

Original Research Article

FINANCIAL DISTRESS: DO PROFITABILITY, LEVERAGE, LIQUIDITY, OPERATING CAPACITY AND COMPANY SIZE MATTER?

ABSTRACT

Aims: To find out how financial ratios in this case, Profitability, Leverage, Liquidity, Operating Capacity and Company Size Ratios affect Financial Distress

Study design: Profitability negatively affects financial distress, Leverage positively affects financial distress, Liquidity negatively affects financial distress, Operating Capacity negatively affects financial distress and Company Size negatively affects financial distress.

Place and Duration of Study : The population of this study consists of 37 transportation and logistics companies listed on the Indonesia Stock Exchange (IDX) for the period 2018-2022.

Methodology: The population of this study consists of 37 transportation and logistics companies listed on the Indonesia Stock Exchange (IDX) for the period 2018-2022.

Results: The results of partial data analysis show that profitability, leverage, liquidity and operating capacity ratios have no effect on financial distress. Meanwhile, the size of the company negatively affects financial distress.

CONCLUSION: The Results Of This Study Support Signal Theory In Explaining Profitability Ratios, Leverage Ratios, Liquidity Ratios, Operating Capacity And Company Size To Financial Distress

Keywords: Company Size, Financial Distress, Leverage, Liquidity, Operating Capacity, Profitability

1. INTRODUCTION

The global development economy is going through a really quick progress. Powerful and knowledgeable businesses will gain more and more due to the pervasive impact of globalization. However, on the other hand, newly growing businesses or businesses that are still on a national scale will need help if they want to compete with foreign companies. The impact is that these companies will experience *financial distress* in their companies (Pawitri & Alteza, 2020). When the Company experiences *financial distress*, the Company's position transitions from stages. Several companies are experiencing financial difficulties, including the transportation and logistics sectors. The Business's inability must fulfill its commitments to the fullest extent results from declining revenue. If this happens continuously, debt levels will rise, increasing the likelihood of *financial distress* (Khasanah, Siti Novati Uswatun, 2021).

Financial Distress is when the Company cannot continue its business activities because it cannot pay obligations at a predetermined time. In addition, *financial distress* can be interpreted as a situation where a business experiences a financial crisis. *Financial distress*

Comment [A1]: Delete

Comment [A2]: Restate this to read as follows:
To Establish effect of Profitability, Leverage, Liquidity and Operating Capacity of Transportation & Logistic Companies Listed in Indonesia Stock Exchange (IDX)

Comment [A3]: Mention research design

Comment [A4]: Was the study undertaken on a census of all the 37 firms? If so mention that it is a census.

Comment [A5]: The Author has repeated what is mentioned under «Place and duration of Study. Here, the Author ought to include the Methodology used in analysis, the model and relevant diagnostic tests applied. Mention the research design employed in the study e.g (Causal (explanatory) research design in your Case)
-Mention the Theories that you have used to support your dependent and independent variables. Eatleast Each Variable to have THEORY Supporting it.

Comment [A6]: Panel data regression analysis. The results of your analysis MUST have an effect on Distress. The effect is EITHER positive or Negative. Kindly indicate Results of the findings with reference to p-value interpretations explained below.

Comment [A7]: Kindly include the Unique Contribution of your research to Theory, Practice and Policy

Comment [A8]: Kindly use TIMES NEW ROMAN FONT

is usually caused by an entity that defaults on debtor debts because it runs out of funds to continue its operations (Sitorus et al., 2022). The causes of the Company's financial problems can be grouped into internal factors such as sales below target, production errors, and inefficiencies, as well as external factors such as world wars, global economic recessions, and pandemics, including COVID-19. The coronavirus outbreak in 2020 included disasters for all companies, including the transportation and logistics sectors (Sholikhah & Rokhmania, 2022).

Many companies have experienced bankruptcy or are indications of bankruptcy due to technological advances in which consumer behavior changes, especially in the transportation and logistics sectors. Consumer behavior in the transportation and logistics sector, which has shifted from conventional to online, is the main factor indicative of bankruptcy. The Company's financial condition, which initially experienced profit, was slowly displaced. The Company experienced difficulties in cash flow, so finally, the ability to pay operational costs and overdue debts was driving. On the other hand, the Company needed help in improving its operational performance, which impacted decreasing revenue. This is a big problem for companies that employ a large-scale workforce. The Company's financial performance will suffer if it is unable to boost profits. If this continues, the company's finances—regardless of how solid they are—will be displaced and will eventually deteriorate, leading to the company's bankruptcy. (Mappadang et al., 2019).

Financial distress by determining the right strategy and policy to predict bankruptcy/failure to use financial ratios as a measuring tool to determine financial performance. The profitability ratio, leverage ratio, liquidity ratio, operating capacity, and company size are the financial ratios that were employed in this investigation. These ratios can show the Company's financial performance and efficiency in general to predict the occurrence of financial *distress*.

The Profitability Ratio, the first financial performance metric, shows how profitable the company can make use of all of its current resources and capabilities, including cash, capital, sales activity, personnel, branch locations, and so forth.(Darmawan et al., 2020). This study measures Profitability using Net Income and Total Assets are compared using (ROA) Return on Assets (Hanafi & Halim, 2016).

The second thing that causes financial trouble is leverage. Leverage is a gauge of a business's capacity to use assets with a fixed load. In this investigation, the ratio of debt to equity (DER) co, also known as the debt ratio, serves as a stand-in for leverage calculations. The percentage of all the Company's debts is calculated using this ratio. If the company has a smaller debt ratio, investors will be more likely to invest because it suggests a higher level of fund security (Maronrong et al., 2022).

The third factor that causes *financial distress* is the Liquidity ratio, the Liquidity ratio is widely studied using the *Current ratio* (CR) calculation. Liquidity is a measuring tool to determine the company's ability when it includes *maturing current liabilities* so that it can make the best use of its current assets, so the company does not experience *financial distress* (Sianturi et al., 2021).

The activity ratio is the fourth element that contributes to financial distress. The operating capacity The ratio is a metric accustomed to assess how much revenues A business generates relative to its total assets utilized. This demonstrates the business's capacity to efficiently use all of its resources to boost sales. (Handayani et al., 2019). *Total asset turnover, which contrasts net sales with the average total assets, is used to calculate operating capacity.* (Prihadi, 2019).

Another factor that causes *financial distress* is the Size of The Business. Company Size explains a company's size, which can be stated using net sales or total assets (Darmawan et al., 2020). The larger the size of the company, the greater its overall assets, and the more able it is to pay off future obligations in order to keep the business out of financial trouble *conditions* (Suryani Putri & NR, 2020). The natural logarithm (Ln) of total assets is used in this study to calculate the company's size. (Sholikhah & Rokhmania, 2022).

This research is a development research from (Susanti et al., 2020) that uses *financial distress* as its dependent Variable. Meanwhile, the independent variable is taken from the financial ratio. Financial ratios consist of Profitability with a proxy Return on Assets (ROA), Leverage using the Debt to Equity Ratio (DER) as a Stand-in, Liquidity with a proxy Current Ratio (CR), *Operating Capacity* with Total asset turnover (TATO) proxy and Company Size with Natural Logarithm (Ln) proxy of total assets.

Researchers also added the *Operating Capacity* and Company Size ratio from research conducted (Sholikhah & Rokhmania, 2022). Because operating capacity is one of the financial measures thought to be able to predict how much sales income and the quantity of assets possessed by a company, it was added together with company size. Another difference is also found in the proxy used in the dependent and independent variables. In research (Susanti et al., 2020) for the dependent Variable using the Zmijewski model as a calculation of *financial distress*, while this study uses a dummy variable with the calculation used is the *Altman Z-Score*. The Independent Variable on the *Leverage* ratio uses a Debt to Asset (DAR) proxy, while The Debt to Equity Ratio (DER) is used in this study.

The background above shows that there are inconsistent research results along with the phenomena that have been described earlier, so researchers are interested in conducting this study. In this study, researchers used logistics and transportation sector companies Listed with the Stock Exchange of Indonesia (IDX). The reason researchers use firms in the transportation and logistics sector as research objects is based on the background of existing problems to ascertain how financial ratios affect the possibility of *Financial Distress* according to the study's title "**Financial Distress: Do Profitability, Leverage, Liquidity, Operating Capacity, and Company size matter?**"

LITERATURE REVIEW

Signaling Theory

The management of the company uses a tactic known as "*signaling theory*" to provide investors hints on how the The company's management sees future. Send a signal theory informs outside parties about the company's potential future state. Good news from the company can include things like earnings reports, dividend payments, and company conditions that are doing well. Bad news can include things like losses that the company is experiencing, making it unable to pay profits or excessive debt, which raises the possibility of insolvency (Dirman, 2020).

Financial Distress

When a company's finances are unhealthy or in crisis, it is said to be in *financial distress* (Pawitri & Alteza, 2020). *Signaling theory* is related to *financial distress*; if the Company's financial statements show bad results, then investors will not invest. Companies that can provide good signals to investors can indirectly add value to the Company. The existence of information, such as annual financial statement information, can infer the state

Comment [A9]: Listed in thw Indonesia Stock Exchange (IDX)

Comment [A10]: This research was motivated by financial distress problems of firms in the Transport & logistic Sector Listed in Indonesia Stock Exchange in the period 2018-2022

Comment [A11]: Include Theoretical Reviews that support your dependent and Explanatory Variables. Atleast a theory for each Variable

Comment [A12]: •Include a heading titled : Empirical Literature Review

•Perhaps you should organise the empirical review as follows:-

1. Effect of Profitability on financial distress
2. Effect of Lverage on financial distress
3. Effect of Liquidity on financial distress
4. Effect operating capacity on financial distress
5. Effect of firm size on financial distress

of a company that investors use as a consideration before making investment decisions (Setyowati & Sari Nanda, 2019).

Profitability

A ratio called profitability is used to assess a company's capacity for making profits. The Company must efficiently manage its resources in order to maximize profit. ROA, or return on asset ratio, is used as a stand-in for the profitability ratio. ROA can be known through the information presented within the Business's financial statements. This is consistent with signal theory, which states that investors can know the signals of a company. The higher the ROA value, The greater the capacity of the Company to earn earnings by using its resources. Conversely, the smaller ROA value suggests that the management of the Company's assets is less effective and will make the Company's internal funding sources for investment more difficult to manage, which can increase the potential for financial distress (Sholikhah & Rokhmania, 2022). Thus, Profitability affects *financial distress*. This is in line with research conducted by (Sholikhah & Rokhmania, 2022), (Maronrong et al., 2022), (Suryani Putri & NR, 2020), (Wibowo & Susetyo, 2020), (Muzharoatiningsih, M & Hartono, 2022), and (Susilowati et al., 2019) Profitability negatively affects *financial distress*.

H1: Profitability affects *financial distress* negatively

Leverage

The *leverage* ratio is the source of funding the Company obtains through loans. The Company uses these funds to finance its assets. Does not include other funding sources such as capital or equity (Rahmawati et al., 2023). When a business has a high amount of Debt, then interest financing obligations will be heavier, and this condition will impact the inability of total assets to meet existing obligations (Maronrong et al., 2022). Based on the relationship between signal theory and *leverage*, it is explained that management can be said to be able to manage the Company's wealth well and be able to maintain its capital, showing that this is a good signal for external parties so that the Company does not lose the trust of creditors to provide loans and investors. Lowering the leverage level can be a good signal to investors and the other way around. The greater the degree of leverage can be a signal, especially for creditors, in providing loans. High leverage illustrates that the Company has difficulty paying off its debts at maturity and in the future (Wulandari & Jaeni, 2021). Thus, *leverage* has a positive effect on *financial distress*. This is in line with research conducted by (Susanti et al., 2020), (Pawitri & Alteza, 2020), (Antoniawati & Purwohandoko, 2022), (Maronrong et al., 2022), (Suryani Putri & NR, 2020), (Trisnawati, 2021), (Khasanah, Siti Noviaty Uswatun, 2021), (Permatasari, 2022), (Susilowati et al., 2019), (Hakim et al., 2020), (Stepani & Nugroho, 2023), and (Panjaitan et al., 2022), *Leverage* has a positive effect on *Financial Distress*.

H2: *Leverage* affects *Financial Distress* positively

Liquidity

The liquidity ratio is a metric that illustrates a company's capacity to settle its short-term debt. The *leverage* ratio is also used to measure how much Resources are financed by Debt. A low level of leverage suggests only A tiny part among the Company's holdings financed thru Debt. Conversely, if the amount of the When the leverage The ratio is elevated, it suggests the The business possesses a great degree of Debt, which will force the

Comment [A13]: Perhaps the sub-heading should read:

EFFECT OF PROFITABILITY ON FINANCIAL DISTRESS

Here, you are expected to review Global, regional and local studies on effect of profitability on financial distress in Transport & Logistical firms listed in other Countries Stock Exchange Markets. Start with International reviews, global and locally and include the Most recent studies.

- In your review, kindly comment on methodology used, research findings and the research GAPS (you can mention Conceptual, Contextual, methodology, time or regional gaps if research was not done in your country..
- Do this for all your INDEPENDENT VARIABLES

Comment [A14]: This should read as:-
Effect of Leverage on Financial Distress

- Kindly review previous studies on effect of Leverage on financial distress in your country and other countries. Mention the methodology used by previous researcher and clearly bring out the RESEARCH GAP that your study intends to fill.
- DO THIS FOR ALL YOUR EXPLANATORY VARIABLES and You are Good to Go!

Comment [A15]: Kindly Proof Read your Work!

Comment [A16]: REPEATED Words. Please ProofREAD the manuscript

business to pay off obligations (Trisnawati, 2021). Based on the relationship between signal theory and Liquidity, it explains to users financial statements, especially for investors and creditors, especially if a good quality company can show good signals, which can show positive signals in the form of relevant information for investors and creditors because the Company has been considered capable of paying off its current term and is considered capable of its management. Basically, investors also see from the level of Liquidity of a company that if it is of good value, investors will get full confidence if the investment they make in the Company is right (Wulandari & Jaeni, 2021). Thus, Liquidity negatively affects financial distress. This is in line with research conducted by (Susanti et al., 2020), (Sholikhah & Rokhmania, 2022), (Pawitri & Alteza, 2020), (Purwaningsih & Safitri, 2022), (Wibowo & Susetyo, 2020), (Trisnawati, 2021), (Stepani & Nugroho, 2023), and (Moch et al., 2019) Liquidity negatively affects financial distress.

H3: Liquidity affects *Financial Distress* negatively

Operating Capacity

Operating Capacity is a ratio used to measure the efficiency of using resources or assets owned by the Company to generate sales. The proxy used is *total asset turnover* (TATO). If TATO produces a higher value, the asset turnover is faster to generate profits, and using all assets to generate sales is more optimal (Ramadhani & Nisa, 2019). The better the monetary results, the less substantial the possibility of financial distress. Based on the relationship between signal theory and Operating Capacity, it is explained that the increasing turnover of company assets can produce maximum results. In this case, the high *Total Asset turnover* can be a good signal from the Company for investors because the Company has been able to get maximum value when the activity ratio is high (Wulandari & Jaeni, 2021). Thus, *operating capacity* negatively affects *financial distress* (Pawitri & Alteza, 2020). This is consistent with studies carried out by (Sholikhah & Rokhmania, 2022), (Pawitri & Alteza, 2020), (Wibowo & Susetyo, 2020), (Setyowati & Sari Nanda, 2019), (Handayani et al., 2019), (Arrum & Wahyono, 2021), (Permatasari, 2022), (Susilowati et al., 2019) and (Pancawitri & Dillak, 2022) *Financial Distress is negatively impacted by Operating Capacity*.

H4: Operating Capacity Negatively Affects *Financial Distress*

Company Size

The Company's Size describes how much information is contained in a Business and how much total assets the Company has. The larger the Company's overall resources, the larger The Dimensions of the Business, and the more able it is to pay off future obligations in order to keep the business out of financial trouble *conditions*. Companies that have large total assets tend to experience *smaller financial distress conditions* (Suryani Putri & NR, 2020). Based on the relationship of signal theory with Company Size, the higher the assets, the better the Company and avoid financial distress. The Company gives a positive signal for creditors and investors to make credit and investments in the Company because it is considered good. Thus, Financial difficulty is negatively impacted by The business's size. This is consistent with studies conducted by (Purwaningsih & Safitri, 2022), (Setyowati & Sari Nanda, 2019), (Puspitawati, Rinny, 2023), and (Pancawitri & Dillak, 2022). Company Size negatively affects *Financial Distress*.

H5: Company Size affects *Financial Distress* negatively

Frame of Mind

Comment [A17]: For Each Review: Kindly Mention Methodology, Where research was done, the findings and the GAPS that your study intends to fill.

Comment [A18]: To Read: Effect of operating Efficiency on Financial Distress

REVIEW AS ADVISED ABOVE!

Comment [A19]: Effect of Firm Size on Financial Distress

REVIEW previous research AS ADVISED ABOVE!

Comment [A20]: THIS IS CALLED: CONCEPTUAL FRAMEWORK

Based on the description above, it can be identified that yields a return on assets, *Debt-to-equity ratio*, *current ratio*, *total asset turnover*, and Company Size are independent variables. This study affects *financial distress* as a dependent variable, reflected in the framework in the table below.

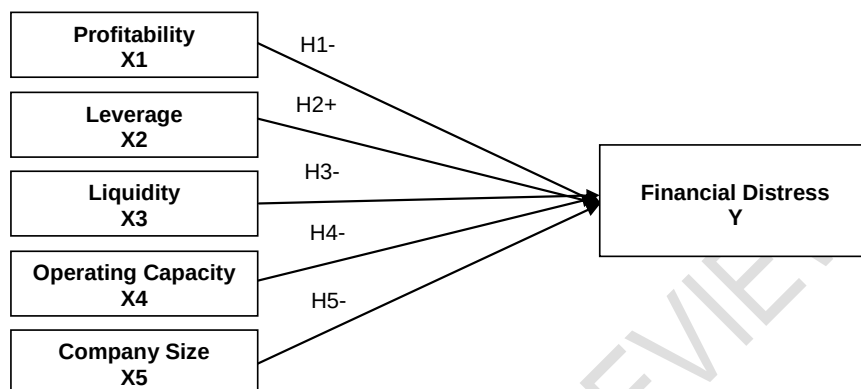


Figure 1. Frame of Mind

Comment [A21]: Conceptual Framework
Please Indicate the Proxy Measurement under each Variable in the Conceptual framework
e.g PROFITABILITY (Return on ASSETS (ROA))

Being a binary Variable: Kindly Indicate How you will Measure Financial distress in your Model
E.g : distressed =1 Not Distressed =0
Perhaps you may have Considered Compnay Size to be your INTERACTING (MODERATOR) Variable

Comment [A22]: Conceptual Framework

2. MATERIAL AND METHODS

With a population of 37 logistics and transportation businesses listed on the Indonesia Stock Exchange (IDX) between 2018 and 2022, this kind of research employs a quantitative methodology. The sample of this study is Transportation and logistics Companies selected through purposive sampling techniques. This research makes use of five one dependent variable and one set of independent factors. The variables that are independent are Profitability, Leverage, Liquidity, Operating Capacity, and Company Size. At the same time, the dependent Variable is *Financial Distress*. The dependent variable is shown in this the form of a *dummy variable* with a *criterion value of 1 for the Company's Financial distress* and a value of 0 for the Company's Financial distress. The list of sample selection criteria used is as follows :

1. Logistics and transportation firms that have been and are still listed between 2018 and 2022 on the Indonesia Stock Exchange (IDX).
2. A transportation and logistics company that publishes the Company's financial statements for 2018-2022.
3. Companies that experienced positive operating net profit for two consecutive years during the 2018-2022 research period.
4. Companies that submit complete data for the 2018-2022 observation period are related to Profitability, Leverage, Liquidity, operating capacity, and company size variables.
5. The Company uses rupiah (Rp) in its financial statements.

2.1 Dependent Variable

The variable that is reliant in Financial distress is the subject of this investigation or financial difficulty measured using the *Z-Score analysis method*. *Z-Score* is a multivariable equation used by Altman in predicting bankruptcy rates (Prihadi, 2019). According to (Prihadi, 2019), The following equation is applied:

$$Z\text{-Score} = 6,56X1 + 3,26X2 + 6,72x3 + 1,05X4$$

2.2 Independent Variable

The profitability ratio indicates how profitable the company can turn a profit. Where a business's earnings serves as one measure of its performance is performing. Profitability encompasses all of the company's expenses and income by using assets and liabilities in a period. Investors use Profitability to predict how much value is used for their shares (Opitalia & Zulman, 2019). Profitability Ratio, according to (Hanafi & Halim, 2016) can be proxied by *Return on Assets* (ROA) with the following formula:

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total assets}}$$

Leverage ratio describes the amount of debt used to finance a company's assets. This ratio evaluates a business's capacity to fulfill all both immediate and long-term obligations (Suryani Putri & NR, 2020). A good company can be seen from the quantity of money more than its Debt in financing or funding the Company's assets and business activities. According to (Prihadi, 2019) calculated using formulas :

$$\text{Debt to Equity Ratio} = \frac{\text{Total liability}}{\text{Total Equitas}}$$

The ratio of liquidity demonstrates the company's capacity to fulfill its immediate fund needs with present assets that the company possesses. The high Availability of liquid assets of the Company suggests that the Company able to meet immediate responsibilities, so creditors do not hesitate to provide loans (Suryani Putri & NR, 2020). The study's liquidity ratio was measured using *The Ratio of Current* (Prihadi, 2019) :

$$\text{Current Ratio} = \frac{\text{Aset Lancar}}{\text{Liabilitas Lancar}}$$

Operating capacity, also referred to as the turnover ratio, is a ratio that is used to assess how well a company is able to manage its assets. Utilizing these resources for day-to-day operations will boost output for the business. (Pratiwi, 2020). When a corporation leverages its assets to produce sales, its operational performance will suffer. Low total asset turnover means the Company has an excess of total assets where the total assets have not been utilized optimally to create sales (Prihadi, 2019). The Operating Capacity *ratio* in this study was measured using TATO (Prihadi, 2019) :

$$\text{Total Asset Turnover} = \frac{\text{Penjualan}}{\text{Total Aset}}$$

Scales are used to determine company size that can describe the state of the Business, both small and large (Nilasari Intan, 2021). The size of the company increases with its overall assets, and the more able it is to pay off future obligations in order to keep the business out of financial trouble *conditions* (Suryani Putri & NR, 2020). The Company's Size in This Study, According to (Sholikhah & Rokhmania, 2022), is calculated using the formula:

$$\text{Company Size} = \text{Ln.Total Assets}$$

3. RESULTS AND DISCUSSION

Table 1 (which summarizes data from 63 samples over this study's five years of observation) was created through descriptive statistical examination. Based on the results of the analysis, it is known that the profitability ratio of the first Variable has an average value of 0.066297 and a standard deviation of 0.069144, meaning that 0.066297 units of current assets support each unit of current Debt. The variable Profitability is heterogeneous, as seen from the normal standard deviation value.

The second independent Variable, leverage, isvariable and has a mean value of 1.059471 with a standard deviation of 1.372711.

Based on the descriptive analysis table, the third independent Variable, Liquidity, has an average value of 2.380390 as well as a standard deviation of 2.455035. The liquidity variable varies because the value of the standard deviation is greater than the average.

The fourth independent Variable, Operating Capacity, has a standard deviation of 0.662877 with an average value of 0.815485. The Operating Capacity variable is homogeneous because the standard deviation is lower more than the mean.

The last independent Variable is the Size of the Company, which has an average value of 26.95792 and a standard revision of 1.703849. The Company Size variable is homogeneous since the The value of the standard deviation is lower than the mean.

Tabel 1. Descriptive statistic analysis result

	ROA	DER	CR	TATO	CS
Mean	0.066297	1.059471	2.380390	0.815485	26.95792
Median	0.036826	0.441339	1.519130	0.580042	26.80439
Maximum	0.321040	6.403053	12.03646	2.742542	30.92424
Minimum	0.001322	0.024070	0.218537	0.163238	23.30529
Std. Dev.	0.069144	1.372711	2.455035	0.662877	1.703849
Skewness	1.445391	2.326915	2.127810	1.346930	0.498251
Kurtosis	4.835841	8.631273	7.887838	3.976093	2.682101
Jarque-Bera	30.78321	140.0946	110.2533	21.55030	2.871951
Probability	0.000000	0.000000	0.000000	0.000021	0.237883
Sum	4.176724	66.74664	149.9646	51.37553	1698.349
Sum Sq. Dev.	0.296416	116.8288	373.6862	27.24313	179.9922
Observations	63	63	63	63	63

Source : Data processed (EViews 13)

3.1 EVALUATE MODEL ELIGIBILITY

The Hosmer and Lemeshow goodness of fit value, with a probability Chi-square of 0.9962, is displayed in the above table. In light of this, One could argue that the model is accepted if it is supported by observational information and can predict the value of observation, and if the statistical values of Holmes and Lemeshow's goodness of fit are 1.2468 and the statistical value of HL goodness of fit are greater than 0.05.

Table 2. Model Feasibility Results
(Hosmer and Lemeshow's Goodness of fit)

H-L Statistic	1.2468	Prob. Chi-Sq(8)	0.9962
Andrews Statistic	31.4638	Prob. Chi-Sq(10)	0.0005

Source : Data processed (EViews 13)

3.2 TESTING OF THE REGRESSION COEFFICIENT OF DETERMINATION (R2)

The test result for the coefficient of determination (McFadden R-squared) this study's 0.785022, as shown in the above table This indicates that the dependent variable in this study, financial distress, is influenced by the independent variables (ROA, DER, CR, TATO, and Total Assets) in the model by 78.5022%, with the dependent variable having the remaining 21.4978% influence. not included in this analysis and were instead explained by other variables.

Table 3. Coefficient of Determination (R2)

McFadden R-squared	0.785022	Mean dependent var	0.698413
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Source : Data processed (EViews 13)

3.3 ANALYSIS OF LOGISTIC REGRESSION

Testing if the independent (independent) variable can forecast the likelihood that the dependent (bound) variable will occur is done using logistic regression.

It is possible to deduce that the output results above yield the following logit based on the z-Statistic test findings:

$$\ln \frac{FD}{1-FD} = \alpha + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 + \beta X_5 + e$$

$$\ln \frac{FD}{1-FD} = 45.44264 + 43.19423 X_1 - 3.857948 X_2 + 0.798037 X_3 - 1.567896 X_4 - 1.566118 X_5$$

Table 4. Z-statistic Test Results

Variable	Coefficient	Std. Error	z-Statistic	Prob.	Information
C	45.44264	22.39788	2.028882	0.04	
ROA	43.19423	19.57808	2.206254	0.03	Rejected
DER	-3.857948	2.145202	-1.798408	0.07	Rejected
CR	0.798037	1.485435	0.537241	0.60	Rejected
TATO	-1.567896	1.683664	-0.931241	0.35	Rejected
CS	-1.566118	0.762678	-2.053444	0.04	Accepted

Source : Data processed (EViews 13)

The Effect of Profitability on Financial distress

Considering the outcomes of the z-statistic test, it's established that the current ratio has a probability of z-statistic of 2.206254, which means 2.206254 is smaller than α (0.05) with a positive regression coefficient of 43.19423. So, this shows that ROA has a significant positive effect on financial distress, Thus H1 is rejected.

This demonstrates that a company's high value of return on assets can indicate that it can make money through investments and asset sales, which can lead to more effective and

Comment [A23]: P-value is greater greater than 0.05
Verdict: FAIL To REJECT the NULL and conclude that there is no statistically significant relationship between CR (Liquidity) and Distress

Comment [A24]:

Comment [A25]: P-value is greater greater than 0.05
Verdict: FAIL To REJECT the NULL and conclude that there is no statistically significant relationship between TATO and Distress

Comment [A26]: Since p-value is less than 0.05 WE REJECT Null to conclude that there is negative significant relationship between CS and Distress.

Comment [A27]: RECALL: if P value is less than 0.05 we Reject null hypotheses to conclude existence of a negative or positive relationship.
In your Case:-
PROFITABILITY: ROA has a P-value of 0.03 : we reject null to conclude that profitability has positive effect on Distress
LEVERAGE (DER) has a P-value of 0.07 which is greater than 0.05 We fail to reject null and conclude that Leverage does not significantly affect Distress
LIQUIDITY (CR) whose P-value is 0.60 is also greater than 0.05 we also FAIL to reject Null hypothesis AND CONCLUDE THAT THERE IS NO statistically significant relationship between liquidity and distress.

efficient asset management that eventually lowers costs for the company and allows it to save money and have enough cash on hand for ongoing operations. On the other hand, a lower return on assets indicates that a company is insufficiently profitable from its investments and sales, which increases the likelihood of financial difficulty.

The results of this study are in line with research conducted by (Susanti et al., 2020), (Sitorus et al., 2022), (Ihvan et al., 2022), (Arrum & Wahyono, 2021), (Hakim et al., 2020), (Puspitawati, Rinny, 2023) and (Stepani & Nugroho, 2023) *Financial distress is positively impacted by profitability.*

The Effect of Leverage on Financial Distress

The debt-to-equity ratio has a probability of 1.798408, which indicates that it is bigger than α (0.05) based on the z-statistic test results. Thus, H2 is rejected because this demonstrates that equity debt has no effect on financial distress.

Leverage shows the amount of debt burden that must be borne by the Business in order to match the assets of the company. Suppose a company has a large enough Debt (liabilities) but earns a greater profit plus current assets. In that case, the funds are able to cover the Company's liabilities so that the event does not have a direct effect on *financial distress*.

The results of this study are in line with research conducted by (Purwaningsih & Safitri, 2022), (Sitorus et al., 2022), (Muzharoatiningsih, M & Hartono, 2022), (Permatasari, 2022) and (Susilowati et al., 2019) *Leverage does not affect financial distress.*

Comment [A28]: Leverage Should have either a positive or negative effect on Distress

The Effect of Liquidity on Financial Distress

Considering the outcomes of the z-statistic test, it's established that the Current ratio has a probability of z-statistic of 0.537241, which means 0.537241 is greater than α (0.05). So this shows that the *Current ratio* does not affect *financial distress*, thus H3 is rejected.

This result does not fit the hypothesis and is not in line with the *signaling theory*, where the Company cannot signal to investors the Liquidity owned by the Company. The amount of the Company's liquidity value is independent of investors who want to invest their capital. Liquidity does not affect *financial distress* because Liquidity is useful for comparing current activity and Debt. The higher the liquidity value, the more the Company can meet its current loss to suppress financial distress.

The results of this study are in line with research conducted by (Antoniawati & Purwohandoko, 2022), (Sitorus et al., 2022), (Muzharoatiningsih, M & Hartono, 2022), (Permatasari, 2022) and (Panjaitan et al., 2022) Financial hardship is unaffected by liquidity.

The Effect of Operating Capacity on Financial Distress

Considering the outcomes of the z-statistic test, it is known that Total Asset Turnover has a probability of z-statistic of 0.931241, which means 0.931241 is greater than α (0.05). So this shows that *total asset turnover* has an effect on *financial distress*, thus H4 is rejected.

This indicates that the level of activity cannot be used as a reference to predict whether a company will face financial difficulties. The high value reflects the Company's high turnover, so the Company is expected to generate a lot of profit, thus avoiding financial difficulties for the Company. However, high sales do not necessarily mean high profits. Along with the increase in sales, the amount of the Company's receivables also increases. Hence, the

possibility of bad debts also increases, which can be detrimental to the Company because a large amount of working capital is stored in the Company's receivables. In addition, an increase in sales and a decrease in total assets indicates an increase in profits, which also increases the ratio of total asset turnover and minimizes the possibility of *financial distress*.

The findings of this investigation are consistent with studies carried by (Maronrong et al., 2022), (Santika, 2023), (Ramadhani & Nisa, 2019), and (Permatasari, 2022). Operating Capacity has no impact on financial hardship.

The Effect of Company Size on Financial Distress

Considering the outcomes of the z-statistic test, it is known that the current ratio has a probability of z-statistic of 2.053444, which means 2.053444 is smaller than α (0.05) with a negative regression coefficient of -1.566118. So this shows that the Dimensions of the Company possesses a substantial negative impact on *financial distress*, thus H1 is accepted.

Larger companies tend to have larger assets because their operating finance comes from their assets rather than debt. This results in a solid capital structure for the larger company. Big businesses with significant assets have a variety of effects, including increased profitability. In this study, financial distress is inversely correlated with the company's size. This is because the company has to develop significantly, be able to pay off both short- and long-term debt, and be able to prevent financial distress.

The findings of this investigation are consistent with studies carried by (Purwaningsih & Safitri, 2022), (Setyowati & Sari Nanda, 2019), (Puspitawati, 2023), and (Pancawitri & Dillak, 2022) Company Size negatively affects *Financial Distress*.

4. CONCLUSION

In general, the purpose of this research is to determine the influence of Financial ratios and corporate governance in relation to financial distress of transportation and logistics industry businesses that are listed with the IDX, the Indonesian Stock Exchange for the duration 2018 to 2022. In light of this study, it is known that Profitability positively influences the state of financial hardship. Specifically, the lower the number of Profitability obtained by a company, the smaller the Capacity of issuers to generate profits from the assets owned. *Leverage* does not affect *financial distress*. In this case, it means that if a company has a large enough Debt (liabilities) but earns greater profits plus assets, it can cover the Company's liabilities. Liquidity has no bearing on financial hardship. In other words, the Company's ability to cover current liabilities guarantees the level of payment of current obligations so that the Business is safe from *financial distress*. *Operating Capacity* has no bearing on financial hardship. In this case, it means that the degree of activity cannot be used as a reference to predict whether a company will face financial difficulties. The Size of the Company negatively affects *financial distress*. *This means* that a large company measured by large assets has many consequences, such as the Company being able to create greater profits.

For the Company, the settlement that can be done is to be disciplined in fulfilling current duties and maximizing debt capacity to avoid *financial distress*. For investors, this research can be taken into account when choosing investments. This research has several limitations, including the fact that not all companies have complete variables. Therefore, it is expected that further research will extend beyond issuers of transportation and logistics sector

Comment [A29]: Kindly use the probability values (p-value) to establish whether to REJECT or FAIL TO REJECT null hypothesis.

NOTE:

1. IF the p-value is less than or equal to 0.05 we REJECT NULL hypothesis and conclude that the INDEPENDENT VARIABLE statistically & significantly affect DEPENDENT VARIABLE (positively or negatively –based on your coefficient signs)
2. IF p-value is greater than 0.05, then YOU FAIL TO REJECT THE NULL and conclude that THERE is No Statistically significant association/relationship between your Independent and dependent variable.

Comment [A30]: Proof read and space your Work

Comment [A31]: Influence of : mention all your independent variables NOT the ratios used to proxy the variables

Comment [A32]: Purpose was : To establish Effect of Profitability, Leverage, Liquidity,and firm size on financial distress.
DELETE Corporate governance as it was not part of the study.

services, expand the year of observation, and use variables outside the research, such as intellectual capital variables and the Company's age.

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