

## The Effect of Sales Growth, Profitability, Leverage and Liquidity on Financial Distress Conditions at Transportation Sub-Sector Companies Listed in Indonesia Stock Exchange (IDX)

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### ABSTRACT

*Financial distress is a condition that shows the stages of decline in the company's financial condition that occurred prior to the bankruptcy or liquidation. The purpose of this research is conducted to examine: (1) The effect of sales growth on financial distress conditions in transportation sub-sector companies listed on the Indonesia Stock Exchange (IDX). (2) The effect of profitability on financial distress conditions in transportation sub-sector companies listed on the Indonesia Stock Exchange (IDX). (3) The effect of leverage on financial distress conditions in transportation sub-sector companies listed on the Indonesia Stock Exchange (IDX). (4) The effect of liquidity on financial distress conditions in transportation sub-sector companies listed on the Indonesia Stock Exchange (IDX). The populations in this research are 45 transportation companies listed on the IDX for the 2013-2017 period. Sampling using purposive sampling method (based on criteria). Companies that meet the criteria to be sampled in this study amounted to 12 companies. The type of data used is secondary data obtained from the Indonesian Stock Exchange (IDX). The data analysis technique used is panel data regression with a common effect model. The results of the analysis of this study state that sales growth and profitability do not have a significant effect on financial distress conditions. While the results of leverage and liquidity show a significant influence on financial distress conditions. The type of data used is secondary data obtained from the Indonesian Stock Exchange (IDX). The data analysis technique used is panel data regression with a common effect model. The results of the analysis of this study state that sales growth and profitability do not have a significant effect on financial distress conditions. While the results of leverage and liquidity show a significant influence on financial distress conditions. The type of data used is secondary data obtained from the Indonesian Stock Exchange (IDX). The data analysis technique used is panel data regression with a common effect model. The results of the analysis of this study state that sales growth and profitability do not have a significant effect on financial distress conditions. While the results of leverage and liquidity show a significant influence on financial distress conditions.*

*Keywords: Sales Growth, Profitability, Leverage, Liquidity and Financial Distress.*

### INTRODUCTION

The bankruptcy of a company can be seen and measured through financial reports, this is very important for companies as a source of information about the company's financial position. Financial reports can be used as a basis for measuring the health of a company through an analysis of existing financial ratios. In

accordance with the mandate of PSAK number 1 (revised 2015), financial statements are a structured presentation of the financial position and financial performance of an entity. Financial statements are very useful for supporting economic decision making on the company's financial condition, this is a concern for many parties, not only company management but also

for other parties who have an interest in the financial statement information.

In Indonesia, there is an institution that regulates and oversees the implementation of the capital market, namely the Capital Market and Financial Institution Supervisory Agency (BAPEPAM-LK) which issues several regulations regarding the form and content of annual reports that must be disclosed by companies going public. Going public means companies has decided to sell its shares to the public and are ready to be assessed by the public openly. The financial statements of companies published on the Indonesia Stock Exchange (IDX) are financial statements that have been audited by a Public Accountant with an unqualified opinion (the financial statements are attached in all material respects, the financial position and financial performance and cash flows of the companies are fairly presented in accordance with the applicable Financial Accounting Standards (SAK) in Indonesia).

The transportation sector is a concern for being the object of research, because transportation companies are part of the infrastructure sector on the Indonesia Stock Exchange (IDX). Infrastructure is one of the determinants of economic development that is as important as other general factors of production such as working capital and labor. The role of transportation is more on fulfilling the basic needs of the community to accommodate the

social and economic activities of the community. The transportation industry is an industry that cannot be separated from state regulations or agreements between countries that guarantee the creation of adequate community mobility in accordance with the public cost index of potential users of the services provided by this industry. However, such as: rising fuel prices, fuel scarcity and transportation accidents as well as business competition with internet-based applications that can create losses. Continuous losses will affect financial conditions so that they have the potential to experience financial difficulties or financial distress. Facts in the field show that many transportation companies generate losses every period. This shows that the condition of the company cannot be said to be good.

This condition has caused several transportation sector companies to experience financial distress, including the bankruptcy of taxi companies operating in Jakarta (PT President Taksi, PT Buana Metropolitan, PT Sri Medali, PT Royal Taksi, PT Panorama Taksi, Cooperative Transkoveri Taxi, and several other taxi companies. ). The bankruptcy of regular taxi companies operating in Jakarta was caused by the presence of an online-based transportation company which incidentally was a foreign company. This is due to the inability of national taxi companies to anticipate global developments, resulting in the bankruptcy of the company.

Table 1

Transportation Sector Companies that experienced a decline in financial performance during 2013-2017

| Company name                     | Profit             |
|----------------------------------|--------------------|
| PT Arpeni Pratama Ocean Line Tbk |                    |
| 2013                             | -1,241,219,713,618 |
| 2014                             | -17,331,177,213    |
| 2015                             | -965,312,398,104   |
| 2016                             | -212,267,832,156   |
| 2017                             | -261,791,680,911   |
| PT Ekasari Lorena Transport Tbk  |                    |
| 2013                             | 3,194,256,650      |
| 2014                             | 1,967,895,987      |
| 2015                             | -1,656,181,564     |
| 2016                             | -28,488,986,010    |
| 2017                             | -38,483,410,461    |
| PT Express Trasindo Utama Tbk    |                    |

|                        |      |                 |
|------------------------|------|-----------------|
|                        | 2013 | 131,783,443     |
|                        | 2014 | 118,285,872     |
|                        | 2015 | 32,322,265      |
|                        | 2016 | -184,740,372    |
|                        | 2017 | -492,102,310    |
| PT Zebra Nusantara Tbk |      |                 |
|                        | 2013 | -4,277,169,141  |
|                        | 2014 | -8,949,028,819  |
|                        | 2015 | -8,351,373,538  |
|                        | 2016 | -12,502,049,235 |
|                        | 2017 | 423,089,657     |

Source : [www.idx.co.id](http://www.idx.co.id)(data processed)

Based on table 1.1, it can be seen that there is some information about transportation companies that experienced a decline in financial performance during the 2013-2017 observation period. Among them, PT Arpeni Pratama Ocean Line Tbk, which is engaged in the transportation sector for domestic and international water freight services, has continued to experience losses for 5 (five) consecutive years even though the recorded losses show a decrease every year. The company's service revenue up to December 31, 2013 decreased by 6.52% compared to the same period in 2012 from IDR 1,177.0 billion to IDR 1,100.2 billion. This decrease was partly due to changes in the charter method from Voyage Charter (VC) in 2012, in 2013 the charter method was Time Charter (TC), sale of unproductive company assets. Another implication is the low BDI value that occurred until mid-2013, where the lowest point affected a significant decline in the value of the ocean freight rate in the international market. Financial expenses and tax expenses in 2013 increased by 11.16% due to an increase in interest costs and loss on foreign exchange.

The decrease in the company's service revenue up to December 31, 2014 decreased by 25.04%, this was due to the declining international coal prices due to restrictions on exports of coal minerals and gas, which affected the decrease in demand for chartered vessels. In terms of the company's performance in the 2016 fiscal year, the company's service revenue decreased by 33.81% from IDR 663.4 billion in 2015 to IDR 439 billion in 2016. In terms of

service expenses, it managed to reduce service expenses due to the company's focus on fuel efficiency .

The low business revenue of PT Ekasari Lorena Transport Tbk (LRNA) is due to the increasingly tight business competition between modes of transportation among fellow AKAP bus operators. Many people have traveled long distances using private vehicles, both two-wheeled and four-wheeled, thus eroding the company's revenue. The company's revenue for the Transjakarta Busway segment decreased in 2015 due to the aging bus fleet so that operating hours decreased which led to a decrease in the number of kilometers traveled. Apart from that, this decrease is partly due to the increasingly non-sterile Transjakarta Busway special lanes.

In 2016 PT Express Trasindo Utama Tbk began to record an 11% impairment in fixed asset value due to depreciation and sale of a number of fixed assets. The express group recorded revenue of IDR 618 billion compared to IDR 970 billion in 2015, express taxis being the largest contributor to the company's total revenue, followed by Eagle taxis and premium taxis. Increased business competition in the provision of transportation services for the public has an impact on the company's financial performance. In the land transportation service provider industry, the Express Group still faces quite tough challenges in 2017. The presence of application-based transportation services still puts pressure on the Express Group's business. Competition is becoming tighter because Express Group competes not only with companies that offer similar services, but also with application-based transportation providers

with all the conveniences offered. Application-based transportation services (online transportation) have changed customer habits in ordering taxis that are connected to the internet network. The impact of the intensity of competition that occurs between conventional taxi companies and online transportation companies has resulted in a decrease in fleet utilization and productivity. Application-based transportation services (online transportation) have changed customer habits in ordering taxis that are connected to the internet network. The impact of the intensity of competition that occurs between conventional taxi companies and online transportation companies has resulted in a decrease in fleet utilization and productivity. Application-based transportation services (online transportation) have changed customer habits in ordering taxis that are connected to the internet network. The impact of the intensity of competition that occurs between conventional taxi companies and online transportation companies has resulted in a decrease in fleet utilization and productivity.

PT Zebra Nusantara Tbk, indicating the company's inability to generate profits from its productive assets to generate profits as much as possible. PT Zebra Nusantara Tbk experienced a sharp decline in operating income to Rp 2.42 billion as of March 2016 compared to the previous year's quarterly operating income of Rp 4.36 billion. The company recorded a loss caused by an increase in operating expenses which rose to IDR 5.80 billion from operating expenses of IDR 5.27 billion the previous year and an operating loss increased to IDR 5.69 billion, an increase from an operating loss of IDR 4.33 billion the previous year. Added to other net expenses which rose to IDR 6.80 billion from other net expenses of IDR 3.70 billion the previous year, the loss before tax increased to IDR 12.50 billion compared to the previous year's pre-tax loss of IDR 8.04 billion. With the company's declining financial performance, this taxi operator in Surabaya plans to convert debt into shares or debt to equity to strengthen the company's financial structure.

Based on the description of the condition of the decline in the financial performance of

companies in the transportation sector above, it indicates that several companies are in the stage of financial distress or prolonged financial difficulties. Financial distress (financial difficulties) can be interpreted as the company's inability to pay its financial obligations when they are due which causes bankruptcy of the company (Darsono and Ashari, 2004). Financial difficulties indicate a severe liquidity problem that cannot be resolved without a major rescheduling of the company's operations.

The first financial performance indicator is sales growth. Sales growth is a presentation of the increase in sales this year compared to the previous year, the higher the sales growth that occurs in a company, the better. This shows that the greater the profit that will be obtained by the company from the sale. Based on previous research, it states that the sales growth ratio does not affect the financial distress of a company (Widarjo and Setiawan, 2009; Darminto and Handayani, 2010; Lisiantara and Febriana, 2018; Rani, 2017). Other research states that sales growth has a significant effect on financial distress (Rismawanti, Sukarmanto and Nurhayati, 2016; Furqon, 2012; Rahayu and Sopian, 2017; Widhiari and Merkusiwati, 2015).

The second financial performance indicator used in this study is the profitability ratio. This ratio is the ratio used for profitability, used to measure how effective the company's management is so that it generates profits. In general, companies experiencing financial distress have negative profitability ratios. This ratio measures a company's ability to generate profits (profitability) at certain levels of sales, assets and shares based on assets owned. A consistent level of profitability will be a benchmark for companies to be able to survive in their business by obtaining adequate returns compared to the risks (Prihadi, 2008:51).

The third financial performance indicator is leverage which is often referred to as the solvency ratio which includes short and long term solvency, in this study it is measured using the debt to total assets ratio which is a measurement ratio that compares total debt to total assets owned by a company. This shows that the greater the company's activities financed

by debt, the greater the possibility of financial distress or financial difficulties. Leverage based on previous research shows the results of an influence on financial distress (Lisiantara and Febriana, 2018; Andre and Taqwa, 2014; Rismawanti, et al. 2017; Hidayat and Meiranto, 2014).

The final financial performance indicator used in this study is the liquidity ratio. Liquidity is the company's ability to pay off short-term obligations. Short-term liabilities or current liabilities are debts that will be paid off within one year. Liquidity is very basic for a company. Liquidity measurements usually relate short-term liabilities to the current assets available to pay them off. Companies experiencing financial distress generally have a liquidity ratio below 1, which means that the company's current assets are unable to cover its current debts. Previous research that measured liquidity using the current ratio showed significantly negative results (Damayanti et al, 2017; Widhiari and Merkusiwati, 2015)

## METHODS

The method of data analysis in this study uses the econometric analysis method, namely panel data regression analysis. In language, econometric means economic measurement. Econometrics is one of the methods and analysis in economic and business research, econometric analysis is an analysis of the facts explained by data at a certain location and time period. In simple terms, it can be understood that econometrics is a combination of economic theory, economic mathematics, and economic statistics which aims to test hypotheses and forecast (forecasting) a current or future trend.

Panel data is a movement over time from individual units so that all uses of panel data can be said to be panel data regression (Gujarati and Porter, 2012). Panel data which is a combination of time series and cross-sectional data. There

are two types of panel data, namely balanced panel data and unbalanced panel data. Panel balanced data is a situation where the cross-section unit has the same number of time-series observations. Meanwhile, unbalanced panel data is a situation where the cross-section unit has an unequal number of time-series observations. In this study using panel balance data, panel data regression estimation analysis in this test used the Eviews 10 program. According to Hsiao (2003) in Imam Ghozali's book (2018:

1. Panel data can provide researchers with a large number of observations, increase the degree of freedom or (degrees of freedom), data has large variability and reduces collinearity between independent or independent variables so as to produce efficient econometric estimates.
2. Panel data can provide more information that cannot be provided only by cross-section or time-series data.
3. Panel data can provide better problem solving in dynamic change inference than cross-section data.
4. By using panel data, a model that is more complicated can be formed but according to needs and developments so that it is widely used in research on economic problems

## RESULTS and DISCUSSION

### 1. Descriptive Statistical Analysis.

Descriptive statistical analysis is generally used to analyze data by describing the data that has been collected without intending to make general conclusions. The results of the descriptive statistical analysis of each variable in this study were obtained based on the processing results using the Eviews 10 program.

**Table 1**  
**Descriptive statistics**

|         | ICR      | SALES     | ROA      | DAR      | CR       |
|---------|----------|-----------|----------|----------|----------|
| Means   | -0.03901 | -0.005654 | 0.014312 | 0.974024 | 1.17263  |
| Median  | 0.00629  | 0.016175  | 0.040827 | 0.571816 | 0.847122 |
| Maximum | 7.925373 | 0.521442  | 0.445995 | 5.771425 | 6.038201 |



|              |           |           |            |          |          |
|--------------|-----------|-----------|------------|----------|----------|
| Minimum      | -9.302421 | -0.507104 | -1.194944  | 0.074971 | 0.034957 |
| std. Dev.    | 0.464647  | 0.226376  | 0.226635   | 1.256333 | 1.158243 |
| Skewness     | -0.544688 | 0.048835  | -2,906,647 | 2.550863 | 2.015855 |
| kurtosis     | 3.611761  | 2.503742  | 1.577383   | 8.757371 | 7.751338 |
| Jarque-Bera  | 3.902484  | 0.639529  | 4.924131   | 1.479373 | 9.707474 |
| probability  | 0.142097  | 0.72632   | 0          | 0        | 0        |
| sum          | -1.651819 | -0.339269 | 0.858741   | 5.844146 | 7.035783 |
| Sum Sq. Dev. | 1.27379   | 3.023525  | 3.03045    | 9.312394 | 7.915012 |
| Observations | 60        | 60        | 60         | 60       | 60       |

Source : Output Eviews 10

Based on the table above, it can be seen that *meanor* the average of the independent variable X1 for the transportation sector companies that are the sample in the study is -0.005654 with a standard deviation value of 0.226376. For a maximum value of X1 owned by PT Zebra Nusantara Tbk in 2017 of 0.521442 in 2015 and for a minimum value of -0.507104 owned by PT Express Trasindo Utama Tbk in 2017.

For *meanor* the average independent variable X2 proxied by (ROA) for the transportation sector companies that are the sample in this study is 0.014312 with a standard deviation of 0.226635. X2 maximum value of 0.445995 owned by PT Zebra Nusantara Tbk in 2014 and for a minimum value of -1.194944 owned by PT Zebra Nusantara Tbk in 2016.

For *meanor* the average independent variable X3 proxied by (DAR) for the transportation sector companies sampled in the study is 0.974024 with a standard deviation of 1.256333. X3 maximum value of 5.771425 owned by PT Arpeni Pratama Ocean Line Tbk in 2017 and for a minimum value of 0.074971 owned by PT Pelayaran Nelly Dwi Putri Tbk in 2017.

For *meanor* the average independent variable X4 proxied by (CR) for the transportation sector companies that are the sample in this study is -0.039010. The maximum value of 7.925373 was owned by PT Cardig Aero Services Tbk in 2017 and for a minimum value of -9.302421 owned by PT Ekasari Lorena Transport Tbk in 2017.

Whereas *meanor* the average for the dependent variable Y which in the study is proxied by (ICR) for transportation sector

companies that were sampled in the study during the 2013-2017 period was -0.036530 with a standard deviation of 0.458149. The maximum ICR value owned by PT Adi Sarana Armada Tbk in 2013 was 0.954560 and for the minimum value -1.233866 owned by PT Mitra International Resources Tbk in 2015.

## 2. Panel Data Regression Model Selection

The model used in this study is panel data regression, to test model specifications and the suitability of theories with reality. Panel data regression has a combination of characteristics, namely data consisting of several objects and time. In terms of data type, panel data is a combination of time series (*time series*) and latitude series data (cross-section). Meanwhile, seen from the purpose of data analysis, panel data can be useful to see differences in characteristics between each individual in several periods of the research object. This kind of data has advantages, especially because it is robust against several types of violations, namely heteroscedasticity and normality. In this section, the selection of the best panel data regression model will be carried out, the selection of the model will depend on the assumptions used by the researcher and the fulfillment of the correct statistical data processing requirements so that later the results can be statistically accounted for.

## 3. Data Model Selection Estimation Results

### Chow test

The chow test was used to choose between models *common effect model* or a more appropriate fixed effect model used in the panel data regression process in research. If the probability for the cross-section is greater than ( $\alpha$

= 5%) then the H0 model is accepted, so the common effect model is appropriate. The results of the chow test can be seen in table 4.7 below.

**Table 4.7**  
**Chow Test Results**

Redundant Fixed Effects Tests  
 Equation: FEM  
 Test cross-section fixed effects

| Effect Test               | Statistics | df      | Prob.  |
|---------------------------|------------|---------|--------|
| Cross-section F           | 1.680636   | (11.44) | 0.0199 |
| Chi-square cross-sections | 21.04613   | 11      | 0.0329 |

Source : Eviews output10

From the results of the chow test in table 4.7 shows that the probability value *cross-section* is 0.0199 or less than ( $\alpha = 5\%$ ) then, H0 is rejected. Thus Ha is accepted so that the right model to use in this panel data test is the fixed effect model.

**Hausman test**

After the Chow test was carried out and obtained the result that the fixed effect model was used, then the panel data model must be compared again by conducting the Hausman test. The Hausman test is used to determine whether the fixed effect model or random effect model is the most appropriate for use in research. The results of the Hausman test can be seen in table 4.8 below.

**Table 4.8**  
**Hausman Test Results**

Correlated Random Effects - Hausman Test  
 Equation: REM  
 Test cross-section random effects

| Test Summary          | Chi-Sq. Statistics | Chi-Sq. df | Prob.  |
|-----------------------|--------------------|------------|--------|
| Random cross-sections | 4.056126           | 4          | 0.3985 |

Source : Output Eviews 10

From the test results with the Hausman test above, it can be seen that the random cross-section probability value, which is equal to 0.3985, is more  $\geq$  than ( $\alpha = 5\%$ ), meaning that H0 is accepted. Thus Ha is rejected, so according to the Hausman test the right model to use for panel data testing is the random effect model.

**Lagrange Multiplier Test (LM)**

Test Lagrange multiplier is not used if the Chow test and Hausman test show that the most appropriate model is the fixed effect model. The multiplier lagrange test is used when the Chow test shows that the model used is the common effect, while the Hausman test shows that the most appropriate model is the random effect. Then a lagrange multiplier test is needed as the final step to determine the most appropriate common effect or random effect model. After obtaining the Lagrange Multiplier (LM) value, calculate the P value with a value less than or equal to ( $\alpha = 5\%$ ) so that the Lagrange Multiplier test shows that it accepts H1, which means that the best estimation method is the random effect. If the P Value is greater than ( $\alpha = 5\%$ ) then the best estimation method is the common effect.

**Table 4.9**  
**Lagrange Multiplier Test Results (LM)**

| Null (no rand. effect) Alternatives | Cross-section One-sided | period One-sided | Both     |
|-------------------------------------|-------------------------|------------------|----------|
| Breusch-Pagan                       | 0.961153                | 2.158688         | 3.119841 |



|         |          |           |          |
|---------|----------|-----------|----------|
|         | -0.3269  | -0.1418   | -0.0773  |
| Honda   | 0.980384 | -1.469247 | -0.34568 |
|         | -0.1634  | -0.9291   | -0.6352  |
| King-Wu | 0.980384 | -1.469247 | -0.75192 |
|         | -0.1634  | -0.9291   | -0.774   |
| GM      | --       | --        | 0.961153 |
|         | --       | --        | -0.3181  |
| Source  | :        | Output    | Eviews   |
|         |          |           | 10       |

From the test results with the lagrange multiplier (LM) test above, it can be seen that the calculated LM value at Breusch-Pagan is 0.32696 P The value is greater than ( $\alpha = 5\%$ ), meaning that the calculated LM value indicates that the best estimation model uses the common effect model .

Based on the test above, the fixed effect model has been selected 1 (one) time, namely in the chow test. The random effect model method was selected 1 (one) time in the hausman test, whereas in the multiplier lagrange test which is the final stage to determine a better model in interpreting the panel data regression that was carried out shows that the common effect model is the best model that can be used in data regression panel in this study.

**Panel Data Regression Analysis Results**

**Table 4.10**  
**Panel Data Regression (with common effect model)**

| Variables           | coefficient | std. Error            | t-Statistics | Prob.    |
|---------------------|-------------|-----------------------|--------------|----------|
| C                   | 0.36377     | 0.101411              | 3.587065     | 0.0007   |
| SALES               | 0.043438    | 0.267362              | 0.162467     | 0.8715   |
| ROA                 | -0.166398   | 0.270181              | -0.61588     | 0.5405   |
| DAR                 | -0.186395   | 0.047056              | -3.96109     | 0.0002   |
| CR                  | -0.176629   | 0.050357              | -3.50755     | 0.0009   |
| R-squared           | 0.282736    | Mean dependent var    |              | -0.02753 |
| Adjusted R-squared  | 0.230571    | SD dependent var      |              | 0.46465  |
| SE of regression    | 0.407575    | Akaike info criterion |              | 1.12247  |
| Sum squared residue | 9.136443    | Schwarz criterion     |              | 1,297    |
| Likelihood logs     | -28.67411   | Hannan-Quinn criter.  |              | 1.19074  |
| F-statistics        | 5.420064    | Durbin-Watson stat    |              | 1.90138  |
| Prob(F-statistic)   | 0.000943    |                       |              |          |

Source : Output Eviews 10

Based on the results of the regression output above, the equation for panel data regression in this study can be obtained as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \epsilon_{it}$$

$$\text{Financial distress} = 0.363770 + 0.043438 X_1 - 0.166398 X_2 - 0.186395 X_3 - 0.176629 X_4 + \epsilon$$

Information :  
 $\alpha$  = Constant or Intercept (0.363770)

- $\beta_1$  = Regression Coefficient or Slope (0.043438)
- $\beta_2$  = Regression Coefficient or Slope (-0.166398)
- $\beta_3$  = Regression Coefficient or Slope (-0.186395)
- $\beta_4$  = Regression Coefficient or Slope (-0.176629)

From the regression equation, it can be concluded that the coefficient value of the independent variable has a significant effect, namely the significant value is less than ( $\alpha =$





5%). The following is an explanation of the panel data regression above:

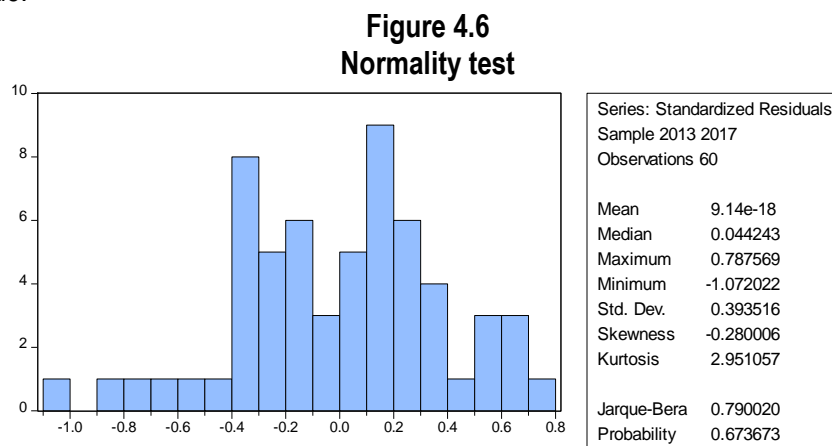
- a. The constant is 0.363770, that is, if the variable X1 sales growth, X2 Profitability is proxied to return on assets, X3 Leverage is proxied to the debt to total asset ratio and X4 Liquidity is proxied to the current ratio is zero, then the magnitude of financial distress is 0.363770.
- b. The regression coefficient of the X1 variable is 0.043438, meaning that every increase in X1 by 1 unit will increase Y (financial distress) by 0.043438 units assuming the other independent variables have a fixed value.
- c. The regression coefficient of the X2 variable is -0.166398, indicating that for every 1 unit increase in X2, it will reduce Y (financial distress) by -0.166398 units assuming that the other independent variables have a fixed value.
- d. The regression coefficient of the X3 variable is -0.186395, indicating that for every 1 unit increase in X3, it will reduce Y (financial distress) by -0.186395 units assuming that the other independent variables have a fixed value.

- e. The regression coefficient of the X4 variable is -0.176629, indicating that every increase of 1 unit of X4 will decrease Y (financial distress) by -0.176629 units assuming that the other independent variables have a fixed value.

### Classical Assumption Test Results

Based on the description above, if the model chosen is a common effect model or a fixed effect model, then the classical assumption test that must be carried out only includes the heteroscedasticity test and the multicollinearity test. Meanwhile, if the chosen one is a random effect model, then there is no need to test the classical assumptions. Even so, it is better to test the classical assumptions in the form of normality, autocorrelation, heteroscedasticity and multicollinearity tests to be carried out in whatever model is chosen. The results of the classical assumption test in this study are as follows:

### Normality test



Source : Output Eviews 10

Based on the table above that the residuals are normally distributed, it can be seen from the comparison of the calculated Jarque-Bera (JB) probability values showing that the probability value of JB is 0.673673 greater than the significance ( $\alpha=5\%$ ).

### Multicollinearity Test

Multicollinearity is a condition where there is a linear relationship between the independent (free) variables. Because it involves several independent variables, multicollinearity will not occur in the simple regression equation (which consists of one dependent variable and one independent variable). With the provisions of decision making that multicollinearity does not

occur, if the correlation value between all the variables tested  $< 0.9$  (Sarwono, 2016:161).

**Table 4.11**  
**Multicollinearity Test**  
**Correlation**

|       | SALES   | ROA     | DAR     | CR      |
|-------|---------|---------|---------|---------|
| SALES | 1.00000 | 0.44424 | -       | -       |
| ROA   | 0.44424 | 1.00000 | -       | -       |
| DAR   | -       | -       | 1.00000 | -       |
| CR    | -       | -       | -       | 1.00000 |

Source : Output Eviews 10

Based on testing the correlation coefficient value above, each variable has a coefficient value  $< 0.9$ . So it can be concluded that the model does not experience multicollinearity problems.

#### Heteroscedasticity Test

The model is said to have a heteroscedasticity problem if the disturbance variable has variables that are not constant. Consequences of having problems heteroscedasticity is that the estimator we get will have a non-minimum variance. In this study, the White Heteroskedasticity Test was carried out to detect heteroscedasticity problems.

**Table 4.12**  
**Heteroscedasticity Test Results**

| Heteroskedasticity Test: White |         |                      |       |
|--------------------------------|---------|----------------------|-------|
| F-statistics                   | 1.70052 | Prob. F(14,45)       | 0.09  |
| Obs*R-squared                  | 20.76   | Prob. Chi-Square(14) | 0.108 |
| Scaled explained SS            | 17.0173 | Prob. Chi-Square(14) | 0.255 |

Based on the white heteroscedasticity test with an Obs\*R-square p-value of 0.1079 greater

**Table 4.14**  
**Hypothesis Test Results**  
*(common effect model method)*

| Variables | coefficient | std. Error | t-Statistics | Prob.  |
|-----------|-------------|------------|--------------|--------|
| C         | 0.36377     | 0.101411   | 3.587065     | 0.0007 |
| SALES     | 0.043438    | 0.267362   | 0.162467     | 0.8715 |

than the significant level ( $\alpha = 5\%$ ) which means it is not significant, then accept  $H_0$  or reject  $H_a$  which means that in this study there is no heteroscedasticity problem or the data is homogeneous.

#### Autocorrelation Test

The autocorrelation test aims to see whether or not there is a relationship between the residuals of one observation and the residuals of other observations. Autocorrelation can be seen using the Breusch-Godfrey test. Assessment is seen from the probability value. If the probability value is less than ( $\alpha = 5\%$ ), it can be concluded that there is an autocorrelation problem in the research model. The following results of the autocorrelation test can be seen in table 4.13.

**Table 4.13**  
**Autocorrelation Breusch-Godfrey test**

| Breusch-Godfrey Serial Correlation LM Test: |         |                     |       |
|---|---------|---------------------|-------|
| F-statistics                                | 0.75945 | Prob. F(2,53)       | 0.473 |
| Obs*R-squared                               | 1.6716  | Prob. Chi-Square(2) | 0.434 |

Source : Output Eviews 10

Based on the autocorrelation results using the Breusch-Godfrey test, the chi-square probability value is 0.4335 at ( $\alpha=5\%$ ), the chi-square value is greater than ( $\alpha=5\%$ ), so it can be concluded that there is no autocorrelation problem.

#### Hypothesis test

Hypothesis testing is useful for testing the significance of the regression coefficients obtained, testing the errors or truth of the hypotheses that have been proposed. Based on the tests that have been carried out, it shows that the model *common effect* pass the test to interpret the regression model.

|                     |           |                       |          |          |
|---------------------|-----------|-----------------------|----------|----------|
| ROA                 | -0.166398 | 0.270181              | -0.61588 | 0.5405   |
| DAR                 | -0.186395 | 0.047056              | -3.96109 | 0.0002   |
| CR                  | -0.176629 | 0.050357              | -3.50755 | 0.0009   |
| R-squared           | 0.282736  | Mean dependent var    |          | -0.02753 |
| Adjusted R-squared  | 0.230571  | SD dependent var      |          | 0.46465  |
| SE of regression    | 0.407575  | Akaike info criterion |          | 1.12247  |
| Sum squared residue | 9.136443  | Schwarz criterion     |          | 1,297    |
| Likelihood logs     | -28.67411 | Hannan-Quinn criter.  |          | 1.19074  |
| F-statistics        | 5.420064  | Durbin-Watson stat    |          | 1.90138  |
| Prob(F-statistic)   | 0.000943  |                       |          |          |

Source : Output Eviews 10

### t test (partial test/significance of individual parameters)

Based on the output of the common effect model above, it can be seen the results of testing the hypotheses that have been formulated individually. To find out whether the independent variable has a significant effect on the dependent variable in this study, it is done by looking at the significance value or (probability) of each independent variable.

#### a. First hypothesis

Based on table 4.14, the results are obtained in the form of a probability value of 0.8715 for sales growth which is greater than the significance level ( $\alpha = 5\%$ ), meaning that accept  $H_0$  or this variable does not have a significant effect on financial distress. Based on the test results, the first hypothesis in this study was rejected.

#### b. second hypothesis

Based on table 4.14, the results are obtained in the form of a probability value of 0.5405 for profitability proxied by ROA which is greater than the significance level ( $\alpha = 5\%$ ), meaning that accept  $H_0$  or this variable does not have a significant effect on financial distress. Based on the test results, the second hypothesis in this study was rejected.

#### c. third hypothesis

Based on table 4.14, the results are obtained in the form of a probability value of 0.0002 for leverage proxied by DAR which

is smaller than the significance level ( $\alpha = 5\%$ ), meaning that  $H_0$  is rejected or this variable has a significant influence on financial distress. Based on the test results, the third hypothesis in this study was accepted.

#### d. second hypothesis

Based on table 4.14, the results are obtained in the form of a probability value of 0.0009 for liquidity proxied by CR which is smaller than the significance level ( $\alpha = 5\%$ ), meaning that  $H_0$  is rejected or this variable has a significant influence on financial distress. Based on the test results, the second hypothesis in this study was accepted.

### Overall regression coefficient F test (Simultaneous Significance)

The model feasibility test is reflected in the results of the probability test (F-statistics). Based on table 4.14, it can be seen that the probability value (F-statistics) is 0.000943 which is smaller than the significance level ( $\alpha=5\%$ ) meaning that in the test we accept  $H_a$  then we can conclude that the independent or independent variables jointly affect the dependent or dependent variable.

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

The test is intended to determine the level of accuracy in the regression analysis. From the regression results, it is obtained that the coefficient of determination R<sup>2</sup> in the form of Adjusted R-squared value of 0.23057. This shows that the proportion of the influence of all related variables in this study is only able to

explain financial distress by 23%, while the remaining 77% is explained by other variables not examined in this research model.

### Model Interpretation

In panel data regression, after selecting the model, testing the classical assumptions and feasibility of the model, the last step is to interpret the model formed. The classical assumption test has been fulfilled in the regression estimation and the statistical test results have provided statistically significant results. The following is the interpretation of the panel data regression results with the model *common effect*.

### Effect of sales growth on financial distress conditions

Sales growth reflects the investment success of the past period and can be used as a prediction of future growth which will later be used as a way to anticipate *financial distress* (financial difficulties) in a company. Sales growth is an indicator of demand and company competitiveness in an industry. Sales growth is an increase in the number of sales from year to year.

The regression results show that the probability value is 0.8715 for sales growth which is greater than the significance level ( $\alpha = 5\%$ ), meaning that this variable does not have a significant effect on financial distress in the transportation sector companies that are the object of this study. This study cannot prove the linkage or direct influence of sales growth on financial distress. This could be because the company has relatively stable sales and it is safer to obtain loans so that it can bear the burden if unstable sales are found.

Viewed from the accounting side, this can be due to the fact that in the transportation sector companies that have experienced an increase in sales are also followed by increasing costs that are burdened in their operating activities in order to increase sales results. The higher the growth in sales, it reflects the company's income which also increases so that the tax burden also increases. The results of this study are in line with research conducted by Lisiantara and Febriana (2018)

### Effect of Profitability on financial distress conditions

Profitability provides an overview of a company's ability to use its assets to gain profit. In the long term, the company must generate enough profit from its business so that it is able to pay its obligations. This ability depends on the effectiveness and efficiency of its operations in the use of company assets that are able to provide profits for the company. The regression results show that the probability value is 0.5405 for proximate profitability *return on assets* which is greater than the significance level ( $\alpha = 5\%$ ), meaning that accept  $H_0$  or the variable is not proven to have a significant effect on financial distress.

This indicates that the profitability of transportation companies does not show negative results. Because the company is still able to show the effectiveness of using company assets to generate net income. The decline in profits experienced by several transportation companies reported in 2013-2017 does not indicate that the company will experience financial distress. The results of this study are not in line with the hypotheses that have been proposed and are not in line with research (Andre and Taqwa, 2014; Lisiantara and Febriana, 2018) which states that profitability as measured using return on assets has a significant effect on financial distress.

### The effect of leverage on financial distress conditions

*leverage* arises from the activity of using company funds originating from third parties in the form of debt with the intention of increasing income (return) and also profits for shareholders or company owners. The effect of using leverage is highly dependent on economic conditions. In good economic conditions, the use of greater debt will increase profits for the company if managed properly. However, if the company continues to increase debt, it will result in an increase in interest rates, because the risks faced by creditors also increase. Meanwhile, in bad economic conditions, the use of greater debt, in general, interest rates on loans are very high, while the company's sales and profits

decline. This results in the company's ability to generate profits by using less debt than the interest rate that must be paid by the company. Based on the theory, the higher the leverage level, the greater the potential for a company to experience financial difficulties. The use of leverage can pose a risk burden for the company, because in addition to the company having to pay its principal obligations, the company also has to pay the interest charged on the loan.

The regression results show that the probability value is 0.0002 for *leverage* which is proxied by debt to total assets which is smaller than the significance level ( $\alpha = 5\%$ ), meaning that H0 is rejected where the variable has a significant influence so that the third hypothesis on financial distress in transportation sector companies is accepted. This can be caused because the company has lower total asset availability compared to its total debt, so the company is unable to pay debts using the company's total assets. This is in line with the results of research put forward by (Lisiantara and Febriana, 2018) empirical studies on manufacturing companies. But this is not in line with the results of research put forward by (Reta Emingtyas, 2017) who also examined manufacturing companies.

### Effect of Liquidity on financial distress conditions

Liquidity is used to measure a company's ability to pay off the company's short-term obligations. Liquidity can also describe a company in a liquid state. This study uses CR as an indicator in measurement, this is because the difference in current assets over current liabilities is a guarantee against possible losses that arise by converting non-cash current assets into cash (securities) based on theory, the higher the value of current assets in covering the company's current liabilities, it is the better for the company. The lower the value of current assets in covering short-term debt, the company can experience conditions *financial distress*.

The results of the regression analysis are in the form of a probability value of 0.0009 for liquidity proxied by CR which is less than the

significance level ( $\alpha=5\%$ ), meaning that H0 is rejected or the variable has a significant effect on financial distress in the transportation sector companies being studied. This can indicate that the greater the influence on financial distress conditions and can be caused because the company has small current assets used to pay the company's short-term debts before maturity. Lack of efficiency in working capital so that the potential is not optimal and the current debt is large enough so that the company's current assets are not sufficient to pay off the company's obligations when they fall due.

The results of this study are in line with research conducted by (Rita Emingtyas, 2017) which shows that liquidity affects the condition *financial distress* or financial difficulties. So that the greater the company's activities are financed by debt, the greater the possibility of financial distress. However, it is different from the results of research conducted by (Widarjo and Setiawan, 2009) which states that liquidity does not have a significant effect on financial distress..

## CONCLUSION

Based on the results of the research described in the previous chapter concerning the effect of several financial ratios on the financial distress of transportation sector companies listed on the Indonesia Stock Exchange (IDX), it can be concluded that:

1. There is no significant influence between the company's sales growth on financial distress.
2. There is no significant influence between company profitability and financial distress.
3. *leverage* has a significant effect on financial distress conditions in transportation sector companies for the 2013-2017 period tend to use more third party funding.
4. Liquidity has a significant effect on financial distress conditions in transportation sector companies listed on the Indonesia Stock Exchange for the 2013-2017 period. This is because the

company has small current assets that are used to pay off the company's short-term debt before maturity.

5. Simultaneously or together the variables of sales growth, profitability, leverage and liquidity have a significant effect on financial distress with a strength of 23% so that there is a greater influence than other variables not examined in this research model.

## REFERENCES

- Andre, Orina dan Salma Taqwa. 2014. Pengaruh Profitabilitas, Likuiditas, dan Leverage Dalam Memprediksi Financial Distress. *Jurnal WRA*. Vol. 2. No.1. Hlm. 293-312.
- Baridwan, Zaki. 2000. *Intermediate Accounting*. Terbitan ketujuh. Yogyakarta : BPFPE – Yogyakarta.
- Darsono, Ashari. 2004. *Pedoman Praktis Dalam Memahami Laporan Keuangan*. Semarang : Penerbit Andi.
- Deanta. 2009. *Excel Analisis Laporan Keuangan dan Prediksi Kebangkrutan Perusahaan*. Edisi Pertama. Yogyakarta : Gava Media.
- Doddy Ariefianto, Moch. 2012. *Ekonometrika Esensi Dan Aplikasi Dengan Menggunakan Eviews*. Jakarta : Erlangga.
- Eminingtyas, Reta. 2017. Pengaruh Ukuran Perusahaan, Likuiditas, Leverage, Sales Growth, dan Operating Capacity Terhadap Financial Distress Pada Perusahaan Manufaktur (Terdaftar Di BEI). *Artikel Ilmiah*.
- Fachrudin, Khaira. 2008. *Kesulitan Keuangan Perusahaan dan Personal*. Terbitan Pertama. Medan : USU Press.
- Fahmi, Irham. 2015. *Analisis Laporan Keuangan*. Bandung : Alfabeta.
- G. Anggana Lisiantara dan Lilik Febriana. 2018. Likuiditas, Leverage, Operating capacity, Profitabilitas, Sales growth sebagai preditor financial distress (studi empiris pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia tahun 2013-2016). ISBN : 987-979-3649-99-3.
- Ghozali, Imam. 2018. *Analisis Multivariat dan Ekonometrika Teori dan Aplikasi dengan Eviews 10*. Edisi 2. Semarang : Universitas Diponegoro.
- Gujarati, Damodar N dan Porter, Dawn C. 2013. *Dasar-dasar Ekonometrika*. Edisi 5. Buku 1. Jakarta : Salemba Empat.
- Harahap, Sofyan Syafri. 2015. *Teori Akuntansi*. Edisi Revisi 11 Cetakan ke -14. Jakarta : Rajawali Pers.
- Hidayat, Muh.Arif dan Wahyu Meiranto. 2014. *Prediksi Financial Distress Pada Perusahaan Manufaktur di Indonesia*. *Jurnal of Accounting*. ISSN : 2337-3806. Vol. 3. No.3. Hlm. 1-11.
- Ikatan Akuntan Indonesia. 2015. *Pernyataan Standar Akuntansi Keuangan No.1 Penyajian Laporan Keuangan (PSAK)*. Jakarta : Dewan Standar Ikatan Akuntan Indonesia (DSAK IAI) dan Dewan Standar Syariah Ikatan Akuntan Indonesia (DSAS IAI).
- Ikatan Akuntan Publik Indonesia (IAPI). 2011. *Standar Profesional Akuntan Publik (SPAP)*. Salemba Empat.
- Kasmir. 2016. *Analisis Laporan Keuangan*. Edisi ke-1 Cetakan ke-9. Jakarta : Rajawali Pers.
- Lesmana, Rico dan Rudy Surjanto. 2004. *Financial Performance Analyzing*. Jakarta : PT Elex Media Komputindo.
- Munawir, S. 2014. *Analisa Laporan Keuangan*. Cetakan ke – 17. Yogyakarta : Liberty.
- Permana, Randy Kurnia. et al. 2017. *Prediksi Financial Distress Pada Perusahaan Manufaktur di Bursa Efek Indonesia*. *Esensi : Jurnal Bisnis dan Manajemen*. Vol 7 (2). P-ISSN : 2087-2038; E-ISSN : 2461-1182. Hlm. 149-166.
- Prihadi, Toto. 2008. *Deteksi Cepat Kondisi Keuangan 7 Analisis Rasio Keuangan*. Cetakan I. Jakarta : PPM.
- Renty Rismawanti, et al. 2017. Pengaruh Likuiditas, Sales Growth dan Leverage dalam Memprediksi Kondisi Financial Distress. *Jurnal of Accounting*. ISSN : 2460-6561.
- Sarwono, Jonathan. 2016. *Prosedur-prosedur Analisis Populer (Aplikasi Riset Skripsi dan Tesis) dengan Eviews*. Cetakan I. Bandung : Gava Media.
- Subramanyam, K.R dan John J. Wild. 2010. *Analisis Laporan Keuangan*. Buku satu. Edisi 10. Jakarta : Salemba Empat.
- Sugiyono, 2012. *Metode Penelitian Bisnis*. Cetakan ke – 16. Bandung : Alfabeta.
- S. Patricia Febriana D. 2010. *Penyebab, Dampak dan Prediksi dari Financial Distress serta solusi untuk mengatasi Financial Distress*. *Jurnal Akuntansi Kontemporer*. Vol. 2. No.2. Hlm. 191-205.