

# Determination of Financial Distress in Transportation Equipment Industry: Evidence from Indonesia

Wastam Wahyu HIDAYAT<sup>1\*</sup>, Triana YUNIATI<sup>2</sup>

<sup>1,2</sup>Faculty of Economics and Business, Universitas Bhayangkara Jakarta Raya, Indonesia

Email: wastam.wahyu@dsn.ubharajaya.ac.id<sup>1</sup>, triana.yuniati@dsn.ubharajaya.ac.id<sup>2</sup>

\*Corresponding Author

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## Abstract

*This study aims to measure the effect of leverage, current ratio, Operating expenses Operating income (OEI), firm size, and sales growth on financial distress in Transportation Equipment Industry listed on the Indonesian stock exchange for the period 2018 to 2020. The uniqueness of this research is that it is a case study in a mature Transportation Equipment Industry company so that it examines in depth, detail, intensively, and thoroughly on variables, especially those related to financial distress. The analytical method used in this study is multiple regression analysis using the SPSS version 23. The results of this study provide an explanation of Leverage and Sales Growth partially having a negative effect, Current Assets, Operating expenses Operating income, and Firm Size. and a partial positive effect on financial distress. dependent financial distress can be explained by the independent variables (leverage, current ratio, OEI, Firm size, and Sales growth) of 50.5 percent while 49.5 percent is influenced by other variables from this study.*

**Keywords:** Leverage, current ratio, operating expenses/ income, firm size, sales growth and financial distress

## 1. Introduction

The third week of January 2020, Covid-19 simultaneously attacked several countries in Asia, America, Europe, Australia, and Africa. As a result of the Covid-19 pandemic, economic activity has weakened and has changed the economic system throughout the country. The impact of the Covid-19 virus pandemic was also felt by several large companies in Indonesia, where the financial services authority (OJK) mapped several sectors that became potential losers and winners due to the Covid-19 pandemic. According to (Gusmiari, Desnirita, 2020) Earnings management can be viewed from several factors related to managers' motivation in managing earnings. One of these factors is Financial Distress. Companies that experience funding constraints (financial distress) tend to carry out earnings management always to provide the right signals in investors' eyes, and earnings management behavior increases with the increase in company financial distress. According to (Nuraini et al., 2021), A company is a default, financially distressed, or bankrupt when the financial ratio indicators are known, as reinforced by a previous study. Therefore, when using non-financial variables as independent, an intermediate variable is needed to determine the bankruptcy probability. According to (SUSDARYO et al., 2021), A company can be categorized as experiencing financial distress if the company has a performance that shows negative net income. if company experiences financial distress, the operating conditions of the firm deteriorate thus leading to heavy financial burden on the firm resulting to Financial distress. According to (Walela et al., 2022) Financial distress are circumstances that leads to firms being unable to fulfill their credit obligations to creditors and may result in bankruptcy, distress situations have been observed all over the world across continents hence emphasizing distress as a global problem. When firms are faced with distress situations, the immediate effect is on the firms' operations. Factors that

contribute to distress situations in firms have been identified and are varied on a wide scale. Firm size is one such factor among others including profitability, liquidity, leverage etc. Various studies across the globe have identified factors that contribute to distress ranging from managerial, operational expenses, firm size, sales growth and risk levels exposed to by the firm. According to (Nadiya Nafisamuna & Nurfauziah, 2022) Financial distress is a condition when the company's equilibrium cannot be achieved in the current situation. One of the characteristics of a company experiencing financial distress is when the company experiences liquidity cannot fulfill its obligations to the bank. The financial distress model helps companies detect financial failures before bankruptcy occurs. The research was conducted by measuring and viewing the company's financial statements. Therefore, the company's accounting information must also be complete. According to (Indriaty et al., 2019) Current ratio is a liquidity ratio that measures the ability of an entity to pay short-term liabilities. When the current ratio is low, it will have an impact on cash flow so that to cover regional operational costs, a larger number of short-term loans is needed and will affect financial distress. the current ratio as a ratio that measures the ability of local governments to maintain financial position. This is because the current ratio that's very high and very low indicates financial operational problems. prove that liquidity ratios have a significant effect in determining a company's financial distress. According to (Sunaryo, 2021), The liquidity ratio that will be used in this research is Current Ratio, the value of Current Ratio describes the company's ability to pay short-term debt using current assets. The high and low value of the current ratio shows the liquidity of the company in its ability to pay its short-term debt obligations. This ratio is used by prospective creditors to determine whether or not to provide short-term loans to companies. In addition to analyzing liquidity ratios, analyzing leverage ratios is also necessary to determine financial difficulties experienced by a company. According to (Ferdiansyah & Widyarti, 2022), The lower the OEI value, the

more efficient the operations of the bank. Meanwhile, a high BOPO value indicates that the use of resources managed by the bank is less efficient, so that it will increase the operational costs that must be borne and cause operational activities to not run properly, this will hinder the optimal income gain by bank operational activities. A high OEOL value will cause operational expenses to swell, so that banks must incur more costs to carry out their operational activities. This can cause banks to experience Financial Distress risk if the costs required to carry out operational activities are too high. According to, (Rianti & Yadiati, 2018) Firm size (the size of the company) illustrates the size of the total assets owned by a company. Firm size is the size of the company. The bigger the company access to funds will be more easily so that the agency costs will be even greater. Using the total assets in determining firm size by proxy natural logarithm of total assets. Large companies generally have better access to capital markets and it is easier to increase the funds with lower costs and fewer constraints than the smaller companies, this shows that reliance on internal funds will decrease with the increasing size of the company. Companies that have high asset indicates that the company has reached a stage. According to, (Setyawati & Amelia, 2018), Leverage, profitability, activity ratio, market value ratio, firm size, firm age or macroeconomic variables such as economic growth, exchange rate, stock exchange index, have not been used as variables to predict financial distress. These variables can be used for further research. a company is said to be successful in carrying out its marketing and product sales strategy if the company's sales growth has increased. This study aims to find empirical evidence that: Leverage, Current ratio, Operating Expenses Operating Income (OEOL), and company growth affect financial distress.

## 2. Literature Review

### 2.1 The Financial Statement Analysis

According to (Normiati & Amalia, 2021), According to the definition set forth in Statement of Financial Accounting Standards (PSAK) No. 1, that financial statements are a structured presentation of the financial performance and financial position of an entity. Financial reports can be a source of information that can be useful in making decisions about investment and funding. As stated in Statement of Financial Accounting Standards (PSAK) No. 1 that the purpose of the financial statements is to provide information related to the financial position, performance and cash flow of the company that can be used in making economic decisions for its users. Financial statement analysis needs to be done carefully by using the right methods and techniques to be able to produce the right decisions. The financial performance of a company is very beneficial for various parties (stakeholders). Financial statement analysis consists of two words, namely Analysis and Financial Statements. So it can be concluded that the analysis of financial statements is to describe the financial statements which involve the balance sheet and profit and loss to obtain information on the financial condition of a company more deeply which is very important in producing the right decision. Quality of Education Services.

### 2.2 Financial statements

According to, (Kazemian et al., 2017), Financial statements are a tool for testing a company to find out where the financial position of a company is, but financial statements are not only a testing tool but also financial statements have a role in helping

interested parties in making decisions. So the importance of financial statements for companies is because financial statements function as a tool to determine the financial position of a company and the results that have been achieved by a company. According to, (Rachma Sari et al., 2022) financial statements are information that describes the financial condition of a company, where the information can be used as a description of the financial performance of a company, and the purpose of financial statements is to provide information to parties in need about the condition of a company from the point of view of figures in monetary units. Meanwhile, the objectives of financial statements according to Financial Accounting Standards (PSAK) are as follows: to provide information regarding the financial position, performance, and changes in the financial position of a company that is useful for a large number of users in making economic decisions, meeting the common needs of most users. However, users may need to make economic decisions because they generally reflect the financial effects of past events and are not required to provide non-financial information, as management is accountable for the resources entrusted to it. Users who want to assess what has been done or the responsibility of management do so so that they can make economic decisions.. According to (Kazemian et al., 2017), In analyzing the financial statement, financial ratios are an important tool to evaluate a company's performance to find out the financial status of the company. Financial ratios are useful indicators to evaluate a firm's performance and financial situation. Profitability, liquidity and solvency, as well as the efficiency of management are important in determining corporate financial distresses as well as in the design and implementation of financial policies and investment. This is also supported by the researchers' view that financial ratios measuring size, liquidity, profitability, and leverage are likely to be important determinants of financial distress besides institutional and corporate governance factors.

### 2.3 Financial Ratio

According to (Normiati & Amalia, 2021) Analysis using financial ratios (financial ratios) is one of the most frequently used analyzes in predicting financial distress. This became an interesting topic after the discovery of a formula to facilitate company bankruptcy using the Altman Z-Score model. Furthermore, many researchers use financial ratios (financial ratios) to be analyzed and become bankruptcy prediction models. Financial ratios are important in analyzing companies and which improves companies through application practices. According to (Rianti & Yadiati, 2018), Financial Ratio Analysis To Predict Financial Distress Company concluded the most influence on the ratio of financial distress is the current ratio, net profit margin, net income growth has the result that cash flow does not have a strong influence on the financial distress, which examined the financial ratio analysis to financial distress.

### 2.4 Leverage Ratio

According to (Hidayat, 2017). Leverage is the ratio used to measure the extent of the companies' assets financed by their debt (how much the debt burden the companies against its assets) or this ratio is to measure the companies' ability to pay all of their short and long term obligations (total debt/total assets), while in practice, to cover the shortage of the funding needs, the companies have several choices of funds sources that can be used, one source of the funds used are loan capital (debt), relatively unlimited amount of loan capital, and motivate management to work harder and more creative because they

are burdened to fulfill their obligations. According to (Kazemian et al., 2017) Companies that have higher leverage may have a higher risk of bankruptcy, if they do not make payments on their external financing to their creditors. If the company wants to take out another loan, the lender will take some measurements of whether the company has too much debt and ask the company to keep its debt within reasonable limits. According to (Anue Kuraesin, Sussy Susanti, 2021), the leverage ratio is a ratio used to measure the extent to which a company's assets are financed by debt. This ratio can be calculated based on information from the balance sheet, namely in the items of assets and items of debt. Companies that have a higher level of debt are more likely to experience financial distress or bankruptcy than companies that have less debt. In this study, the leverage ratio is measured by debt to total assets. This ratio shows some of the assets used to guarantee debt. The DER formula, according to (Kazemian et al., 2017) is as Table 1.0.

## 2.5 Current Ratio

According to (Indriaty et al., 2019), Current ratio (CR) is a liquidity ratio that measures the ability of an entity to pay short-term liabilities. When the current ratio is low, it will have an impact on cash flow so that to cover regional operational costs, a larger number of short-term loans is needed and will affect financial distress. Assessed the current ratio as a ratio that measures the ability of local governments to maintain financial position. This is because the current ratio that's very high and very low indicates financial operational problems. Prove that liquidity ratios have a significant effect in determining a company's financial distress.. According to (Lumbantobing, 2020), Debt ratio expresses how much the company's assets are financed by debt. This variable was proxied by debt to asset ratio (DAR). Liquidity ratio expresses a ratio that indicates a company's ability to meet its obligations or pay its short-term debt. This variable was proxied by current asset ratio (CR) which is the ratio of total current assets to total current liabilities. Earning ratio describes ability to generate profit from its normal business activities. The ratio measured the ratio of earning after tax to total assets (ROA). Activity ratio measures the effectiveness and efficiency of companies in utilizing existing resources. The ratio was proxied by ratio of sales to total assets (TATO) The formula used to find the current ratio (CR) is as follows, according to (Lumbantobing, 2020), is as Table 1.0.

## 2.6 Operating Expenses Operating Income (OEOL)

According to (Ferdiansyah & Widyarti, 2022), The lower the OEOL value, the more efficient the operations of the bank. Meanwhile, a high OEOL value indicates that the use of resources managed by the bank is less efficient, so that it will increase the operational costs that must be borne and cause operational activities to not run properly, this will hinder the optimal income gain by bank operational activities. According to (Rifansa & Pulungan, 2022) Operating expenses to operating income is a company's profitability ratio that compares operating expenses with operating income, the higher the operating expenses, the less good the company's management is. Operating costs are costs incurred by banks in carrying out their main business activities such as interest costs, marketing costs, labor costs, and other operating costs. Operating income is the bank's main income, namely income derived from placement of funds in the form of credit and other operating income. According to, (Widana et al., 2021), OEOL is the ratio between Operational

Costs and Variable Operating Income. According to the Bank Indonesia Codification Regulation (2014) operational efficiency is measured by OEOL with a maximum limit of 93.52%. According to, (Ferdiansyah & Widyarti, 2022) is as Table 1.0.

## 2.7 Firm size

According to (Imasuen et al., 2022), that there are diverse constructs of firm size, this study measured firm size as the natural logarithm of total assets at fiscal year-end. According to (Rianti & Yadiati, 2018), firm size (the size of the company) illustrates the size of the total assets owned by a company. Firm size is the size of the company. The bigger the company access to funds will be more easily so that the agency costs will be even greater. Using the total assets in determining firm size by proxy natural logarithm of total assets. Large companies generally have better access to capital markets and it is easier to increase the funds with lower costs and fewer constraints than the smaller companies, this shows that reliance on internal funds will decrease with the increasing size of the company. According to (Sunaryo, 2021), the size of the company can be seen from the total assets owned by the company, the size of the company is the number and type of production capacity and capabilities of the company or the number and type of services that can be provided by the company simultaneously to its customers, Company size can be measured by the formula, (Rianti & Yadiati, 2018) is as Table 1.0.

## 2.8 Sales Growth

According to (Normiati & Amalia, 2021), Sales growth is a reflection of a company's ability to increase sales over time. By knowing how much sales growth, the company will be able to predict how much profit will be obtained. According to (Wangsih et al., 2021), Sales growth is a ratio used to measure how stable sales are and how successful the company is, from one period to the next period. Every company definitely wants to maintain and increase its sales from year to year and the company continues to run because of the increasing sales growth, the better prospects they have. otherwise, if the company's sales growth decreases, the greater the potential for the company to get into financial distress. According to (Ratu Liviani. Yoga T R, 2021), Sales growth is a ratio that illustrates the achievement of sales growth from year to year. Sales growth in this researcher is measured using the ratio of sales growth. Growth ratio is a ratio that illustrates the enterprise's skill to manage economic position amid economic growth and business sectors. According to (Afrianti et al., 2022), Sales growth or sales growth is one of the growth ratios that is useful for measuring the company's sales performance and as an indicator that can show the development of a company's sales level from period to period.

## 2.9 Financial distress

According to (Kanoujiya et al., 2022), Financial distress (FD) is an issue that needs specialized attention because of its probable consequences. Such consequences span all the areas of society, which may adversely affect all the firm's stakeholders, including society and the environment. Financial distress may not always culminate into bankruptcy, but stress beyond a threshold is always deleterious for the firms. According to (Mashudi et al., 2021) Financial distress is the possibility of a company going bankrupt, where it depends on the level of asset



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liquidity with the availability of credit. Financial distress is a condition in which the company's finances are in a crisis or unhealthy state. If the company is already in financial distress, management must be careful because it could enter the bankruptcy stage. According to (Nadiya Nafisamuna & Nurfauziah, 2022), Financial distress is a condition when the company's equilibrium cannot be achieved in the current situation. One of the characteristics of a company experiencing financial distress is when the company experiences liquidity cannot fulfill its obligations to the bank. The financial distress model helps companies detect financial failures before bankruptcy occurs. The research was conducted by measuring and viewing the company's financial statements. Therefore, the company's accounting information must also be complete. Variables that affect financial distress are liquidity, leverage, and profitability. According to, (Kurniawati, 2017) financial distress is

a situation when a company is unable to fulfill its obligations. Measurement of financial distress in this study uses the Altman model (Z-Score), is as Table 1.0.

The assessment criteria used in the Revised Altman method are,

If the Z Score smaller 1.81 is included in the criteria for the bankrupt company.

If the value 1.81 smaller Z-Score smaller 2.9 is included in the criteria for the gray area company.

If Z-Score value bigger 2.9 is included in the criteria for the company not to go bankrupt.

No	Variable	Measurement	Notation
1	Leverage	$\frac{\text{Total Debt}}{\text{Total Equity}}$	LEV
2	Current ratio	$\frac{\text{Current Asset}}{\text{Current Liability}}$	CR
3	Operting Expenses, Operating Income	$\frac{\text{Operating Expenses}}{\text{Operating Income}} \times 100\%$	OEOI
4	Firm Size	Firm Size = Ln(total asset)	FS
5	Sales Growth	$\frac{\text{Sales} - \text{Sales } t-1}{\text{Sales } t-1} \times 100\%$	SG
6	Financial distress.	$0,717 (X1) + 0,847 (X2) + 3,108 (X3) + 0,42 (X4) + 0,988 (X5)$ Information : Z-Score = bankruptcy index X1 = working capital / total asset X2 = retained earnings / total asset X3 = earning before interest and tax / total asset X4 = book value of equity / book value of total debt X5 = sales / total asset	Z-Score

Table 1.0. Description of Research Variables  
Source: Journal articles, 2014-2020

## Hypothesis

### Leverage affects to financial distress

According to, (Subiyanto & Siagian, 2022), The results study indicate that the existence of leverage can strengthen the effect of profitability in predicting financial distress. These results indicate that the existence of good leverage can affect the company's profitability. Bad leverage in the company can cause high cost of capital which in turn affects the company's financial condition. The company's ability to pay its obligations or debts can be described by its asset ratio where the lower the DAR ratio, the better the company's ability to pay its obligations.

According to (Wangsih et al., 2021), The results of hypothesis testing on the independent variable leverage shows a significance smaller than 0.05, which states that leverage partially has an effect on financial. According to, (Giarto & Fachrurrozie, 2020), Leverage is able to have a positive significant effect on financial distress. The result of this study is in line with pecking order theory which states that a decline in the value of a company is due to high leverage which results in a greater risk company suffering financial difficulties. Assets smaller than the debt owned by the company shows that most of the company's activities are financed by debt. High funding through debt that is not accompanied by an increase in income will make the company having trouble in paying debt and

interest. Thus, the higher the leverage, the greater the risk of the company's inability to pay off debt so that the company will get closer to difficult financial conditions. According to (Waqas & Md-Rus, 2018), This study has used leverage ratios to predict financial distress. Results show that total equity to total liabilities (TETL) and working capital to long-term debt (WCLD) ratios are insignificant in predicting financial distress while total liabilities to total assets (TLTA) ratio is significant with a positive coefficient sign. Results further reveal that interest coverage ratio (INTC) has a significantly negative relationship with financial distress. This negative relationship illustrates that a firm with the ability to service its interest payments can reduce the probability of financial distress.

H1: Leverage has an effect on Financial distress

### **Current Ratio affects to financial distress**

According to, (Normiati & Amalia, 2021), the test shows that the probability value of the current ratio is smaller 0.05, which means that the liquidity ratio as measured by the current ratio has a significant positive effect on the prediction of financial distress. These results indicate that there is a directly proportional relationship between the independent variable and the dependent variable. This means that the greater the company's ability to finance debt, the greater the possibility of financial distress. According to (Indriaty et al., 2019), Research study proves that the financial ratios of the financial statement is able to predict the financial distress and based on test results from the logistic regression model of research that indicates that the variable Current Ratio affect the financial distress. According to (Sunaryo, 2021), Based on the of the research results that have, it can be concluded that, Current Ratio partially has a significant effect on Financial Distress. According to, (Mashudi et al., 2021), the current liquidity ratio significantly impacts the financial difficulties of infrastructure, utilities, and transportation companies listed on the Indonesian Stock Exchange.

H2: Current Ratio has an effect on Financial distress

### **Operating Expenses Operating Income (OEOL) affect to financial distress**

According to (Ferdiansyah & Widyarti, 2022). research OEOL has a significance level which is more than 0.05. This shows that OEOL does not have a significant effect on Financial Distress. According to (Asyikin et al., 2018) Based on research it can be seen that the value The significance value of 0.009 is smaller than the significance, so it can be concluded, namely the operational cost variable to operating income (OEOL) has a significant effect on financial distress. The higher OEOL increases financial distress. The OEOL variable which has a positive (+) indicates that an increase in OEOL has resulted in sharia commercial banks tending to experience financial distress. According to (Suidarma et al., 2022) Based on the results of the study, the significance of the value of workload on operating profit (OEOL) is less than 0.05. So it can be concluded that the variable running fee on working profit (OEOL) has an

effective effect on monetary distress.

H3: OEOL has an effect on financial distress

### **Effect of Firm size affect to financial distress**

According to (Sunaryo, 2021). The results of the research on the effect of company size on financial distress have an effect because the sig value is obtained. smaller than 0.05. According to, (Rianti & Yadiati, 2018), Based on the results of research that has been done, conclude that company size has an effect, but not significant on financial distress. According to (Wangsih et al., 2021), that the size of the company which has a significance value of less than 0.05, indicates that partially the size of the company has a significant and negative effect on financial distress in retail trading sub-sector companies listed on the Indonesia Stock Exchange. According to (SUSDARYO et al., 2021) in this study states that the company size variable has a negative effect on financial difficulties. Based on the results of regression analysis, the firm size variable does not show a significant effect on the financial distress variable. According to the, (Liahmad et al., 2021) study, the results show that the significance value of the size companies to financial distress where the significance value is less than 0.05, it means that the company size variable has an effect and is significant on financial distress.

H4: Firm size has an effect on financial distress

### **Effect of sales growth affect to financial distress**

According to (Putri, 2021), based on the test results show that the sales growth variable has a significance value that is smaller than the 0.05 significance value, so it can be concluded that sales growth has a negative effect on financial distress. This means that the higher the sales growth rate of a company, the lower the company's tendency to experience financial distress. According to (Giarto & Fachrurrozie, 2020), the results of the study stated that sales growth was not able to affect financial distress. The results of this study are not in accordance with signaling theory, the company's management measures can provide guidelines for investors to see the company's opportunities in the future. Companies with increased sales will give a positive signal to potential investors that they have good performance and opportunities in the future. So that it can be considered by investors to decide to invest their funds in the company. According to (Wangsih et al., 2021), the results of hypothesis testing on the independent variable company size show a significance value that is smaller than 0.05. Stating that the size of the company partially affects financial distress. According to (Wangsih et al., 2021), the results of the Sales Growth hypothesis, which has a significance value greater than 0.05, indicate that sales growth has no effect on financial distress in retail trading sub-sector companies listed on the Indonesia Stock Exchange.

H5: Sales growth has an effect on financial distress.

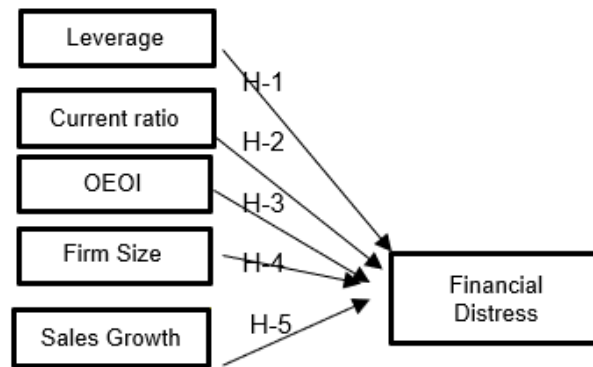


Figure 1. research model

## Research Method

### Research design

Research design is a process needed by researchers to solve research problems (compilation, implementation, and report writing). This research is an activation process that aims to find out something carefully, and critically and look for facts using certain methods. The nature of this research is quantitative research. Quantitative research is often defined as a research model based on the philosophy of positivism, used to research a particular population or sample. Researchers take the nature of quantitative research in this study, the data to be

processed in the study is financial statements in the form of numbers. The data used in this study is Panel data for the period from 2018 to 2020 from the annual reports of transportation equipment Industry listed on the IDX.

### Population and Sample

The population in this study was 28 transportation Equipment Industry listed on the Indonesia Stock Exchange. Based on the sample criteria needed and used in this study, there were 15 samples of transportation Equipment Industry that could be used as samples in this study, namely:

Normality Test	One-Sample Kolmogorov-Smirnov Test	Asymp. Sig. (2-tailed) ; 0.200	
Multicollinearity Coefficient Test	Variable	Tolerance	VIF
	Leverage	0,745	1,342
	Current Ratio	0,450	2,221
	OEOI	0,963	1,039
	Firm Size	0,323	3,039
	Sales Growth	0,523	1.912
Heteroscedasticity Test	Correlation is significant at : 0.01 level (2-tailed).	0.01 level (2-tailed) : 0.065	
Autocorrelation Test	Durbin Watson	1,651	

Table 1.1. Classic assumption test

Source: IBM SPSS Statistics 23 (data processed)

### Normality Test Results

A normal distribution test is a test to measure whether our data has a normal distribution so that it can be used in parametric statistics. The following are the results of the research normality test, The results based on Figure 1.1 Based on the results of the normality test with: One-Sample Kolmogorov-Smirnov Test shows the Asymp value. Sig. (2-tailed) ; 0.200, while the data normality requirements if the Sig is more than 0.05, so that the data is declared normally distributed.

### Multicollinearity Test

The multicollinearity test aims to test whether the regression model found a correlation between the independent variables.

To detect the presence or absence of multicollinearity symptoms in this regression model by looking at the Variance Inflation Factor (VIF). If the Variance Inflation Factor (VIF) VIF smaller 10 and the Tolerance value bigger 0.10, the model is free from multicollinearity. A good regression model should not correlate with independent variables (Ghozali, 2016). Based on table 1.1 above shows that the results of the multicollinearity test where the independent variables are Leverage, Current Assets, OEOI, Company Size, and Company Growth with a VIF value smaller 10 and a tolerance value bigger 0.10, it can be concluded that there is no multicollinearity between the independent variable and the variable. dependent.

### Heteroscedasticity Test

His test aims to see whether in the regression model there is

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a variable inequality from other observations, it is still called homoscedasticity and if it is called heteroscedasticity. To detect the presence or absence of heteroscedasticity if the significance value is greater than 0.05. According to table 1.1 based on the results of the heteroscedasticity test, the significance value is sig.0.065 so that Thus, it can be concluded that there is no heteroscedasticity, so it can be said that this regression model is good.

According to (Ghozali, 2016), the autocorrelation test aims to test whether in the linear regression model there is a correlation between the confounding error in period t and the confounding error in period t-1 (previous). A good regression model is a regression that is free from autocorrelation. Based on the data in Table 1.1 above. The Durbin-Watson value in the table above shows 1.651, while the dU value is 1.9018 and the 4-dU value is 2.0982 so that  $1.651 < 1.9018 < 2.0982$  So these results indicate that there is no autocorrelation symptom in this regression model.

## Autocorrelation Test

	B	Std.dev	t	Sig.
(Constant)	324,260	1778,397	-0,182	0,857
Leverage	-0,607	0,248	2,443	0.025
Current Ratio	1,047	0,519	2,017	0.059
OEOI	3,209	0,471	3,148	0.006
Firm Size	0,181	0,071	0,274	0,787
Sales Growth	-0,101	-0,039	-0,190	0,851
R	0,783			
Adj. R Square	0,505			
F-Statistics	-			

Table 1.2. Use data panel regression analysis  
Source: IBM SPSS Statistics 23 (data processed)

Based on table 1.2. The coefficient of determination ( $R^2$ ) shows the value of Adjusted R Square ( $R^2$ ) of 0.505. This indicates that the dependent variable of financial distress can be explained by the independent variables (leverage, current ratio, OEOI, Firm size, and sales growth) of 50.5 percent while other variables from this study influence 49.5 percent.

the dependent variable. This means that if the intensity of the use of debt in financing a company is greater, then the possibility of financial distress will be even greater. This research is supported by (Susdaryo et al., 2021), which states that in this study states that the leverage variable has a positive effect on financial distress. Based on the results of the regression analysis, the leverage variable shows a positive effect on financial distress.

## 4. Results And Discscusion

### The Effect of Leverage on Financial Distress

Based on the Table 1.2 t-test, the Leverage ratio in this study through the Debt to Equity Ratio has a significant level of 0.025. This shows that the significant level of the leverage ratio is less than 0.05, so it can be said that the leverage ratio has a significant negative effect on financial distress. In this case, leverage has a negative effect on financial distress because even though the company has a lot of debt but the company is still able pay off the debt and interest on the debt. Shows that even though the company have a large amount of debt, the company remains have good performance. So if the level debt obligations are high, the circumstances leading to in financial distress it can actually decrease because the company is still said to be able to pay the company interest. But if not immediately addressed then there can be financial distress. The results of this study are supported by, (Dianova & Nahumury, 2019), (Saputri & Asrori, 2019) and (Kazemian et al., 2017). Meanwhile, (Normiati & Amalia, 2021) based on the results of DAR Hypothesis test or Debt Asset Ratio to Financial Distress shows that the value is significantly less than 0.05, which means the current ratio has a significant positive effect on the prediction of financial distress. These results indicate that there is a directly proportional relationship between the independent variable and

### Effect of Current Ratio on Financial Distress

Based on the Table 1.2 t-test, it was found that the disclosure value of the Current Ratio in this study has a significant level of 0.059. This indicates that the significant level of the current ratio is 0.05, so it can be said that the current ratio has no positive and insignificant effect on financial distress. With every decrease in the current ratio, the possibility of the company experiencing financial distress is getting bigger. A high current ratio describes a high the company's ability to pay off current debt by using its current assets The larger the current ratio value, the smaller the potential for financial distress company because the company has a number of current assets such as cash or cash used to pay off its debts and finance its operational activities both in the period transactions or future periods so that the company does not experience financial difficulties or threatened their business continuity. The current Ratio has no significant effect on Financial Distress. This is because the companies that are the sample in this study can fund the company's operations in meeting short-term (debt) obligations with its current debts. Therefore the company manages current debt with its assets properly so that financial distress does not occur. This research was supported by, (Dianova & Nahumury, 2019), (Saputri & Asrori, 2019), and (Liahmad et al., 2021) and



(Anue Kuraesin, Sussy Susanti, 2021). Based on the research, (Normiati & Amalia, 2021) shows that the probability value of the current ratio is smaller; 0.05 ( $\alpha = 5\%$ ) which means that the liquidity ratio as measured by the current ratio has a significant positive influence on the prediction of financial difficulties. These results indicate that there is a directly proportional relationship between the independent variable and the dependent variable. This means that the greater the company's ability to finance debt, the greater the possibility of financial distress. This is usually seen from how much the company puts large amounts of funds on the current assets side to meet short-term obligations that will soon mature. The research are supported by (Sunaryo, 2021), (Lumbantobing, 2020), (Thim et al., 2011), (SUSDARYO et al., 2021), and (Kazemian et al., 2017)

### The Effect of OEOL on Financial Distress

Based on the Table 1.2 t-test, the value of OEOL disclosure in this study has a significant level of 0.006. This indicates that the significant level of OEOL is not more than 0.05, so it can be said that OEOL has a significant positive effect on financial distress. This shows that the OEOL has an effect on financial distress, the positive effect means that the higher the BOPO ratio, the higher the financial distress and conversely, the smaller the BOPO ratio, the better the condition of a company. If a company has a high OEOL ratio, then the company cannot operate efficiently because this high ratio indicates the amount of operating costs that must be incurred by the company to obtain operating income. A large number of operations will reduce the company's profit or profit because operating costs or expenses act as a deduction factor on the income statement. Companies must be able to suppress their operational activities so that the funds used can create profits from other activities. The research results are supported by, (Suidarma et al., 2022) and (Asyikin et al., 2018). According to (Zahranyana & Mahardika, 2018). Based on the partial test results that OEOL variable has a significance value of 0.398. It means that the Operational Cost of Operating Income (OEOL) has no effect on financial distress. This means that the higher the OEOL, the higher the probability of a bank to experience financial distress. The research results are supported by, (Ferdiansyah & Widyarti, 2022) and (Amalia et al., 2020)

### The Influence of Firm Size on Financial Distress

Based on Table 1.2 t-test, the value of company size disclosure in this study has a significant level of 0.787 or greater than 0.05, so it can be said that firm size has no effect on financial distress. This study shows that the high and low size of the company does not prove that the company will avoid financial problems depending on how the company manages the company well and efficiently. Firm size proxied by Ln Total Assets does not affect financial distress, this means that no matter how big the total assets are, the company cannot avoid the possibility of financial distress. The research results are supported by (Indriaty et al., 2019). According to (Wangsih et al., 2021) The results of hypothesis testing on the independent variable company size show a significance value smaller than 0.05. This shows that the size of the company has an effect on financial distress received. This means that the greater the total assets owned by a company, the less likely the company is to experience financial distress. This research is supported by (Rianti & Yadiati, 2018), (Abdu, 2022), (Liahmad et al.,

2021), (Thim et al., 2011) and (SUSDARYO et al., 2021).

### The Influence of Sales Growth Against Financial Distress

Based on the t-test of Table 1.2, the disclosure value of sales growth through sales growth in this study has a significant level of 0.851. This shows that the significant level of sales growth is greater than 0.05. This means that sales growth has no impact on financial distress. The company's growth as measured by the sales growth ratio reflects the ability to increase its sales from time to time. This is because fluctuations in the value of sales growth have no impact on financial distress, because it is balanced by the increase and decrease in operational costs so that it will create profits. Sales Growth does not affect Financial Distress. This could be because this company has relatively stable sales and it is safer to obtain loans so that it can bear the burden if sales are unstable. Companies that have high sales growth values can maintain their viability of the company because the company's profits are increasing. The research results are supported by (Wangsih et al., 2021), (Giarto & Fachrurrozie, 2020), (Dianova & Nahumury, 2019) and (Normiati & Amalia, 2021). According to, (Putri, 2021) Based on the test results using multiple linear regression, it shows that the sales growth variable has a regression significance level of 0.007, which is smaller than the significant value of 0.05, so it can be concluded that sales growth has effect negative on financial distress. This shows that the higher the level of sales growth a company has, the lower the company's tendency to experience financial distress. The research results are supported by, (Sitanggang et al., 2021).

### 5. Conclusions

Based on the results of research, theoretical studies, and data processing, it can be concluded as follows:

Leverage (DER) has a significant effect on financial distress. High leverage results in the value of financial distress in the company getting smaller, because the company can utilize its debt properly for the company's operational activities so that it will not be at risk of experiencing financial distress. Liquidity (Current Ratio) has no significant effect on financial distress. Insignificance of the liquidity ratio can also occur because the company has low current liabilities and is more concentrated on long-term liabilities, so it does not affect the company's condition. The OEOL variable has a significant effect on financial distress. The greater the OEOL value, the more inefficient the company's management in managing its operational costs. OEOL which tends to increase continuously shows that the company's management is not able to maximize revenue to cover its operational costs. Firm size has no effect but is not significant on financial distress. This can be caused by companies that have total assets, large or small, have many partners and have a high level of investment, but it can also be caused by economic conditions that change every year which allows companies to experience financial pressure. Sales growth has no and no significant effect on financial distress. In this case, the higher the level of sales does not automatically increase the company's profit because of high operational costs so that it does not have an impact on financial distress.



## 6. Limitations

Limitations in this study largely arise from the use of secondary data of only three years. The data selected is only transportation industry data with only five variables. Thus, it is not possible to identify the exact role of distress. Also, given the cross-sectional nature of the survey, it is not possible to ascertain causality. Despite these limitations, this manuscript provides empirical evidence and theoretical framework in the study of the relationship between Leverage, current Ratio, OEOI, firm size and sales growth. In addition, it highlights the importance of how companies avoid distress.

## References

- [1] Afrianti, F., Uzliawat, L., & Ayu Noorida S. (2022). The Effect Of Leverage, Capital Intensity, And Sales Growth On Tax Avoidance With Independent Commissioners As Moderating Variables (Empirical Study On Manufacturing Companies Listed On The Indonesia Stock Exchange In 2017-2020). *International Journal of Science, Technology & Management*, 3(2), 337–348. <https://doi.org/10.46729/ijstm.v3i2.441>
- [2] Azis, Y. M. (2021). Financial Ratio Analysis In Predicting Financial Distress Of Food And Beverage Companies With Logistic Regression. *Sinergi: Jurnal Ilmiah Ilmu Manajemen*, 11(2), 43–49. <https://doi.org/10.25139/sng.v11i2.4157>
- [3] Asyikin, J., Chandrarin, G., & Harmono. (2018). Analysis Of Financial Performance To Predict Financial Distress In Sharia Commercial Banks In Indonesia. *International Journal of Accounting, Finance, and Economics*, 1(2), 11–20. <https://doi.org/10.33395/owner.v3i1.102>
- [4] Dianova, A., & Nahumury, J. (2019). Investigating the Effect of Liquidity, Leverage, Sales Growth and Good Corporate Governance on Financial Distress. *Journal of Accounting and Strategic Finance*, 2(2), 143–156. <https://doi.org/10.33005/jasf.v2i2.49>
- [5] Ferdiansyah, F., & Widyarti, E. T. (2022). Analysis of CAMEL ratio on financial distress banking companies in Indonesia. *Diponegoro International Journal of Business*, 5(1), 47–56. <https://doi.org/10.14710/dijb.v5i1.2022.47-56>
- [6] Giarto, R. V. D., & Fachrurrozie, F. (2020). The Effect of Leverage, Sales Growth, Cash Flow on Financial Distress with Corporate Governance as a Moderating Variable. *Accounting Analysis Journal*, 9(1), 15–21. <https://doi.org/10.15294/aaaj.v9i1.31022>
- [7] Gusmiari, Desnirita, R. D. S. (2020). The Effect of Financial Distress, Free Cash Flow, Profitability, and Leverage on Profit Management With Audit Quality as a Moderated Variable. *PalArch's Journal of Archaeology of Egypt/ Egyptology*, 17(6), 7767–7786.
- [8] Hidayat, W. W. (2017). The Influence of Size, Return on Equity, and Leverage on the disclosure of the Corporate Social Responsibility (CSR). *International Journal of Education and Research*, 5(8), 57–66.
- [9] IMASUEN, O. F., OKORO, E. G., & YAHAYA, G. H. (2022). Chief Executive Officer Attributes and the Value of the Firm: Does Firm Size Play a Moderating Role? *International Journal of Management and Sustainability*, 11(1), 46–57. <https://doi.org/10.18488/11.v1i1.2976>
- [10] Indriaty, N., Setiawan, D., & Pravasanti, Y. A. (2019). The Effects Of Financial Ratio, Local Size And Local Status On Financial Distress. *International Journal of Economics, Business and Accounting Research (IJEBAAR)*, 3(01), 38. <https://doi.org/10.29040/ijebar.v3i01.381>
- [11] Kanoujiya, J., Rastogi, S., & Bhimavarapu, V. M. (2022). Competition and distress in banks in India: An application of panel data. *Cogent Economics & Finance*, 10(1). <https://doi.org/10.1080/23322039.2022.2122177>
- [12] Kazemian, S., Shauri, N. A. A., Sanusi, Z. M., Kamaluddin, A., & Shuhidan, S. M. (2017). Monitoring mechanisms and financial distress of public listed companies in Malaysia. *Journal of International Studies*, 10(1), 92–109. <https://doi.org/10.14254/2071-8330.2017/10-1/6>
- [13] Kurniawati, S. (2017). Bankruptcy Analysis Using Altman Z Score Model In Manufacturing Company At Indonesia Stock Exchange In 2013-2014. *Journal of Auditing, Finance, and Forensic Accounting*, 5(1), 1. <https://doi.org/10.21107/jaffa.v5i1.3300>
- [14] Liahmad, L., Rusnindita, K., Utami, Y. P., & Sitompul, S. (2021). Financial Factors and Non-Financial to Financial Distress Insurance Companies That Listed in Indonesia Stock Exchange. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(1), 1305–1312. <https://doi.org/10.33258/birci.v4i1.1757>
- [15] Lumbantobing, R. (2020). The Effect of Financial Ratios on the Possibility of Financial Distress in Selected Manufacturing Companies Which Listed in Indonesia Stock Exchange. *Proceedings of the 6th Annual International Conference on Management Research (AICMaR)*, 2019. <https://doi.org/10.2991/aebmr.k.200331.014>
- [16] Mashudi, M., Himmati, R., Ardillah, I. F. R., & Sarasmita, C. (2021). Financial Distress Prediction in Infrastructure, Utilities, and Transportation Sector Companies 2015-2020. *Jurnal Keuangan Dan Perbankan*, 25(3), 656–670. <https://doi.org/10.26905/jkdp.v25i3.5858>
- [17] Nadiya Nafisamuna, & Nurfaiziah. (2022). Potentials Of Financial Distress Before And During Covid-19 Pandemic In Food And Beverage Companies Listed On The Indonesia Stock Exchange. *International Journal of Science, Technology & Management*, 3(4), 1211–1218. <https://doi.org/10.46729/ijstm.v3i4.574>
- [18] Normiati, N., & Amalia, D. (2021). Analysis Of The Effect Of Financial Ratio On Financial Distress Conditions In Manufacturing Companies Listed In Indonesia Stock Exchange. *Journal Of Applied Managerial Accounting*, 5(2), 105–120. <https://doi.org/10.30871/jama.v5i2.3548>
- [19] Nuraini, A., Leon, F. M., & Usman, B. (2021). The Role of Non-Financial Factors in Detecting Bankruptcy by Mediating Financial Performance. *Journal of Hunan University*, 48(10), 489–499.
- [20] Putri, P. A. D. W. (2021). The Effect of Operating Cash Flows, Sales Growth, and Operating Capacity in Predicting Financial Distress. *International Journal of Innovative Science and Research Technology*, 6(1), 638–646. [www.ijisrt.com638](http://www.ijisrt.com638)
- [21] Rachma Sari, K., Martini, R., Almira, N., Hartati, S., & Husin, F. (2022). Prediction of Bankruptcy Risk Using Financial Distress Analysis. *Golden Ratio of Finance Management*, 2(2), 77–86. <https://doi.org/10.52970/grfm.v2i2.127>
- [22] Liviani, R., & Rachman, Y. T. (2021). The influence of leverage, sales growth, and dividend policy on company

- value. *International Journal of Financial, Accounting, and Management*, 3(2), 165–178. <https://doi.org/10.35912/ijfam.v3i2.189>
- [23] Rianti, I. P., & Yadiati, W. (2018). How financial distress influence by firm size. *International Journal of Scientific and Technology Research*, 7(1), 149–153. [www.ijstr.org%0A149](http://www.ijstr.org%0A149)
- [24] Rifansa, M. B., & Pulungan, N. A. F. (2022). The Effect of Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), Net Interest Margin (NIM), Loan to Deposit Ratio (LDR) and Operational Costs and Operational Revenue (BOPO) On Return on Assets (ROA) in Bank IV Indonesia. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 5(2), 15723–15737. <https://doi.org/https://doi.org/10.33258/birci.v5i2.548415723>
- [25] Saputri, L., & Asrori. (2019). The Effect of Leverage, Liquidity and Profitability on Financial Distress with the Effectiveness of the Audit Committee as a Moderating Variable. *Accounting Analysis Journal*, 8(1), 38–44. <https://doi.org/10.15294/aaj.v8i1.25887>
- [26] Setyawati, I., & Amelia, R. (2018). The Role of Current Ratio, Operating Cash Flow and Inflation Rate in Predicting Financial Distress: Indonesia Stock Exchange. *Jurnal Dinamika Manajemen*, 9(2), 140–148. <https://doi.org/10.15294/jdm.v9i2.14195>
- [27] Sitanggang, T. N., Cindy, C., Hansen, H., Jesslyn, J., & Cynthia, C. (2021). Factors Affecting Financial Distress in Manufacturing Companies in the Food and Beverage Sub-Sector Listed on the Indonesia Stock Exchange in 2016–2020. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(2), 3213–3219. <https://doi.org/10.33258/birci.v4i2.2057>
- [28] Subiyanto, I. G. S., & Siagian, H. L. (2022). The Effect of Profitability on Financial Distress with Leverage as a Moderating Variable in Pharmaceutical Sub-Sector Companies Listed on the IDX from 2018-2020. *Budapest International Research and ...*, 5(2), 9734–9742. <https://doi.org/https://doi.org/10.33258/birci.v5i2.4769>
- [29] Suidarma, I. M., Tisya Widayari, N. W., Sudama, I. K., Arniti, N. K., Marsudiana, I. D. N., & Mahaputra, I. D. M. R. (2022). Analysis of the Determining Factors of Financial Distress (A Case Study at PT. Bank Rakyat Indonesia (Persero). *International Business Research*, 15(5), 21. <https://doi.org/10.5539/ibr.v15n5p21>
- [30] Deni Sunaryo. (2021). Identification of Financial Distress With Company Size As A Moderating Variables in Southeast Asia Property and Real Estate Industry. *International Journal of Science, Technology & Management*, 2(1), 349–363. <https://doi.org/10.46729/ijstm.v2i1.115>
- [31] Susdaryo, Y., Sofiaty, N. A., Kumartih, I., Limakrisna, N., Che Haat, M. H., Muhammad, Z., Kusumawardani, A., & Saputra, J. (2021). Factors That Affect Financial Distress In Indonesia. *International Journal Of Research -Granthaalayah*, 9(9), 306–315. <https://doi.org/10.29121/granthaalayah.v9.i9.2021.4269>
- [32] Thim, C. K., Choong, Y. V., & Nee, C. S. (2011). Factors affecting financial distress: The case of Malaysian public listed firms. *Corporate Ownership and Control*, 8(4 D), 345–351. <https://doi.org/10.22495/cocv8i4c3art3>
- [33] Walela, E., Omagwa, J., & Muathe, S. (2022). Financial Risk, Firm Size and Financial Distress: Turbulent Times for Firms Listed at the Nairobi Securities Exchange, Kenya. *Advanced Journal of Social Science*, 10(1), 88–102. <https://doi.org/10.21467/ajss.10.1.88-102>
- [34] Wangsih, I. C., Yanti, D. R., Yohana, Kalbuana, N., & Cahyadi, C. I. (2021). Influence Of Leverage , Firm Size , And Sales Growth On Financial Distress. *International Journal of Economics, Business and Accounting Research (IJEBAAR)*, 5(4), 180194. <https://jurnal.stieaas.ac.id/index.php/IJEBAAR>
- [35] Waqas, H., & Md-Rus, R. (2018). Predicting financial distress: Importance of accounting and firm-specific market variables for Pakistan's listed firms. *Cogent Economics & Finance*, 6(1), 1545739. <https://doi.org/10.1080/23322039.2018.1545739>
- [36] Widana, I. W. D., Yasa, G. W., & Suaryana, I. G. N. A. (2021). Effect of CAR, NPL, and BOPO on NIM with ROE as a moderating variable. *International Research Journal of Management, IT and Social Sciences*, 8(3). <https://doi.org/10.21744/irjmis.v8n3.1469>