ABSTRACT

This study aims to determine the determination of profitability, liquidity, leverage, and company size on *financial* distress . The population *in* this study was 48 out of 12 transportation sector companies listed on the Indonesia Stock Exchange in 2020-2023 . This study is a quantitative study with a sample of 44 obtained through *purposive sampling method* . The analysis method used is multiple linear regression analysis with SPSS 25. The results of the study partially indicate that the profitability and company size variables have a significant positive effect on *financial distress* , while the liquidity and leverage variables have a negative and significant effect on *financial distress* . Simultaneously, the variables of profitability, liquidity, leverage and company size in this study have an effect on *the financial distress* of transportation companies.

Keywords: profitability, liquidity, *leverage,* firm size, *financial distress*

INTRODUCTION

Indonesia is a country with a population that continues to increase, so that it continues to cause problems caused by the lack of infrastructure support. Economic growth is measured by the per capita income of the region. This increasing population growth forces a region or country to provide transportation (Rendy, 2018) . Transportation plays an important role in people's lives for mobility and transportation of goods to various regions, which drives the transportation sector to become one of the supporters of human activities and business distribution activities of companies. Therefore, companies must continue to develop and maintain their performance in order to become healthy companies (Khasanah, 2021).

Good company performance means good financial condition, conversely if the company performance is not good then the financial condition will decline. The worse the company performance , the greater the possibility of bankruptcy. Companies that experience bankruptcy can be said to be experiencing *financial distress. Financial distress* is a stage of financial decline that occurs before bankruptcy or liquidation. (Nurdiwaty and Zaman, 2021) .

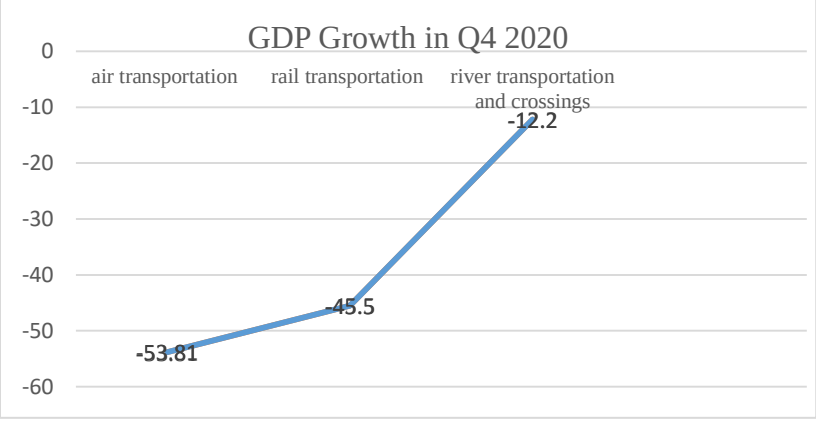

Figure 1 Transportation Sector GDP Growth Rate in Q4 2020

Based on Figure 1, the Central Statistics Agency (BPS) noted that the growth rate of Gross Domestic Product (GDP) in the transportation sector experienced the deepest contraction with minus 15.04% in 2020, even though the logistics sector grew positively by 10.51% in 2019. Air and rail are transportation that experienced a very significant decline. In 2020, air transportation experienced a decline of 53.06% and rail transportation experienced a decline of 42.34%. In addition, several other transportation companies, both land, sea, and air, also experienced a decline (bps.go.id, 2020).

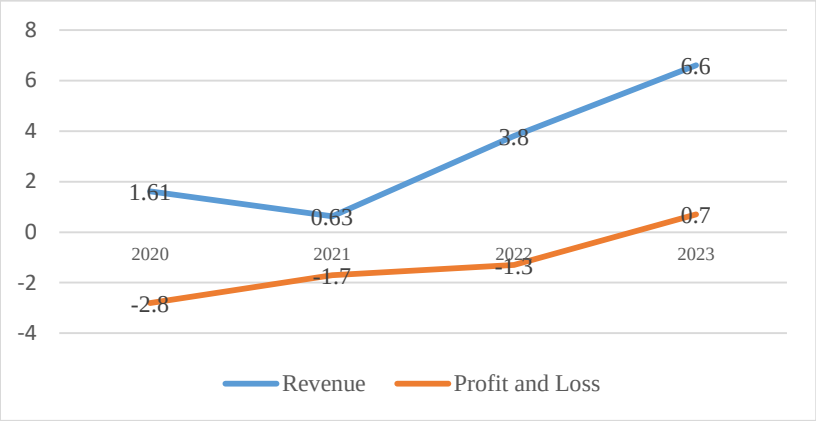

Figure 1 Financial Performance of PT Air Asia Tbk 2019 - 2022

Based on Figure 2, PT Air Asia Tbk is one of the companies that experienced a decline in revenue. PT Air Asia Tbk experienced a decline in revenue throughout 2020. The financial report as of December 31, 2020 recorded operating revenue of IDR 1.61 trillion. This figure fell by 75.99% compared to 2019 revenue of IDR 6.7 trillion. PT Air Asia Tbk recorded a loss of IDR 2.8 billion throughout 2020. In contrast to 2019 which recorded a profit of IDR 113.94 million (Widyastuti, 2021) .

Research related to factors that influence *financial distress* has been conducted before. One of the factors that influence *financial distress* is profitability. Profitability is a ratio used to measure a company's ability to generate profits from its normal business activities. The higher the profitability, the less likely *financial distress is*, because in this condition the company is able to generate high profits from operating activities. So, with large company profits, it will reduce the use of debt which will have an impact on reducing the potential *for financial distress* experienced by the company (Saputri and Asrori, 2019).

Liquidity is a ratio used to measure a company's ability to meet short-term financial obligations in the form of short-term debts. In general, a good liquidity ratio is one that has a value exceeding its current debt (Hutabrat, 2020) . If the company has a high level of liquidity, then the company is less likely to experience *financial distress* . This indicates that the company is in a liquid condition, meaning that with a high level of liquidity, the company will be able to meet its operational funds and be able to pay off its short-term obligations.

The third factor that affects *financial distress* is *leverage* . Kasmir (2017) states that the *leverage ratio* is a ratio used to measure the extent to which a company's assets are financed by debt. High leverage means that the company is highly dependent on external parties. Conversely, low *leverage means that the company is able to meet its needs with the assets it has.*

Another factor that affects *financial distress* is the size of the company. The size of the company describes how much assets are owned. The bigger the company means the more assets are owned so the possibility of *financial distress* is smaller. With a large total asset, it is expected that the company will be able to pay its obligations in the future. Company size is also a benchmark for potential investors in making decisions to invest their capital in the company (Jaya, 2020) .

This research is a development of research conducted by Muntahanah *et al* ., (2021) which examined the Effect of Profitability, *Leverage* , and Liquidity on *Financial Distress.* in *Consumer Goods Companies* at BEI. The focus of this study is on the company size variable which has been proven to have an effect in other studies.

METHODS, DATA, AND ANALYSIS

This type of research uses a quantitative approach. According to Sugiyono (2019) quantitative research is a research method based on the philosophy of positivism, used to research certain populations or samples, data from research in the form of numbers measured using quantitative / statistical data analysis, with the aim of testing the established hypothesis. Thus, with the quantitative method, the significance of the relationship between variables will be obtained.

The population used in this study is transportation companies listed on the Indonesia Stock Exchange (IDX) during the 2020-2023 period. totaling 12 companies. Sampling in this study used *purposive sampling technique.* From 12 companies that became the population, a sample of 11 companies was obtained that met the criteria for the research sample. The data sources used in this study were books, journals, news and publications of annual reports on transportation companies listed on the Indonesia Stock Exchange (IDX). Data collection techniques in this study were literature studies and documentation studies.

RESULTS AND DISCUSSION

Descriptive Statistical Analysis Results

Statistical calculations in the study used descriptive statistics by comparing the minimum value, maximum value, average value and standard deviation of the sample. Data processing was carried out with the help of the SPSS version 25 program. The results of the descriptive statistical test in the study can be seen in table 1 below:

Table 1 Results of Descriptive Statistical Tests

	N	Minimum	Maximum	Mean	Std. Deviation
Profitability	44	-0.580	2,072	-0.010	0.371
Liquidity	44	0.025	7,684	1.174	1,841
Leverage	44	0.145	3.139	0.837	0.661
Company Size	44	24.955	32,656	28,172	2.213
Financial Distress	44	-50,822	7,561	-4.278	12,783

Valid N (listwise)	44				

Source: Processed Secondary Data, 2024

Based on the results of descriptive statistical testing in table 1, there are 44 samples of transportation companies in 2020-2023. The profitability variable measured using *Return on Asset* (ROA) has a minimum value of -0.580 experienced by PT Garuda Indonesia Tbk (GIAA) in 2021. The maximum value is 2.072 at PT Express Transindo Utama Tbk (TAXI) in 2021. While the average value of profitability is -0.010 and the standard deviation value is greater, namely 0.371 . The standard deviation value that is greater than the average value indicates that the data distribution is relatively large or the data deviation is wide and the data is relatively heterogeneous.

Liquidity variables are measured using *the Current Ratio* (CR) with a minimum value of 0.025 at PT AirAsia Indonesia Tbk (CMPP) in 2021. The maximum value is 7,684 at PT Express Transindo Utama Tbk (TAXI) in 2022. While the average liquidity value is 1.17 4 and the standard deviation value is 1.841 . The standard deviation value is more than the average value, this indicates a large data distribution or data deviation can be said to be not good and the data is relatively heterogeneous.

leverage variable is measured using *the Debt to Asset Ratio* (DAR) with a minimum value of 0.145 at PT Eka Sari Lorena Transport Tbk (LRNA) in 2023. The maximum value is 3.139 at PT Express Transindo Utama Tbk (TAXI) in 2020. While the average *leverage value* is 0.837 and the standard deviation value is 0.661 . The standard deviation value is less than the average value, this indicates a small data distribution or the distribution of the magnitude of the *leverage variable data* is around the average and the data is relatively homogeneous.

The company size variable is measured using Ln (Total Asset) with a minimum value of 24,955 at PT Express Transindo Utama Tbk (TAXI) in 2023. The maximum value is 32,656 at PT Garuda Indonesia Tbk (GIAA) in 2020. While the average value of company size is 28,172 and the standard deviation value is 2,213 . The standard deviation value is less than the average value, this indicates a small data distribution or the distribution of the magnitude of the company size variable data is around the average and the data is relatively homogeneous.

financial distress variable has a minimum value of -50,822 at PT Express Transindo Utama Tbk (TAXI) in 2023. The maximum value is 7,561 at PT Eka Sari Lorena Transport Tbk (LRNA) in 2023. While the average value of *financial distress* is -4,278 and the standard deviation value is 12,783 . The standard deviation value is more than the average value, this indicates a large data distribution or data deviation can be said to be not good and the data is relatively heterogeneous.

Classical Assumption Test Results

Normality Test

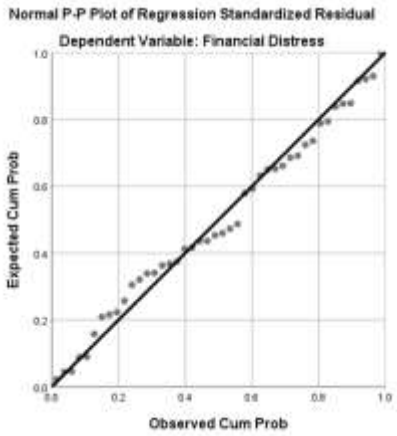

Figure 2 *P-Plot* Graph

Figure 1 shows the graph of the results of the normality test using *P-Plot producing plotting* data (dots) spread around the diagonal line and following the direction of the diagonal line. So it can be concluded that the regression model meets the assumption of normality because the data is normally distributed. In addition to using the *P-Plot graph, this study also uses the One-Sample Kolmogorov-Smirnov* test to avoid any misperceptions from reading the graph.

Table 2 Results of the *One-Sample Kolmogorov-Smirnov Test*

		Unstandardized Residual
N		44
Normal Parameters [a,b]	Mean	0.0000000
	Std. Deviation	4.93999866
Most Extreme Differences	Absolute	0.082
	Positive	0.082
	Negative	-0.068
Test Statistics		0.082
Asymp. Sig. (2-tailed)		0.200 [c,d]

Source : Processed Secondary Data , 2024

Based on table 4.3, it is known that the normality test uses *One-Sample Kolmogorov-Smirnov* (KS) produced a significance value of 0.200. Thus it can be concluded that the residual data in the study > 0.05, which indicates that the data is normally distributed.

Multicollinearity Test

Table 3 Multicollinearity Test Results

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Profitability	0.768	1.303

	Liquidity	0.633	1,581
	Leverage	0.749	1,335
	Company Size	0.846	1.183

Source: Processed Secondary Data, 2024

Based on table 3, it shows that the profitability variable has a *tolerance value* 0.768 > 0.10 and VIF value 1.303 < 10. The liquidity variable has a *tolerance value* 0.633 > 0.10 and VIF value 1.581 < 10. The *leverage variable* has a *tolerance value* 0.749 > 0.10 and VIF value 1.335 < 10. And the company size variable has a *tolerance value* 0.846 > 0.01 and VIF value 1.183 < 10. From each variable, it is produced that the *tolerance value* ≥ 0.10 and VIF value < 10, so it can be concluded that there is no multicollinearity in the regression model.

Heteroscedasticity Test

Table 4 Heteroscedasticity Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11,382	6,571		1,732	0.091
	Profitability	-1.195	1,447	-0.141	-0.825	0.414
	Liquidity	0.456	0.321	0.268	1,420	0.164
	Leverage	0.917	0.822	0.193	1.115	0.272
	Company Size	-0.317	0.231	-0.224	-1,370	0.178

Source: Processed Secondary Data, 2024

Based on table 4 shows that the significance value of the profitability variable is 0.414> 0.05. The liquidity variable has a significance value of 0.164 > 0.05. The *leverage variable* has a significance value of 0.272 > 0.05. And the company size variable has a significance value of 0.178 > 0.05. Based on these results, the significance value of each independent variable is more than 0.05, so it can be concluded that there is no heteroscedasticity symptom in the regression model.

Autocorrelation Test

Table 5 Autocorrelation Test Results

Model	Durbin-Watson
1	0.966

Source: Processed Secondary Data, 2024

Based on table 4.6, it can be seen that the Durbin-Watson value obtained is 0.9066. The Durbin-Watson value when compared using the Durbin-Watson table with a significance level of 0.05 with a sample size of 44 and 4 independent variables, the dL value is 1.3263 and the dU value is 1.7200. Based on the values obtained, the decision criteria for the Durbin-Watson test are 0 <d <dL with a value of 0 <0.9066 <1.3263, which indicates that there is no positive autocorrelation in the regression model.

Multiple Linear Regression Analysis Results

Table 6 Results of Multiple Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-35,482	11,050		-3.211	0.003
	Profitability	6.998	2.434	0.203	2,876	0.007
	Liquidity	-6.381	0.540	-0.919	-11,810	0.000
	Leverage	-13,555	1,383	-0.701	-9,801	0.000
	Company Size	1,779	0.389	0.308	4,577	0.000

Source: Processed Secondary Data, 2024

Based on the regression equation above, it can be interpreted as follows:

1. The constant coefficient is -35.482, which shows that if the independent variable is considered non-existent, it will increase *financial distress* by -35.482.
2. The value of profitability is 6.998 which shows a positive relationship direction. A positive sign on profitability has an influence in the same direction as *financial distress* , namely if profitability increases by 1% then *financial distress* will increase by 6,998 units. Likewise, if profitability decreases, *financial distress* will also decrease.
3. The value of Liquidity is -6,381 which shows the direction of the negative relationship between Liquidity and financial *distress* . This means that if the Liquidity variable increases by one unit, financial *distress* will decrease by -6,381 units . Likewise, conversely, if liquidity decreases, *financial distress* will increase.
4. The value of *leverage* is -13.555 which shows the direction of the negative relationship between *leverage* and *financial distress* . This means that if the *leverage variable* increases by one unit, then *financial distress* will decrease by -13,555 units. Likewise, if *leverage* decreases, *financial distress* will increase.
5. The value of company size is 1.779 which indicates a positive relationship. A positive sign on company size has a direction of influence on *financial distress* , that is, if the company size increases by 1%, *financial distress* will increase by 1.779 units . Likewise, if the company size decreases, *financial distress* will also decrease.

Model Feasibility Test Results

Determination Coefficient Test (R^2)

Table 7 Results of Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.922 [a]	0.851	0.835	5.187149

Source: Processed Secondary Data, 2024

Based on table 7, the results of the determination coefficient test show that the determination coefficient value (*R Square*) is 0.851. These results indicate that the ability of the independent variables, namely profitability, liquidity, *leverage* , and company size to the dependent variable, namely *financial distress,* is 85.1% and the remaining 14.9% is explained by other variables not explained in this study.

F Test

Table 8 F test results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5977.000	4	1494.250	55,535	0.000 [b]
	Residual	1049.354	39	26,907		
	Total	7026.354	43			

Source: Processed Secondary Data, 2024

$_{calculated}$ F value is 55.535> F $_{table\ value}$ 2.61, these results indicate that the independent variables, namely profitability, liquidity, *leverage* , and company size simultaneously affect the dependent variable, namely *financial distress* .

Hypothesis Testing (t-Test)

The effect of profitability on *financial distress*

The first hypothesis states that profitability has a negative effect on *financial distress* . The significance value is 0.007 <0.05 and the regression coefficient is 6.998, meaning that profitability has a positive effect on *financial distress* . A positive regression coefficient indicates a positive relationship between profitability variables and *financial distress* , meaning that the greater the value of the company's profitability, the higher the possibility of *financial distress* , so the first hypothesis in the study is rejected.

The effect of liquidity on *financial distress*

The second hypothesis states that liquidity has a negative effect on *financial distress* . The significance value is 0.000 <0.05 and the regression coefficient is -6.381 , meaning that the liquidity variable has a negative effect on *financial distress* . The negative regression coefficient indicates a negative relationship between liquidity and financial distress, meaning that the higher the company's liquidity value, the smaller the possibility of *financial distress,* so the second hypothesis is accepted.

The effect of leverage on *financial distress*

The third hypothesis states that *leverage* has a positive effect on *financial distress* . Based on table 4.7, it shows that the significance value is 0.000 <0.05 and the regression coefficient is -13.555 , meaning that the *leverage variable* has a negative effect on *financial distress.* The negative regression coefficient shows a negative relationship between *leverage* and *financial distress* , meaning that the higher the *leverage value* of the company, the smaller the possibility of *financial distress* , so the third hypothesis is rejected.

The effect of company size on *financial distress*

The fourth hypothesis states that company size has a negative effect on *financial distress* . Based on table 4.7, it shows that the significance value is 0.000 <0.05 and the regression coefficient is 1.779 , meaning that the company size variable has a positive effect on *financial distress* . A positive regression coefficient indicates a positive relationship between the company size variable and *financial distress* , meaning that the larger the size of a company, the higher the possibility of *financial distress* , so that the fourth hypothesis in the study is rejected.

CONCLUSION

Conclusion

After conducting research and hypothesis testing, the following conclusions can be drawn :

1. Profitability has a positive and significant effect on *financial distress* . *High* profitability indicates that the company is making a profit, but high operating costs can cause instability if the company is unable to manage costs efficiently.
2. Liquidity has a negative and significant effect on financial *distress. With high* liquidity , the company has a better ability to pay off its short-term obligations, thereby reducing the risk of experiencing financial distress.
3. *Leverage* has a negative and significant effect on *financial distress* . High *leverage is often associated with the risk of bankruptcy, in this context,* high *leverage can actually support asset purchases and increase company profits.*
4. size has a positive and significant effect on *financial distress* . Large companies tend to have a more complex organizational structure, with many divisions, so this can make the company more difficult to manage . resulting in *financial distress* .

Suggestion

Suggestions that researchers can provide regarding the research that has been carried out include:

1. For companies
   Companies are expected to pay more attention to financial reports, especially to factors that cause *financial distress* , because by doing so, they can find out what conditions are currently occurring in the company's finances so that undesirable things do not happen to the company.
2. For further research
   Further researchers can add research samples not only to companies in the transportation and logistics sector in the transportation sub-sector but can also use other sectors.

Limitations

Based on the research process, there are several limitations experienced and become factors that need to be considered to perfect further research because this study has shortcomings that need to be fixed. The limitation in this study is the number of samples used in the study is still limited, namely 44 samples.

REFERENCE

Rendy, Y. (2018). Analysis of Factors Affecting Demand for Online Motorcycle Taxis (Case Study on Go-Jek in Malang City) . *Thesis* . Brawijaya University.

Khasanah, SNU (2021). The Effect of Operating Capacity, Sales Growth, Cash Flow and Leverage on Financial Distress (Empirical Study of Transportation Sector Service Companies Listed on the Indonesia Stock Exchange in 2015-2020) . *Thesis* . University of Muhammadiyah Malang.

Nurdiwaty, D., and Zaman, B. (2021). Testing the Effect of Company Financial Ratios on Financial Distress. *Journal of Accounting Theory and Application Research (PETA)* , *6* (2), 150–167.

Widyastuti, RAY (2021). Pandemic, AirAsia's Revenue Plummets 75.99 Percent and Losses Reach IDR 2.8 Trillion . Accessed on December 17, 2022, from https://bisnis.tempo.co/read/1469424/pandemi-pendapatan-airasia-jeblok-7599-persen-dan-rugi-tembus-rp-28-triliun

Saputri, L., and Asori. (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.

Hutabrat, F. (2020). *Analysis of Company Financial Performance* . Banten: Desanta Muliavisitama.

Kasmir. (2017). *Customer Service Excellent: Theory and Practice* . Jakarta: PT Raja Grafindo Persada.

Jaya, S. (2020). The Effect of Company Size (Company Size) and Profitability (ROA) on Company Value (Firm Value) in Property and Real Estate Sub-Sector Companies on the Indonesia Stock Exchange (IDX). *Journal of Motivation Management* , *16* (1), 38–44.

Muntahanah, S., Huda, NN, & Wahyuningsih, ES (2021). Profitability, Leverage, and Liquidity Against Financial Distress in Consumer Goods Companies Listed on the Indonesia Stock Exchange for the 2015-2019 Period. *J-Mas (Journal of Management and Science)* , *6* (2), 311–314.

Sugiyono. (2019). *Quantitative and Qualitative Research Methodology and RdanD* . Bandung: Alfabeta.