

# Analysis Of The Influence Of Firm Size, Liquidity, And Leverage On Financial Distress

(Empirical Study on Transportation Sector Companies Listed on the Indonesia Stock Exchange in 2018-2021)

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**Abstract-** Financial distress is a condition that shows the stage of decline in the company's financial condition that occurred before bankruptcy or liquidation (Plat and Plat, 2002, in Almilia, 2006). Thus, the purpose of this study is to analyze and seek empirical evidence regarding the effect of firm size, liquidity, and leverage on financial distress. The population used in this study is the transportation sub-sector companies listed on the Indonesia Stock Exchange during the 2018-2021 period. Samples were taken using purposive sampling with the final result obtained 42 samples that are ready to be processed by multiple linear regression analysis using SPSS 26 software. The results of this study indicate that leverage has an effect on financial distress in transportation sub-sector companies listed on the Indonesia Stock Exchange during the 2018-2021 period. Meanwhile, company size and liquidity have no effect on financial distress in transportation sub-sector companies listed on the Indonesia Stock Exchange during the 2018-2021 period.

**Index Terms-** financial distress, firm size, leverage, liquidity, transportation

## I. INTRODUCTION

Economic conditions or developments are always changing which can affect a company's performance. One company with another company carries out very tight business competition, causing companies to compete to excel or be able to compete. Competition between companies is certainly a cost incurred by the company. If the company is not able to compete or lose in business competition, the company will experience losses and ultimately result in the company experiencing bankruptcy or financial distress.

Financial distress is a condition that shows the stage of decline in the company's financial condition that occurred before the occurrence of bankruptcy or liquidation (Plat and Plat, 2002, in Almilia, 2006). Bankruptcy is also often called company liquidation or company closure or insolvency. Bankruptcy as a failure is defined as financial failure and economic failure that occurs in the company. (Ramadhani and Lukviarman, 2009).

Financial distress can also be defined as the company's inability to pay financial obligations that have matured. (Beaver et al., 2011).

Damodaran (1997) says that there are several factors that cause financial distress in a company, namely cash flow difficulties, the amount of debt, and losses in the company's operational activities for several years. Financial distress can be experienced by all companies, especially if the economic conditions in the country where the company operates experience an economic crisis. To overcome or minimize the occurrence of bankruptcy in the company, the management must supervise the company's financial condition by using financial statement analysis (Ramadhani and Lukviam.an, 2009).

A transportation service company is a business field that provides transportation services or the transfer of goods or people with certain distances and modes used. The transportation sector is one of the sectors listed on the Indonesia Stock Exchange. In Indonesia, transportation is very important and plays a role in people's lives as a supporter of community activities because Indonesia has a fairly large area and has an effect on the Indonesian economy. However, due to several factors, one of which is the COVID-19 pandemic, many transportation sector companies have gone bankrupt. In this study, researchers focus more on three factors that influence financial distress, namely firm size, liquidity, and leverage.

The first factor that affects financial distress is the size of the company. Company size is a scale which can be classified as the size of the company in various ways, including the total assets of the company, log size, stock market value, and others. The size of the company can be measured by the total assets / large assets of the company by using the calculation of the logarithmic value of total assets (Hartono, 2015: 254). Aspects of company size are very influential on financial distress because from this it can be seen whether the company can survive in the face of losses.

The second factor that affects financial distress is liquidity. The liquidity ratio can be used to predict the occurrence of financial distress. The liquidity ratio is the ability of a company to meet its short-term obligations in a timely manner (Irham, 2014:121). Liquidity shows the ability of an entity to cover the company's current liabilities by utilizing its current assets. A company can be said to be liquid if the company can settle its short-term obligations

when it matures, but if the company cannot settle its short-term obligations when it matures, then the company is said to be illiquid or illiquid.

Companies that have a high level of liquidity indicate that the company has a number of current assets that are ready to pay off short-term debt so that the company can avoid financial distress conditions (Carolina et al., 2017). According to Kasmir (2017: 130), the liquidity ratio is a ratio used to measure how liquid a company is. By comparing the components on the balance sheet, namely total current assets with total current liabilities (short-term debt). The assessment can be carried out for several periods so that it involves the development of company liquidity from time to time.

The third factor that affects financial distress is leverage. Leverage is the use of debt or loan funds that are used to increase returns or profits. The leverage ratio measures how much the company is financed with debt. A company is said to have a high level of leverage, if the number of assets owned by the company is less than the total assets of its creditors. The greater the leverage ratio, the higher the risk of the company defaulting to creditors. The use of debt that is too high can harm the company because it will fall into the category of extreme leverage, namely the company is in a high level of debt and it is difficult to release the debt burden (Irham, 2015: 127).

## II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### 2.1 Literature Review

#### a. Financial Statements

Financial statements describe the financial condition and results of operations of a company at a certain time or period of time. Financial reports are a medium that can be used to assess the company's achievements and economic conditions (Harahap, 2011). Financial statements can also be defined as reports that show the company's current financial condition or within a certain period, what is meant by the current condition of the company is the company's current condition, namely the company's financial condition at a certain time (for the balance sheet) and a certain period (for the income statement). ) (Kasmir, 2014).

#### b. Company Size

Company size is a scale used to indicate how much assets a company owns to be used to finance its operational activities. The larger the size of the company, the greater the number of assets owned by the company.

#### c. Liquidity

Liquidity or often called the working capital ratio is a ratio used to measure how liquid a company is (Hery, 2015). In addition, liquidity can also be defined as a ratio that describes or a ratio that can be used to measure the company's ability to meet its short-term obligations that have matured.

#### d. Leverage

Leverage is a ratio used to measure how much debt is used in company spending (Sudana, 2015). In addition, leverage can also be interpreted as a ratio used to measure how far or how much the company has been funded or financed by debt. Leverage ratio

measures the extent to which the company finances its business by comparing its own funds (shareholder equity) that have been deposited with the amount of loans from creditors (creditors) (Raharjaputra, 2009).

#### e. Financial Distress

Financial distress is a condition of the company's inability to pay its financial obligations at maturity which causes the company's bankruptcy. The condition of the company's inability to pay its obligations can occur because the company is not able to manage and maintain stable financial performance, causing the company to experience operational losses and net losses for the current year (Darsono & Ashari, 2005).

### 2.2 Hypothesis Development

#### a. The Effect of Firm Size on Financial Distress

Company size is a scale that determines the size of a company that shows how big the total assets and capital owned by a company can be used to finance its operational activities (Setiawan, Oemar, & Pranaditya, 2017). Financial distress is the inability of a company to fulfill financial obligations that have matured in a timely manner which can lead to bankruptcy (Darsono & Ashari, 2005). The larger the size of a company, of course, it has a large number of assets, with a large number of assets, the company will be better able to solve the financial problems faced by the company and maintain its business continuity. However, a large company size can also make it easier for companies to obtain funding. so that later the greater the level of debt will cause the company difficulty in paying off the debt in the future so that it can cause financial distress. Previous research stated that the size of the company has an effect on the level of financial distress. The larger the size of the company, the possibility of financial distress that will be experienced by the company will decrease.

Companies with positive growth provide a sign that the company is growing and reduces the possibility of financial distress (Rahmawati & Khoiruddin, 2017). Based on the description above, the first hypothesis proposed in the study is: Previous research stated that the size of the company has an effect on the level of financial distress. The larger the size of the company, the possibility of financial distress that will be experienced by the company will decrease. Companies with positive growth provide a sign that the company is growing and reduces the possibility of financial distress (Rahmawati & Khoiruddin, 2017). Based on the description above, the first hypothesis proposed in the study is: Previous research stated that the size of the company has an effect on the level of financial distress. The larger the size of the company, the possibility of financial distress that will be experienced by the company will decrease.

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positive growth provide a sign that the company is growing and reduces the possibility of financial distress (Rahmawati & Khoiruddin, 2017). Based on the description above, the first hypothesis proposed in the study is:

H1: Firm size has an effect on financial distress.

**b. Firm Size has an Effect on Financial Distress**

The liquidity ratio shows the extent to which the company's ability to meet short-term financial obligations that have matured by utilizing the company's current assets (Raharjaputra, 2009). The greater the ratio of current assets to current liabilities, the higher the company's ability to cover its short-term liabilities. So the more liquid a company indicates the company is able to pay its maturing obligations and the less likely the company is to experience financial distress. However, liquidity that is too high cannot be said to be good, because there is a possibility that too high liquidity in the company's current assets contains uncollectible receivables. Previous research stated that liquidity has a negative effect on financial distress, If the company is able to finance and pay off its short-term financial obligations at maturity with well-available current assets, the potential for the company to experience financial

distress will be smaller (Hastuti, Triyono, & Achyani, 2014). Based on the description above, the second hypothesis proposed in the study is:

H2: Liquidity affects financial distress.

**c. The Effect of Leverage on Financial Distress**

Leverage describes the relationship between the company's debt to capital and assets. This ratio can see how far the company is financed by debt or external parties with the company's ability described by capital (Sartono, 2000). A company that relies too much on debt funds will result in greater liabilities in the future, and this will result in the company being vulnerable to financial difficulties or financial distress. The smaller the leverage, the better and safer for a company. Previous research stated that leverage has an effect on financial distress. Companies with debt that are greater than their total assets generally have negative equity, high leverage indicates a company's financial distress (Ananto, Mustika, & Handayani, 2017). Based on the description above, then hypothesis third proposed in the research are:

H3 : Leverage has an effect on financial distress.

**III. METHODOLOGY**

This type of research is a quantitative research. The population in this study is the financial statements of transportation companies listed on the BEI. The sampling technique used in this research is purposive sampling. Based on the sample selection, obtained 14 companies that meet the criteria in order to obtain 56 observational data and performed outliers as much as 6 data to obtain 50 observational data. The criteria used in the selection of the sample are as follows: (1) Transportation companies listed on the Indonesia Stock Exchange for the period 2018-2021; (2) Companies that have complete company data for the period 2018-2021; (3) Companies that use Rupiah in their financial statements; (4) Transportation companies that have an Altman Z-Score value of less than 1.1 or are said to be experiencing financial distress, Companies that have a value between 1.1 2.6 or are in the gray area and companies that have a Z-score value of more than 2.6 are selected as samples in this study. In other words, companies that experience and do not experience financial distress; (5) Companies that make financial statements in Rupiah (Rp). Data analysis in this study used multiple linear regression analysis with the help of SPSS 26 program, with operational definitions of variables as follows: Variable Operational Definition Table

Variable	Operational definition	Formula
Company Size (X1)	The company is able to show how big the size of the company is	Company Size = Ln Total Assets
Liquidity (X2)	Measuring the company's ability to pay obligations that must be met immediately with its current assets, namely total current assets with total current liabilities (short-term debt).	Current Ratio = Current Assets / Current Liabilities
Leverage (X3)	Measuring how much the company's assets are financed by debt or how much the company's debt affects asset management	Debt Ratio = Total Liabilities / Total Assets
Financial Distress(Y)	It is possible that the company is experiencing financial difficulties or is about to experience financial difficulties.	Z = 6.5 WC/TA + 3.26 RE/TA + 6.72 EBIT/TA + 1.05 MVE/BVD
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**IV. RESULT AND DISCUSSION**

**4.1 Result**

Test	N	K-SZ	Tolerance	VIF	Sig.
Normality	50	0.270			
Multicollinearity	50				
Company Size (X1)			0.994	1.006	
Liquidity (X2)			0.802	1.247	
Leverage (X3)			0.799	1.252	
Heteroscedasticity	50				
Company Size (X1)					0.784
Liquidity (X2)					0.840
Leverage (X3)					0.477
Auto correlation					2.038

Source: Data processed, 2022

Table of Multiple Linear Regression Analysis Test Result

Variable	Regression Coefficient	Tcount	Sig	Note:
Constanta	-18.518	-1,785	0.081	
Company Size	0.905	2,381	0.021	H1 accepted
Liquidity	0.085	0.224	0.824	H2 rejected
Leverage	-10,321	-8,750	0.000	H3 accepted
R2 = 0.700		Fcount=	35,798	
Adjusted R2 = 0.681		Sig =	0.000	

Source: Data processed, 2022

**4.2 Discussion**

**a. The Effect of Firm Size on Financial Distress**

Based on the t-test conducted, it obtained a significant value of 0.021 < 5%, so H1 is accepted, which means that the size of the company has an effect on financial distress. Company size is the size of the company can be measured by total assets or

company assets by using the calculation of the logarithmic value of total assets (Hartono, 2012). Companies belonging to the category of large companies will definitely be different from small companies in dealing with company problems, moreover the total assets owned are also different, so different policies will be determined. The size of the company also greatly influences the condition of the company on the economic policies carried out by the government. The results of this study are in line with previous research conducted by Rahmawati, D & Khoiruddin, M.

### **b. Liquidity Effect Against Financial Distress**

Based on the results of testing the second hypothesis, the results for significant value of  $0.824 > 5\%$ , so H2 is rejected, which means that liquidity has no effect on financial distress. The liquidity of a company can be defined as the ability. The results of this study indicate that liquidity has no effect on financial distress. According to Kusuma (2017) liquidity cannot be total measure is caused by two things. First, the company's failure collect receivables from the parties. Second, there is a transfer of current assets which is more focused on the return of its long-term obligations and neglecting its short-term obligations. The higher the current ratio cannot be a benchmark for decreasing the level of financial distress so that the possibility or potential for the company to experience financial distress will Getting lower. The results of this study support the research conducted by Septiani (2019) that liquidity has an effect on financial distress.

### **c. The Effect of Leverage on Financial Distress**

Based on the results of testing the third hypothesis, the results for significant value of  $0.000 < 5\%$ , so H3 is accepted, which means that leverage has an effect on financial distress. Leverage ratio is a ratio used to measure the company's long-term ability to meet its obligations (Ross et al., 2015). A high leverage ratio can lead to high financial risk, where this risk arises because the company has to bear large interest as well. The leverage variable has a positive effect on financial distress. According to the author, in carrying out its operations, the company does not use much funding from debt, so that with low debt, the possibility of the company's default is also low. Thus, the less financial distress occurs. The results of this study support research conducted by Ananto, Mustika & Handayani (2017) that leverage has an effect on financial distress.

## **V. CONCLUSION**

Based on the research that has been done, it can be concluded that company size and leverage have an effect on financial distress in transportation companies listed on the IDX during the 2018-2021 period. Meanwhile, liquidity has no effect on transportation companies listed on the IDX during the 2018-2021 period.

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