The effect of financial ratio on financial distress during the covid-19 pandemic

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Article Info	ABSTRACT
	The purpose of this reserch is to determine and analyze the effect of the Current Ratio, Debt to Asset Ratio, Sales Growth and Total Asset Turnover simultaneously and partially on Financial Distress in the transportation sub-sector companies listed on the Indonesia Stock Exchange for the period of 2019-2020. The population of this study is the transportation sub-sector companies as many as 46 companies. The sampling method used purposive sampling, and the number of samples obtained are 33 companies. The type of the research is descriptive quantitative using logistic regression analysis method. The results show that the variables Current Ratio, Debt to Asset Ratio, Sales Growth, and Total Asset Turnover simultaneously affect Financial Distress in transportation sub-sector companies listed on the Indonesia Stock Exchange for the period of 2019-2020. Partially, Sales Growth have an effect, Current Ratio, Debt to Asset Ratio and Total Asset Turnover have no effect on Financial Distress in transportation sub-sector companies listed on the Indonesia Stock Exchange for period of 2019-2020.

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1. INTRODUCTION

The Covid-19 pandemic that occurred at the end of 2019 in Indonesia not only had an impact on the health crisis but also caused the economy to experience significant changes. In the structure of the national economy, one of the sectors most affected by the Covid-19 pandemic based on the survey results of the Central Statistics Agency (BPS) is the transportation sector, which is 90.34 percent (Bayu, 6 C.E.). In order to reduce the spread of Covid-19, the government implements social distancing or social restrictions. With the implementation of this policy, it affects the decline in transportation modes because it is related to reduced mobility of the community (Munawar et al., 2021)(Przybylowski et al., 2021) (Molloy et al., 2021) (Mendolia et al., 2021). This caused a plummet in revenue in most transportation companies and even posted losses on the financial statements (Munawar et al., 2021).

With the decline in the number of passengers, as well as decreased sales and revenue which are the source of the company's cash entry, this is feared to have an impact on the company's ability to meet its short-term obligations such as rental costs, maintenance costs, employee salaries and others (Nhamo et al., 2020). Based on this, an analysis of Financial Distress in this business sector is very necessary, in order to anticipate various bad possibilities that occur (Dirman, 2020) (Rahmah & Novianty, 2021) (Notteboom et al., 2021) (Notteboom et al., 2021).

Financial Distress is a condition of financial difficulties experienced by a company before experiencing bankruptcy or liquidation (Rahmah & Novianty, 2021) (Putri, 2021). A company can be

categorized as experiencing Financial Distress or financial difficulties if the company shows negative figures on operating profit, net profit and equity book value and the company merges (Idi & Borolla, 2021).

To detect financial difficulties / Financial Distress of a company can also be used financial ratio analysis. In this study, the Financial Distress of a company can be measured using several financial ratios, namely liquidity ratio, leverage ratio, activity ratio and sales growth (Batrancea, 2021) (Pandansari & Khasanah, 2020). The liquidity ratio is a ratio that shows the company's ability to meet its short-term obligations that must be met. The liquidity ratio in this study is proxied with the Current Ratio (Syarifah, 2021). Current Ratio is a ratio that shows the comparison between current assets and current debt. The higher the current ratio, the more it can suppress the occurrence of the company's Financial Distress condition (Zimon & Tarighi, 2021).

The leverage ratio is a ratio used to assess the extent to which a company is financed by using debt (Nugraha et al., 2020). If the company's financing uses too much debt, it will risk difficulties in repayment in the future. The higher the company's leverage, the higher the occurrence of Financial Distress conditions (Handriani et al., 2021) (Wu et al., 2020). Sales growth or commonly referred to as sales growth is a ratio to measure and inform sales developments in a company by looking at its sales growth (ENDRI et al., 2020) (Mahmutaj & Krasniqi, 2020). The company can be said to be good if sales (Sales Growth) produces a positive value, while sales (sales growth) that produces a negative value mainly occurs continuously indicating that the company can indicate the occurrence of Financial Distress (Handriani et al., 2021) (Ilyas et al., 2021) (Gennaro, 2021).

In this study, the ratio of activity is proxied to Total Asset Trunover, this ratio illustrates how effective the company is in using each rupiah of its assets against sales generated by the company. The higher the company's activity ratio, the farther away from financial distress because the company can take advantage of the use of its funding sources.

2. RESEARCH METHOD

This research uses a quantitative type of descriptive research. Quantitative descriptive method is a quantitative research in the form of description with numbers or numerical (statistical) where the research is related to the elaboration of statistical figures.

Poppulation and Samples

A sample is a portion of the number and characteristics possessed by that population, or a small part of the members of the population taken according to a certain procedure so that it can represent its population. The sampling technique in this study used purposive sampling technique. A sample determination technique with certain considerations or special slection (Siyoto & Sodik, 2015).

Data collection methods

The method of data collection used in this study was to use two methods:

a. Documentation Method

This method is carried out by collecting secondary data in the form of financial statements for 2019-2020 for the calculation of financial ratios and for the calculation of sales growth variables using data for 2018-2020 through the www.idx.co.id website and website of each company.

b. Library Method

This method is carried out by collecting theoretical information such as journals with ISSN, articles, and other reading sources related to the problem to be studied to obtain the theoretical foundation used in research.

3. RESULT AND DISCUSSIONS

Descriptive statistics.

Tabel 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Current Ratio	66	.035	8.300	1.47003	1.576056
Debt To Aset Ratio	66	.093	3.139	.63085	.563646

	N	Minimum	Maximum	Mean	Std. Deviation
Sales Growth	66	-.840	1.532	.00489	.384509
Total Asset Turnover	66	.077	2.815	.57980	.608566
Financial Distress	66	0	1	.48	.504
Valid N (listwise)	66				

Based on table 1, the average current ratio of transportation companies listed on the Indonesia Stock Exchange in 2019-2020 was 1.47003 while the standard deviation was 1.575056. The mean value lower than the standard deviation value means that the data deviation that occurs is high where the observation data is spread away from the average value and shows a lot of data variation. The minimum value of the Current Ratio variable is 0.035 in air asia tbk in 2020. And the maximum value of the Current Ratio variable is 8,300 contained in the company Tanah laut Tbk in 2020.

The average value of the Debt to Asset Ratio of transportation companies listed on the Indonesia Stock Exchange in 2019-2020 was 0.63085 while the standard deviation was 0.563636. The mean value higher than the standard deviation value means that the data deviation that occurs is low where the observation data clusters around or close to the average value and does not show much data variation. The minimum value of the Debt to Asset Ratio variable is 0.093 in the Putra Rajawali Kencana Tbk company in 2020. And the maximum value of the Debt to Asset Ratio variable is 3,139 contained in the company Express Transindo Utama Tbk in 2020.

The average sales growth value of transportation companies listed on the Indonesia Stock Exchange in 2019-2020 was 0.00489 while the standard deviation was 0.384509. The mean value lower than the standard deviation value means that the data deviation that occurs is high where the observation data is spread away from the average value and shows a lot of data variation. The minimum value of the Sales Growth variable is -0.840 found in the Trans Power Marine Tbk company in 2019. And the maximum value of the Sales Growth variable is 1,532 in the company Humpuss Intermoda Transportasi Tbk in 2019.

The average value of total assets turnover of transportation companies listed on the Indonesia Stock Exchange in 2019-2020 was 0.57980 while the standard deviation was 0.608566. The mean value lower than the standard deviation value means that the data deviation that occurs is high where the observation data is spread away from the average value and shows a lot of data variation. The minimum value of the Total Asset Turnover variable is 0.077 in the company Tanah Laut Tbk in 2020. And the maximum value of the Total Asset Turnover variable is 2,815 in the Zebra Nusantara Tbk company in 2019.

Financial Distress as measured by Earnings per Share shows the result that a minimum value of 0 is found in transportation companies that do not experience negative EPS for two consecutive years and a maximum value of 1 is found in transportation companies that experience negative EPS for two consecutive years. The mean value of Financial Distress is 0.48 with a standard deviation of 0.504.

Partial significance testing (t-Statistical Test).

The results of the partial test (t-statistical test) can be seen in table 3.2 as follows:

Table 2. Partial Significance Test Results (t-Statistical Test)

		B	S.E.	Wald	Df	Sig.	Exp(B)
	Current Ratio	-.335	.342	.961	1	.327	.715
	Debt to Asset Ratio	2.676	1.903	1.978	1	.160	14.523
Step 1[a]	Sales Growth	-4.070	1.640	6.160	1	.013	.017
	Total Asset Turnover	.415	.708	.343	1	.558	1.514
	Constant	-1.349	1.337	1.019	1	.313	.259

Based on table 2 of the calculated value in the variables Current Ratio, Debt to Asset Ratio and Total Asset Turnover < of the Ttabel value of 1.99962 and the probability value of > 0.05 which means that the variables Current Ratio, Debt to Asset Ratio and Total Asset Turnover have no significant effect on the Financial Distress of transportation companies listed on the Indonesia Stock Exchange which are sampled from the 2019-2020 period. Meanwhile, the calculated value in the Sales Growth variable > of the Ttabel value of 1.99962 and the probability value of < 0.05 means that the Sales Growth

variable affects the Financial Distress of transportation companies listed on the Indonesia Stock Exchange which is used as a sample from the 2019-2020 period.

Based on table 3, it can be seen that the results of the logistic regression equation formed as follows:

$$FD = -1.349 - 0.335\ CR + 2.676\ DAR - 4.070\ SG + 0.415\ TATO \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(1)$$

a. A constant value of -1,349 means that if the variables CR, DAR, SG, TATO are constant or zero, then the value of Financial distress is -1,349 units.
b. The value of the CR coefficient of - 0.335 means that that every increase in the CR variable by one unit, the value of Financial Distress will decrease by 0.335 units assuming that other variables besides CR are constant or zero
c. The value of the DAR coefficient of 2,676 means that every increase in the DAR variable by one unit, the value of Financial Distress will increase by 2,676 units assuming that other variables besides DAR are constant or zero
d. The value of the SG coefficient of – 4,070 means that every increase in the SG variable by one unit, the value of Financial Distress will decrease by 4,070 units assuming that other variables besides SG are constant or zero
e. The value of the TATO coefficient of 0.415 means that every increase in the TATO variable by one unit, the value of Financial Distress will increase by 0.415 assuming that other variables besides TATO are constant or zero.

Simultaneous significance testing (F-Statistical Test).

The results of the simultaneous test (F-statistical test) can be seen in table 3.3 as follows:

Table 3. Simultaneous Significance Test Results (F-Statistical Test)

		Chi-square	Df	Sig.
	Step	28.692	4	.000
Step 1	Block	28.692	4	.000
	Model	28.692	4	.000

Based on table 3.3, a calculated F value can be obtained greater than Ftabel (28.692 > 2.5108) with a significance level (0.000 < 0.05). So it can be concluded that the Current Ratio, Debt to Asset Ratio, Sales Growth, and Total Asset Turnover simultaneously affect Financial Distress.

Coefficient of determination (R^2)

The adjusted R2 results are shown in table 3.4 as follows:

Table 4. Coefficient of Determination (R2) Test Results

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	62.743[a]	.353	.470

Based on table 4 obtained from the results of regression analysis, it shows that the value of the coefficient of determination seen from Nagelkerke R Square is 0.470. This indicates that the ability of independent variables, namely Current Ratio, Debt to Asset Ratio, Sales Growth and Total Asset Turnover in explaining the dependent variables, namely Financial Distress, is only 47.0%. While the rest is explained by other variables outside of this research model, which is 53.0%.

Discussion.

Effect of current ratio on financial distress.

Based on the results of the wald test (t test) for the Current Ratio variable, it shows a calculated T value (0.961 < 1.99962) and a probability value greater than its significant level (0.327 > 0.05). So the first hypothesis (H1) which states that the Current Ratio affects Financial Distress in the analysis cannot be supported or rejected. This is calculated if in current assets there is an inventory account and accounts receivable that will be used to pay off the company's short-term liabilities, it takes a long time and varies from each company to convert its inventory and accounts receivable to cash. The results of this study are in line with previous research which stated that the Current Ratio had no effect on Financial Distress (Azalia & Rahayu, 2019) (Sulastri & Zannati, 2018)(Silalahi et al., 2018).

Effect of debt to asset ratio on financial distress.

Based on the results of the wald test (t test) for the Debt to Asset Ratio variable, it shows that the calculated T value is smaller than the Ttable (1.978 < 1.99962) and the probability value is greater than its significant level (0.160 > 0.05). So the second hypothesis (H2) which states that the Debt to Asset Ratio affects Financial Distress in the analysis cannot be supported or rejected. This is because it is not always the increase in debt will cause financial difficulties if the management is carried out properly, structured and appropriately. The results of this study are in line with research that states the Debt to Asset Ratio has no effect on Financial Distress (Villy Nursayidah, 2019).

Effect of sales growth on financial distress.

Based on the results of the wald test (t test) for the Sales Growth variable, it shows that the calculated T value is smaller than the Ttabel (6.160 > 1.99962) and the probability value is greater than its significant level (0.031 > 0.05). So the third hypothesis (H3) which states that Sales Growth affects Financial Distress in the analysis can be supported or accepted. This is because companies with positive sales growth (Sales Growth) give signs that the company's condition is good, while on the contrary, continuous negative sales growth can indicate financial distress. The results of this study are in line with research that states Sales Growth affects Financial Distress (Lubis & Patrisia, 2019).

Effect of total asset turnover on financial distress.

Based on the results of the wald test (t test) for the Total Asset Turnover variable, it shows that the calculated T-value is smaller than the Ttable (0.343 < 1.99962) and the probability value is greater than its significant level (0.558 > 0.05). The fourth hypothesis (H4) which states that the Total Assets Turnover Ratio affects Financial Distress in the analysis cannot be supported or rejected. This is because the higher the turnover of total assets, describing the more effective the company's total assets are in generating sales, but the costs incurred in generating sales also need to be considered. Companies that are unable to make cost efficiencies in every sale, the value of Total Asset Turnover large or small can experience Financial Distress. The results of this study are in line with research that states the Total Asset Turnover has no effect on Financial Distress (Sulastri & Zannati, 2018).

4. CONCLUSION

Based on the results of the research that has been carried out, the following conclusions can be drawn: a. Simultaneously, the results showed that the variables Current Ratio, Debt to Asset Ratio, Sales Growth, and Total Asset Turnover affected financial distress in transportation companies listed on the Indonesia Stock Exchange (IDX) in 2019-2020; b. Partially, the results showed that the Sales Growth variable affected financial distress in transportation companies listed on the Indonesia Stock Exchange (IDX) in 2019-2020. Meanwhile, the variables Current Ratio, Debt to Asset Ratio and Total Asset Turnover have no effect on Financial Distress in transportation companies listed on the Indonesia Stock Exchange (IDX) in 2019-2020; c. The result of the coefficient of determination obtained is 0.470 This indicates that the ability of independent variables, namely Current Ratio, Debt to Asset Ratio, Sales Growth and Total Asset Turnover in explaining the dependent variable, namely Financial Distress, is only 47.0%, while the remaining 53.0% is explained by other variables that were not studied in this study.

And the advice that can be given is as follows, based on the results of research that has been carried out, suggestions that can be given include: a. For Companies, For companies, the financial condition of a company must always be considered properly, especially performance in terms of sales growth. Sales Growth reflects management's performance in increasing the company's sales, the company with a positive level of sales indicates that the company can maintain its business continuity for a long time, thereby reducing the potential for the company to experience financial difficulties. If a company can increase sales growth, then the company will avoid Financial Distress; b. For Investors, In making investments, investors will pay attention to the company's performance and financial condition. Moreover, companies with low sales growth can cause the company to experience Financial Distress conditions which can signal creditors and potential investors to be careful in investing in the company and it will certainly be more difficult to gain the trust of potential investors. c. For the next

researcher, The next researcher who wants to conduct research on Financial Distress even though the objects used are different, can change or add independent variables in this study, for example by adding the variables Net Profit Margin (NPM) and Return On Asset (ROA).

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