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The Influence Of Financial Indicators In Predicting The Financial Distress Of Manufacturing Companies

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ABSTRACT

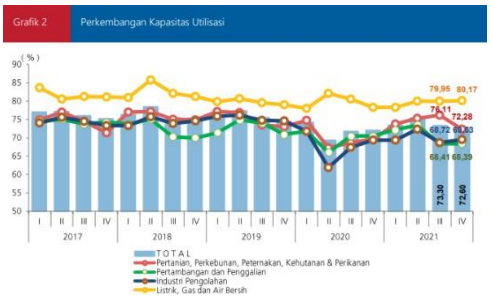
The purpose of this study was to examine financial indicator factors, namely financial ratios, namely liquidity ratios, profitability ratios, leverage ratios, activity ratios with interest rate proxies against financial distress. Financial Distress measurement uses the Altman Z-Score method. The test population in this study are manufacturing companies that are listed on the IDX and have negative profits for two years or more, are consistent in reporting financial statements ending December 31 for 2019-2021 and are reported using the rupiah currency. The selected data are 30 companies as research samples. The analysis carried out is multiple linear regression with SPSS version 25. The results of this study indicate that the financial ratios Current Ratio (CR), Return On Assets (ROA), Debt to Equity (DER), Total Asset Turnover (TATO) have a significant negative effect on financial distress.

Keywords :Financial Ratios, Financial Distress, Altman Z-Score

I. INTRODUCTION

Rapid economic development causes economic instability and affects company financial performance. Large market competition makes it difficult for companies to maintain their existence (Venusita 2019). When a company cannot survive market competition, it will have a negative impact on decreasing sales volume, lack of income, decreasing profits and ultimately the company being unable to pay its obligations (Vici Ardian et al., 2017). So companies need to implement strategies to generate profits for the company's survival so that it is maintained and survives for a long time and avoids bankruptcy. Good financial management is the main aspect of a company. Companies must be able to monitor and manage their financial aspects to avoid financial distress. In agency theory, it is not only financial management that must be considered in avoiding financial distress, but also when agents make wrong decisions and result in losses and the company cannot pay its debts (Suryani Putri 2020). According to Platt and Platt (2002) in Fatmawati (2017) financial distress is the occurrence of financial difficulties in an entity or company before it goes bankrupt. If this financial problem is left unchecked, the company will experience bankruptcy due to worsening financial conditions.

The occurrence of Covid-19 resulted in companies throughout 2019-2021 experiencing a decline in financial performance and this was felt in almost every economic sector. The unstable increase in raw material prices due to fluctuations in the rupiah exchange rate makes it difficult for manufacturing companies to control their financial systems (Indriyani, E. 2021). The lockdown situation implemented by various countries has also been a factor in the decline in manufacturing activity, almost all manufacturing companies have slumped and even temporarily closed due to limited supplies of materials, so that companies cannot carry out operational activities.



In the graph of the development of used product capacity, the manufacturing sector experienced the most drastic decline compared to other sectors. In the third quarter of 2019 it was 74.70% and experienced a decline in the fourth quarter of 73.11%, this is the second lowest

decline after the mining and quarrying sector. In 2020 the manufacturing sector experienced a very significant decline compared to other sectors. The electricity, gas and clean water sectors experienced an increase of 80.59%, the agricultural sector decreased by 73.11%, the mining sector decreased by 70.88%, and the manufacturing sector decreased by 67.38%. From the picture above, it can be concluded that the manufacturing sector is the sector that has experienced the largest decline in weighted net balance compared to other sectors.

Liquidity Ratio is a ratio that states the level of an entity's ability to pay short-term obligations. In this research, the Current Ratio (CR) proxy is used to predict financial distress conditions. According to Muwanir (2005:72) in Ginting (2017) Current Ratio (CR) shows the level of security (Margin of Safety) which is useful for lenders in the short term, knowing the Margin of Safety can convince creditors to provide funds for company operations at a certain level. agreed loan interest. According to research conducted by Asfali (2019), the liquidity ratio with the CR proxy has a significant negative influence in predicting financial distress. This is in line with research conducted by Cahyani & Indah (2021) which states that the CR proxy has a significant negative influence in predicting financial distress. However, there is also research that contradicts the results of the research above, namely research conducted by Carolina et al., (2018) and Kusumawati & Birnanitta (2020) which states that the liquidity ratio with the Current Ratio proxy has no influence on financial distress.

H1: Liquidity Ratio (Current Ratio) has a negative effect on Financial Distress

Profitability ratios according to Fitriani & Huda (2020) are ratios that can calculate a company's ability to generate profits from assets that have been used, or profitability ratios measure how much profit is generated from asset productivity. The high profitability ratio in the company also shows good financial performance. Return On Assets (ROA) shows the return or profit generated from company activities. By using ROA, the company's ability to gain profits can be determined (Carolina et al., 2018). If the ROA level in the company is high, it can be concluded that the company is able to generate profits and can fund the company's operational activities, and conversely, if the ROA level is low, the company is less able to generate profits and this can cause financial distress. Research by Agustini & Wirawati (2019) states that the ROA ratio has a significant negative influence on financial distress. However, this is contrary to the results of research by Wulandari (2020) which states that the ROA

ratio has no influence on financial distress.

H2: Profitability Ratios (Return on Assets) have a negative effect on Financial Distress

The leverage ratio is one of the ratios that can be used to calculate the level of effectiveness of a company in using debt as capital to carry out its business activities (Syamsuddin et al., 2021). Research conducted by Ginting (2017) shows that leverage is said to be efficient in measuring its effect on financial distress because the greater the possibility of financial distress occurring, the smaller the leverage ratio in a company and vice versa. In this study, the leverage ratio is used as a proxy for the Debt Equity Ratio (DER) which is used to compare the amount of debt to equity. According to Cahyani & Indah (2021) this ratio is used to compare total debt with the capital owned by the Company to find out how much funds the Company uses from its debt to become capital. From this ratio, investors can see how much debt the company has compared to the equity owned by the company or its shareholders. Debt equity ratio is also used as a measure used in analyzing financial reports to show the amount of collateral available to creditors (Shidiq & Khairunnisa, 2019). The higher the DER value, the more the company uses debt for operational activities and the risk of financial distress is also higher, and conversely, the lower the DER value, the less likely the company is to experience financial distress, because the debt owned is relatively small and the capital owned by the company bigger than the debt. This research is in line with research by Cahyani & Indah (2021) which states that the leverage ratio with the DER proxy has a positive effect on financial distress.

H3: Leverage Ratio (Debt Equity Ratio) has a positive effect on Financial Distress.

According to Harahap (2013) the activity ratio is a ratio that shows the total turnover of assets as measured by sales capacity, or you could say how assets can be converted into sales. This ratio is also commonly called the asset utilization ratio, which is used to assess the intensity and effectiveness of company assets in generating sales. Total asset turnover is a ratio used to measure a company's effectiveness in managing total assets and generating sales (Hery, 2017). The higher the TATO value, the more efficiently the company uses its assets to generate income. The higher the TATO value, the company can avoid financial distress, and conversely, the lower the TATO proxy, the greater the possibility of the company experiencing financial distress. In Ratna's (2018) research, it was stated that TATO had a significant negative effect on financial distress. This is reinforced by research by Cahyani &

Indah (2021) which states the same thing. However, there is also research that contradicts the results of the research above, namely research conducted by Agustini & Wirawati (2019) and Shidiq & Khairunnisa (2019) which states that the activity ratio with the TATO proxy has no effect on financial distress.

H4: Activity Ratio (Total Asset Turnover) has a negative effect on Financial Distress

Companies certainly want to avoid conditions of decline in financial performance which can result in various losses for many parties, thus predicting financial distress conditions is something that needs to be done, in order to predict future risks (Agustini & Wirawati, 2019). In this research the author uses financial indicator factors in their influence on financial distress. In this research, the financial indicator factors used are financial ratios. Financial ratios can be interpreted as an index that connects numbers, then the ratio is obtained by operating it in the form of a division between these numbers (Kasmir, 2018). The numbers in financial ratios can be converted into useful information for making decisions within the company (Mas'ud & Srengga, 2015). Information on financial ratios in company financial reports includes liquidity, leverage, profitability and activity (Harahap, 2013). Thus, the benefits of this research are (1) to determine the influence of financial indicator factors as measured by financial ratios on financial distress conditions, (2) it can be used as a company decision making tool to determine financial strategies, (3) it can be used by parties Company external to analyze the Company's financial health.

II. RESEARCH METHOD

Testing in this research uses quantitative research methods. Quantitative research is research that uses data or numbers as the basis for its analysis, using secondary data in its collection. The population and sample of this research are manufacturing companies listed on the Indonesia Stock Exchange (BEI). Manufacturing companies that have negative profits for two consecutive years or more, manufacturing companies that consistently report their financial reports ending on December 31 for 2019-2021. , Manufacturing companies whose financial reports are reported using the Rupiah currency and all sub-sectors in manufacturing companies except the pharmaceutical sub-sector because they have positive profits during the 2019-2021 period due to increased demand due to Covid-19 conditions. From the sample criteria there are 171 manufacturing companies that meet The criteria are 30 manufacturing companies. The analysis technique in this research uses multiple linear regression. The aim of analyzing multiple linear regression is to obtain comprehensive

data regarding the correlation between variables (Ghozali, 2016). To determine the significant influence between variables, you can use the following calculation:

$$Y = \alpha + \beta 1.\ X1 + \beta\ 2.\ X2 + \beta\ 3.\ X3 + \beta\ 4.\ X4 + e$$

III. RESULTS AND DISCUSSION

This research aims to test the influence of Financial Indicator Factors in predicting Financial Distress conditions in Manufacturing Companies. The data source for this research is the financial report published by IDX from 2019 to 2021. The financial report contains information about the company's financial condition which can be analyzed using financial indicators, namely financial ratios. Then the Financial Distress variable is also obtained from the company's financial reports by calculating the bankruptcy level in this research using the Altman Z-Score bankruptcy analysis method.

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residuals
N		90
Normal Parameters, b	Means	0.00
	std. Deviation	3.14
Most Extreme Differences	absolute	0.074
	Positive	0.074
	Negative	-0.052
Test Statistics		0.074
asymp. Sig. (2-tailed)		**.200[CD]**

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

From the results of the Kolmogorov-Smirnov test above, the Asymp value is produced. Sig. (2-tailed) from the regression results is 0.200. Thus, the Kolomogorov-Smirnov test results from the regression model have met the normality requirements with a Sig value. > α= 0.05. This means that it can be concluded that the data tested has a normal data distribution.

The multicollinearity assumption test is used to determine the level of association, cohesiveness or linear relationship between independent variables

Variable	Collinearity Statistics	
	tolerance	VIF
CR (X1)	0.640	1,563
ROA(X2)	0.518	1930
DER(X3)	0.432	2,317
TATTOO (X4)	0.523	1912

in table it is known that the VIF value of the four variables is less than 10. And the tolerance value of the five variables is more than 0.100. Thus it can be concluded that there is no multicollinearity in the data tested.

In the multiple linear regression model, it is necessary to test the occurrence of the variance equation from one residual to another. If the residuals have the same variance, then it is called homoscedasticity, whereas if the variances are not the same, it is called heteroscedasticity.

Variable	Sig.
CR (X1)	0.742
ROA(X2)	0.447
DER(X3)	0.419
TATTOO (X4)	0.644

Based on the Glesjer test results, the sig. of each of the variables above is 0.742, 0.447, 0.419, 0.644, > 0.05 so that the five variables in the regression model do not occur heteroscedasticity.

variabel	koefisien regresi (B)	Std. Error	Std Coefficient	t hitung	Sig.
(Constant)	4.354	0.690		6.313	0.000
CR (X1)	-1.041	0.489	-0.172	-2.131	0.036
ROA(X2)	-0.019	0.009	-0.181	-2.017	0.047
DER (X3)	-1.364	0.353	-0.380	-3.868	0.000
TATO (X4)	-2.297	0.909	-0.226	-2.525	0.013

The autocorrelation test was carried out to ensure that the linear regression model has a correlation between the confounding errors in a period t and the confounding errors in the previous period (t-1). If the test results find a correlation, then the finding will be called an autocorrelation problem. One way that can be done to test whether there is autocorrelation is to use the Durbin-Watson (DW test). Through this test, calculated DW values (d) and DW table values (dL and du) will be generated. The results of the DW test are as follows:

Research Model Autocorrelation Test		
Criteria	Mark	Information
DL	1.5420	No Autocorrelation Occurs
DU	1.7758	
4-DU	2.2242	
Durbin-Watson	1,811	

Based on the table above, the DW value is 1.811. The dU and dL values seen in the Durbin Watson table are dU with k=5, k is the number of independent variables, and n (number of data) = 90 is 1.7758 and the dL value is 1.5420. It can be concluded that dU < DW < 4 – dU ; means there is no positive or negative correlation. 4 – dU = 4 – 1.7758 = 2.2242, it can be seen that 1.7758 < 1.811 < 2.2242. It can be concluded that the regression model above has no autocorrelation problems, either positive or negative. From this, it can be concluded that the data tested did not have autocorrelation problems.

Hypothesis testing in this research uses the T test, F test and R square with the following results:

variabel	koefisien regresi (B)	Std. Error	Std Coefficient	t hitung	Sig.
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Priyanto (2012) The f test or regression coefficient test is jointly used to determine whether the independent variables jointly have a significant effect on the dependent variable. The test uses a significance level of 0.05. Simultaneous regression test (Test f) can be formulated as follows:

1) If Sig. < 0.05, then H0 is rejected, and Ha is accepted (significant)

2) If Sig. > 0.05, then H0 is accepted, and Ha is rejected (not significant)

Model	Sum of Squares	df	MeanSquare	F count	Sig.
Regression	1598683	4	399,671	38,667	.000[b]
residual	878,577	85	10,336		
Total	2477260	89			

Based on table above, it is known that the calculated F value = 38.667, and the Sig. = 0.000, while the value of F table with df (4.85) = 2.48. Thus the calculated F value is 38.667 > F table 2.48, and the Sig. 0.000 <0.05 so that H0 is rejected Ha is accepted, this is the five independent variables Current Ratio (X1), Profitability Ratio (X2), DER (X3), Total Asset Turnover (X4), together have a significant effect on Financial variables Distress (Y).

The coefficient of determination (R^2) is used to measure the capacity of the regression model's ability to explain variations in the dependent variable. The R^2 value is between 0 and 1. When the R^2 value is small, the independent variable is limited in explaining the dependent variable. Meanwhile, when R^2 approaches 1, the independent variable explains almost all of the information on the dependent variable.

Analysis of the coefficient of determination (R2)

R	R Square	Adjusted R Square	std. Error of the Estimate
.803[a]	0.645	0.629	3.215

Based on table the model above shows that the value of Adjusted R Square = 0.629. This shows that 62.9% of Financial Distress (Y) is influenced by the variables Current Ratio (X1), Profitability Ratio (X2), Debt Equity Ratio (DER) (X3), Total Asset Turnover (X4), while the rest (100%) - 62.9%), namely 37.1% Financial Distress (Y) is influenced by other factors outside of this study.

In the multiple linear regression analysis, the following equation is obtained:

Y = 4.354 - 1.041 CR - 0.019 ROA - 1.364 DER - 2.297 TATO + e;

Current Ratio (CR) is the ratio used to measure a company's ability to meet short-term obligations with its current assets. A low CR indicates a company's weakness in managing its short-term obligations, such as paying debts or interest on loans. The lower the CR, the higher the chance of financial distress, and conversely, the higher the CR value, the lower the chance of financial distress, because the company is considered capable of fulfilling its short-term obligations. When companies start to be unable to pay their obligations, companies need to rely on external resources such as applying for additional loan funds or debt restructuring to survive. The results of this research can also be a signal for investors and other external parties in making financing decisions for companies. The results of this study are in line with Haras et al (2022) which state that the CR ratio has a significant negative effect.

The profitability ratio is a key indicator in measuring a company's financial health, because the ROA ratio measures a company's capacity to generate profits from the company's assets. The higher the value of the ROA ratio, the lower the chance for a company to experience Financial Distress, because then the company is proven to be able to utilize and manage its assets properly, and conversely the lower the value of the ROA ratio, the greater the chance for the company to experience Financial Distress because the company cannot take advantage of good company assets. A low ROA level

indicates a negative signal for the company. According to Asfali (2019) if a company has a low ROA, it will have a negative impact on the company's liquidity and leverage.

The results of this study are supported by the research of Mas'ud & Srengga (2015), Cahyani & Indah (2021) and (Asfali, 2019) which state that ROA has a significant negative effect on Financial Distress.

The leverage ratio is one of the ratios that can be used to calculate the effectiveness of a company in using debt as capital to carry out its business activities (Syamsuddin et al., 2021). Research conducted by Ginting (2017) shows that leverage is said to be efficient in measuring its effect on financial distress because the greater the possibility of financial distress, the greater the leverage ratio in small companies and vice versa. The results in this study are significantly negative, when the DER value is high, the risk of financial distress in a small company and vice versa when the DER is low, the risk of the company experiencing financial distress is greater.

Total Asset Turnover (TATO) is used to measure how efficient a company is in using assets and generating income. The lower the TATO value, the higher the chance for a company to experience financial distress and vice versa, the higher the TATO value, the lower the chance for a company to experience financial distress. According to (Anjasari et al., 2020) The downward trend in sales over time can also be reflected in the low TATO value, so that the company does not have sufficient income to cover its operational costs and financial obligations. This research is in line with the research by Agustini & Wirawati (2019) which states that the TATO ratio has a significant negative effect on financial distress.

IV. CONCLUSION

The purpose of this study was to determine the effect of financial indicator factors on financial distress in manufacturing companies in 2019-2021. Based on the analysis carried out using multiple regression analysis in the SPSS 25 program, it can be concluded that the Ratio of Liquidity, Profitability, Leverage and Activity has a significant negative effect on predicting symptoms of financial distress, because the higher the ratio, the less likely the company will experience financial distress, and conversely, the smaller the ratio, the greater the risk of financial distress occurring in the company.

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