and H0 is accepted. 3) The results of hypothesis testing (Table 6) show that the LogSIZE regression coefficient is -0.085 with a t-stat of 0.872 (<1.96) and a p-value above alpha 0.05 (0.3853). This shows that the size of the company has a negative and not significant direct effect on the company's performance (ROA). It can be concluded that H7 is rejected and H0 is accepted. 4) The results of hypothesis testing (Table 6) show that the LogRISK regression coefficient

is 0.169 with a t-stat of 0.68 ( $<1.96$ ) and a p-value above alpha 0.05 (0.497). This shows that business risk has a positive and significant direct effect on company performance (ROA). It can be concluded that H8 is accepted and H0 is rejected. 5) The results of hypothesis testing (Table 6) show that the LogDER regression coefficient is 1.41 with a t-stat of 4.49 ( $> 1.96$ ) and a p-value below alpha 0.05 (0.0000). This shows that the capital structure has a positive and significant effect on the company's performance (ROA). It can be concluded that H9 is accepted and H0 is rejected.

### m. Indirect Relationship Path Analysis

To answer the ten to thirteen hypotheses, a path analysis was carried out on the variables LogSA, LogGROWTH, LogSIZE, LogRISK against LogROA through LogDER. Asset structure (LogSA), growth (LogGROWTH), Size (LogSIZE), Business Risk (LogRISK) and Capital Structure (LogDER) have a positive relationship with the Company's Performance variable (LogROA).

**Table 7.** Path Analysis

Hypothesis	Indirect Relationship	Direct Influence	Indirect Influence	Total Influence
H10	LogSA -> LogDER -> LogROA	0.107	0.179	0.287
H11	LogGROWTH -> LogDER -> LogROA	0.150	0.042	0.192
H12	LogSIZE -> LogDER -> LogROA	-0.085	0.115	0.030
H13	LogRISK -> LogDER -> LogROA	0.169	-0.296	-0.127

Source: Eviews data processing results

Based on the results of the calculations in Table 7 above, it is known that the total influence value is 0.287 with a direct effect of 0.107 and an indirect effect of 0.179, which means that the indirect effect is greater than the direct influence value, thus indicating that LogSA indirectly through LogDER has a significant effect on LogROA. It can be concluded that H10 is accepted. The results of the calculation in Table 7 above show that the total influence value is 0.192 with a direct effect of 0.150 and an indirect effect of 0.042 which means that the indirect effect is smaller than the direct influence value, which indicates that indirectly LogGROWTH through LogDER has an insignificant effect on LogROA. It can be concluded that H11 is rejected.

The results of the calculation in Table 7 show that the total effect value is 0.030 with a direct effect of -0.085 and an indirect 0.1158 which means that the indirect effect is greater than the direct influence value, this indicates that LogSIZE indirectly through LogDER has a significant effect on LogROA. It can be concluded that H12 is accepted. The results of the calculation in Table 7 show that the total effect value is -0.0127 with a direct effect of 0.169 and an indirect effect of -0.296 which means that the indirect effect is smaller than the direct influence value, which indicates that LogRISK indirectly through LogDER has an insignificant effect. against LogROA. It can be concluded that H13 is rejected.

Based on the results of the analysis above, the following is an explanation of the research hypothesis carried out by researchers as shown in table 8 below:

**Table 8.** Hypothesis Test Results

Hypothesis	P- Value	Hypothesis Test Results
H1: Asset Structure has a positive effect on Capital Structure	0.0387	Accepted

H2: Growth has a positive effect on Capital Structure	0.2564	Rejected
H3: Firm Size has a positive effect on Capital Structure	0.005	Accepted
H4: Business Risk has a negative effect on Capital Structure	0.0051	Accepted
H5: Asset Structure is positively related to Company Performance	0.5988	Rejected
H6: Growth is positively related to Company Performance	0.0800	Rejected
H7: Company size has a negative effect on company performance	0.3853	Rejected
H8: Business Risk is positively related to Company Performance	0.497	Accepted
H9: Capital Structure has a positive effect on Company Performance	0.0000	Accepted
H10: Asset Structure Affects Company Performance with Capital Structure as Intervening Variable.	0.179	Accepted
H11: Growth has an effect on Company Performance with Capital Structure as an Intervening Variable	0.042	Rejected
H12: Firm Size has an effect on firm performance with Capital Structure as an Intervening Variable	0.1158	Accepted
H13: Business risk affects the company's performance with Capital Structure as an Intervening Variable.	-0.296	Rejected

## 4.2 Discussion

### a. Relationship between Asset Structure and Capital Structure

Based on the results of the analysis that has been done by the researcher, it can be explained that the average value shows a pretty good value because the higher the value of the asset structure of a company, the higher the number of fixed assets owned by the company, the impact of the high number of fixed assets owned will provide benefits to the company so that it will reduce the liquidity of the company itself because it focuses on Fixed Assets. The company's focus on increasing Fixed Assets usually occurs in companies that are indeed engaged in mining, transportation and property where they will buy assets in large quantities for their operational business, Najjar & Petrov (2011); Ahmed et al. (2010); Baloch et al. (2015); Alipour et al. (2015) which explains that the asset structure is positively related to the capital structure.

### b. Relationship between Growth and Capital Structure

Based on the results of the analysis that has been carried out by the researcher, it can be explained that the average value indicates that the average value of company growth in this research sample experiences positive sales growth from year to year, the highest sales growth value is PT Air Asia Indonesia Tbk (CMPP) in 2017 and the lowest growth value is PT Mitrahahtera Segara Sejati Tbk (MBSS) in 2018. While the total average growth in the transportation industry is 80.79%. This shows that the company's sales growth is increasing every year, but in increasing sales, transportation companies use large debt to provide assets as one factor to be competitive in sales. Cortez & Susanto (2012), Usman & Saleem (2015), Nha et al. (2016), Alipour et al. (2015) which states that the growth of transportation companies in Indonesia has a negative effect on the capital structure or capital structure of debt. The insignificant effect of sales growth on the company's capital structure in this study is because the growth rate for the company is not the only factor that affects the capital structure, there are other factors such as business risk. (Alipour et al.,

2015). This indicates that sales growth is not necessarily followed by an increase in profit so that it does not have an impact on the company's capital structure. This condition explains that companies with high sales tend to make maximum use of assets to carry out company operations rather than to increase their capital structure, besides that transportation companies have high operational risks so they need to apply strict safety. These results are consistent with research conducted by (Harjanti et al., 2007; Putria Yusintha & Erni Suryandari, 2010)

#### **c. Relationship of Firm Size to Capital Structure**

The larger the size of the company in terms of assets, the greater the impact on the company's capital structure. This occurs due to high assets as collateral that can be used to obtain capital from creditors or investors, both long term and short term, because creditors will trust and believe that the company is able to repay loans both short term and long term. The results of this study are in line with the results of research conducted by Detthamrong et al. (2017), Baloch et al. (2015), Khan (2010) where the hypothesis formed by the researcher is that the size of the transportation company has a positive effect on the capital structure.

#### **d. Relationship of Business Risk to Capital Structure**

Based on the results of the analysis that has been carried out by the researcher, it can be explained that the business risk of the company in the sample of this study shows a number of 1.95 which means that the average company in the sample has a safe category of business risk, this is considering the condition of the transportation company having large assets so that if there is a default condition, the company's assets are still able to cover various forms of losses. Considering the business risks of large transportation companies, the required capital structure is also large, both from long-term and short-term debt. From the results of the analysis of this study, it shows that the highest business risk is at PT Air Asia Indonesia Tbk (CMPP) in 2017. Airlines do have the highest risk rate compared to other companies and have a high bankruptcy rate. The results of this study stated that that business risk has a negative and significant effect on the company's capital structure. However, this contradicts the research conducted by Indraajaya & Setiadi (2012), Ahmed et al. (2010), Alipour et al. (2015) states that business risk has no significant positive effect on capital structure.

#### **e. Relationship between Asset Structure and Company Performance**

The performance of the transportation company is closely related to the structure of its assets because investors will see the performance of the company's assets as a benchmark for investors in seeing the market performance of the transportation company. This also shows that currently transportation companies are starting to transfer their operational assets through third parties with cooperation or rental schemes so as to increase their profitability by making efficiency and not procuring or purchasing assets. Thus, it is proven that the asset structure has no effect on the company's performance. This is not in line with the research results Irawati et al. (2019), Sofyaningsih & Hardiningsih (2011) where the asset structure has a positive and significant effect on the company's performance. While this research is in accordance with research conducted by Liargovas & Scandalis (2010); William & Sanjaya (2017) which states that asset tangibility has no effect on Return on Assets (ROA)

#### **f. Relationship between Growth and Company Performance**

Companies with high growth rates will be seen by investors that their marketing and sales strategies are good so that their marketing targets are achieved. Signaling theory states that increased sales can convince investors that the company will provide high returns if it is followed by high operating efficiency (Irawati et al., 2019; Sofyaningsih & Hardiningsih, 2011). The results of this study are not in line with the results of the study Irawati et al. (2019), Sofyaningsih & Hardiningsih (2011) which explains that growth has a positive effect on company performance. Companies with high revenue growth do not necessarily have good performance, there are still fixed expenses that affect it. Companies with large revenues do not necessarily make a profit, so the company's performance does not necessarily increase. This research is in line with research William & Sanjaya (2017), Rahman (2020) who explained that there is no effect of growth on company performance.

The results of this study indicate that growth has a positive and insignificant effect on company performance. This shows that the increase in sales growth does not significantly improve the company's performance. These results support research Hansen and Juniarti (2014) who conducted research on 84 companies on the Indonesia Stock Exchange and showed that sales growth had no significant effect on company performance.

#### **g. The Relationship of Company Size to Company Performance**

Companies with a larger size will be considered by investors in buying shares. Investors believe that the size of the company will provide the opportunity to obtain high profits from its operational activities and be able to provide higher investment returns than small companies, so this will increase the demand for company shares which will eventually cause the share price of a company to also increase. Larger companies have the ability to manage their resources effectively to improve performance (Shindu et al., 2014). When a company has large total assets, management has many preferences for using those assets. Viewed from the management side, the ease of controlling the company will increase the value of the company (Rajgopal & Venkatachalam, 2011).

Based on the results of the analysis in this study indicate that the size of the company has a negative effect on financial performance as measured by ROA. The larger the size of the company, the lower its financial performance. This can be due to the large size of the company has not been supported by good management. Company size cannot be used as a guarantee that a large company has good performance (Isbanah, 2015). This is not in line with research conducted by Serrasqueiro et al. (2008), Lee (2009), Saliha et al. (2011), Akbaş & Karaduman (2012) which explains the results of his research that firm size has a positive effect on profitability. The insignificant effect of company size on company performance shows that company size is not a guarantee that the company will have good performance (Amalia & Fachrudin, 2011) many other factors that affect the company's performance such as asset structure (Irawati et al., 2019; Sofyaningsih & Hardiningsih, 2011). Growth (Irawati et al., 2019; Sofyaningsih & Hardiningsih, 2011). Business risk (Wiagustini & Pertamawati, 2015; Khasanah & Atiningsih, 2019; Ramaiyanti et al., 2018). These results are consistent with research conducted by Huang (2002), Talebria et al. (2010), Amalia & Fachrudin (2011) who also found that there was no effect of firm size on firm performance.



#### **h. Relationship between Business Risk and Company Performance**

Transportation companies are companies that have high business risks, so both from a financial and safety perspective, transportation companies need to mitigate all risks that will hit them. The higher the profit that will be achieved by the company, the higher the business risk that will be faced by the transportation company (Valentina and Ruzikna, 2017). The more the company improves its performance both financially and market performance, the greater the risk it will face, so it is necessary for the company to respond to all anticipatory policies that are risky. In addition, if the use of assets is used continuously without looking at the record and maintenance and capacity, the level of handling business risks will be high even though the company's financial performance increases. This means that if the business risk will increase due to the high profit to be achieved, so that if the company wants to achieve a high rate of return, it will be faced with high business risk.

The results of this study are in line with research Wiagustini & Pertamawati (2015), Khasanah & Atiningsih (2019), Ramaiyanti et al. (2018) which explains that business risk has a positive effect on financial performance.

#### **i. Relationship of Capital Structure to Company Performance**

The capital structure of transportation companies in carrying out their operations and the procurement of company assets uses debt schemes more because the profitability of transportation companies is supported by the procurement of qualified assets, thus explaining that the transportation company's financial capital structure policy has a positive effect on company performance. Because the use of debt is considered to reflect the company's performance because the use of debt is needed to increase assets and increase profitability so that company performance increases both financial performance and market performance. then the results of this study are in line with research conducted by Saleh et al. (2017), Wassie Agmas, (2020), Ahmad et al. (2015), Ahmed & Afza, (2019), Dogan, (2013), Gill et al. (2011), Li et al. (2019), Olanii et al. (2015), Patita (2012) which explains that Capital Structure has a Positive effect on Financial Performance.

#### **j. Relationship between Asset Structure, Growth, Size, Business Risk on Company Performance with Capital Structure as Intervening Variable**

Based on the analysis that the researchers have done, it can be explained that the asset structure of the company's performance with capital structure as an intervening variable has an influence. Investors or creditors are willing to provide loans or invest in companies not only carelessly, but first see how the prospects of the company in the future. The company's prospects in the future can be seen from the company's performance. The higher the company's performance, the higher the interest of external parties to provide their investment, but investors do not see the assets of the transportation company as an important part of making investments, because the assets of the transportation company recede every year, In addition, the high level of risk of asset damage makes investors do not see assets as a factor in increasing company performance. Growth will increase if the operational assets are suitable for use and there is not much waste of repairs which have an impact on increasing sales, increasing assets and finally the company's financial performance is good, so investors are interested in investing their funds in the company.. So that the results of this study provide the results that the asset structure affects the company's performance with capital structure as an intervening variable, this is in line with research (Asih, Inayati & Weny (2019).

In addition, this study shows that the company's growth is not able to provide a signal to external parties, so it does not significantly affect the company's performance. This research supports research conducted by William & Sanjaya (2017), Rahman (2020) which shows that the increase in company growth has no effect on company performance. This hypothesis is not in line with research Hermuningsih (2012), Chen & Chen (2011) which explains that capital structure has an effect and can be an intervening variable between asset structure, growth, company size on company performance. This is because sales growth does not affect the amount of capital structure, sales growth also does not affect the value of the company, so the capital structure is not able to mediate the effect of sales growth on company performance. The results of this study are in line with research Irawati et al. (2019), Reswari et al. (2014) which explains that capital structure is not significantly related in intervening between growth and financial performance.

While the results of the analysis of the relationship between firm size and firm performance with capital structure as an intervening variable indicate that capital structure can mediate the effect of firm size on firm performance. This is because the size of a company makes the company make a debt decision to increase the company's assets in the form of vehicle assets such as ships, trucks, planes and cars, where to fulfill and renew the fleet using a debt or investment scheme. This is in line with research Hermuningsih (2012), Chen & Chen (2011) which explains that capital structure has an effect and can be an intervening variable between firm size and firm performance.

While business risk on company performance has no effect on company performance with capital structure as an intervening variable, it can be explained that transportation companies have 2 main business risks, namely financial risk and security risk, but in this study there was no influence from bankruptcy risk but if there is a security risk, for example the plane crashes due to maintenance and old conditions, it will result in damaged market performance which ultimately causes the company to go bankrupt. This is in line with research Irawati et al., (2019), Wiagustini & Pertamawati (2015), Ramaiyanti et al. (2018) which explains that capital structure is not significantly related in intervening between business risk and financial performance in transportation companies listed on the Indonesia Stock Exchange for the 2015-2019 period.

## V. Conclusion

Based on the results of the analysis and discussion that have been carried out, it can be concluded that the asset structure, growth, company size have a positive effect on the capital structure of the transportation subsector companies listed on the Indonesia Stock Exchange for the 2015-2019 period. Meanwhile, business risk does not have a positive effect on the capital structure of transportation sub-sector companies listed on the Indonesia Stock Exchange for the 2015-2019 period. In addition, in this study the firm size variable is not positively related to firm performance, while the asset structure, growth and business risk variables have a positive effect on firm performance. Furthermore, the capital structure variable has a positive effect on company performance, while the influence of asset structure and company size on company performance with capital structure as an intervening variable explains that capital structure has a significant effect in intervening between asset structure and company size with financial performance in transportation companies listed on the Stock Exchange. Indonesian Securities for the 2015-2019 period. However, the effect of growth and business risk on company performance with capital structure as an intervening variable explains that capital structure has no significant effect

in intervening between company size and financial performance in transportation companies listed on the Indonesia Stock Exchange for the 2015-2019 period.

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