THE INFLUENCE OF PROFITABILITY, LIQUIDITY AND LEVERAGE ON FINANCIAL DISTRESS

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Abstract

The aim of this research is to analyze and detect empirical evidence regarding the influence of profitability, liquidity and leverage on financial distress simultaneously and partially in manufacturing companies listed on the Indonesia Stock Exchange for the 2020-2022 period. This type of research uses quantitative. In this research there are 3 independent variables, namely profitability (ROA), liquidity (CR), leverage (DAR) and the dependent variable, namely financial distress (ICR). The population uses all 709 manufacturing companies listed on the Indonesia Stock Exchange for the 2020-2022 period, sourced from idx.co.id. The sample was determined using a purposive sampling technique to obtain 25 companies. The analysis method using logistic regression states that profitability, liquidity have a negative effect on financial distress and leverage has a positive effect on financial distress.

Keywords *: Profitability, Leverage, Financial Distress*

Introduction

In 2020, Indonesia's economic growth decreased by 2.07%, lower than in 2019 which grew by 5.02%. According to the head of the Central Statistics Agency (BPS), Suhariyanto, one of the causes is that the growth of the industrial sector is slowing down and processing is weakening (Fajar Febrianto, Tempo 2020). This condition can trigger a financial crisis which will affect the company's performance and experience financial distress.

The declining industrial sector of companies in Indonesia is experiencing financial difficulties being delisted from the Indonesian Stock Exchange. Delisting means if shares listed on the stock exchange experience a reduction in criteria so that they do not meet the listing requirements, the shares will be delisted and cannot be transacted on the Indonesian Stock Exchange (Permana Djadang et, al 2017). Delisting occurs because the company declares bankruptcy, the company ceases operations, merges, does not complete the requirements of the stock exchange authority or becomes a closed company. The delisting phenomenon throughout 2020 saw the Indonesian Stock Exchange remove 6 issuers from various sectors:

Table 1
Company Delisting from the Indonesian Stock Exchange for the 2020 period

Year	Name of Company Delisting	Sector or Sub Sector	Cause
2020	1. Borneo Lumbung Energi dan Metal Tbk (BORN)	Mining	Financial Distress
2020	2. Evergreen Invesco Tbk (GRENN)	Wholesale Trade (production goods & consumer goods)	Financial Distress
2020	3. Arpeni Pratama Ocenan Line Tbk (APOL)	Infrastructure, Utilities & Transportation	Financial Distress
2020	4. Danayasa Arthatama Tbk (SCBD)	Property & Real Estate	Financial Distress
2020	5. Leo Invesments Tbk (ITTG)	Trade, Services & Investment	Financial Distress
2020	6. Cakra Mineral Tbk (CKRA)	Metal & Mineral Mining	Financial Distress

Source : Bursa Efek Indonesia (.idx.co.id)

A company experiencing delisting due to financial difficulties is an indication of the company's financial health or poor corporate governance. Financial distress often occurs due to inability to maintain and manage the stability of the company's financial performance, which stems from failure to market the products produced resulting in a decrease in sales volume so that profits will decrease, risking the company experiencing net losses and operational losses for the current period (Chairunesia et al, 2018). Based on the description of the phenomenon, the aim of this research is to analyze and detect

empirical evidence about the influence of profitability, liquidity, leverage on financial distress.

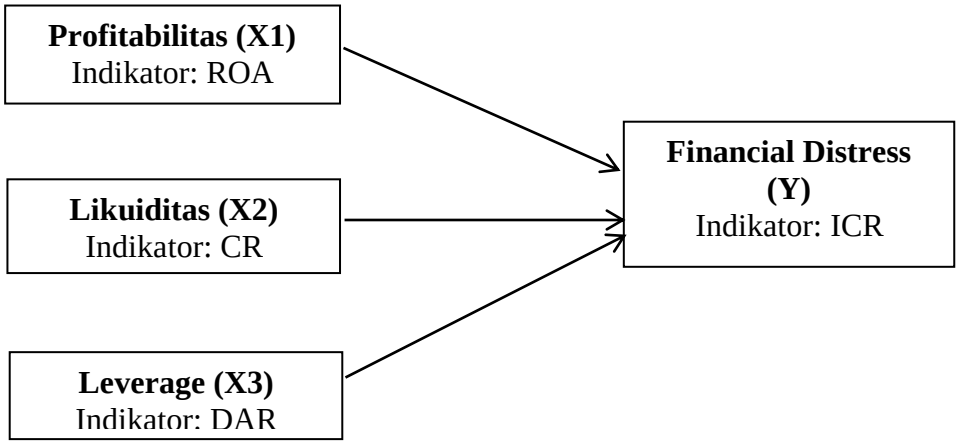
Literature review

Signalling Theory

The theory used is Signaling Theory created by Spence (1973) which suggests a signal or condition for providing information. In Immannuel's (2015) research, there are two types of signals in companies, namely bad signals (bad news) and good signals (good news). This means that the company will provide good signal information to stakeholders in increasing company profits and share prices, if the company provides bad signal information to stakeholders it tends to limit information to the public.

According to Amanda (2019), financial distress is a condition where a company experiences a decline in net operating income for several years and for more than one year does not make dividend payments, lays off workers, or eliminates dividend payments. Financial distress is a condition where the company's finances are in an unhealthy condition, or a crisis that occurs before bankruptcy.

Framework



Picture I. Framework

The hypotheses for this research put forward by theory can be used as problems, including:

H1: Profitability has a negative effect on financial distress

H2: Liquidity has a negative effect on financial distress

H3: Leverage has a positive effect on financial distress.

Research Methodology

This type of research is classified as quantitative, where it tests the effect of profitability, liquidity and leverage on financial distress. And to become an object are the financial reports of manufacturing companies listed on the Indonesia Stock Exchange for the 2020-2022 period.

The population uses all manufacturing companies listed on the Indonesia Stock Exchange (BEI) for the 2020-2022 period. There are 835 companies (BEI) or the direct website idx.co.id. The sampling method uses a purposive sampling procedure technique, which means "the aim is to achieve representatively the same direction as the criteria, among others, so that a sample of 25 companies is obtained.

This type of data uses secondary data, taken based on predetermined criteria and annual financial report documents registered on the IDX or the website from idx.co.id. The data collected uses documentation techniques, namely collecting financial report documents by observing and looking directly. As well as library methods with references to national and international journals that support this research.

To make this research easier, the operational definition of variables is described as follows :

Profitability can be found using ROA (Retrun On Assets), namely by comparing net profit after tax and total assets, which can be found as follows:

ROA : Net profit after tax / total assets

Liquidity can be calculated using CR (Current Ratio), which can compare total current assets and current liabilities, with the following formula:

CR : Current assets / current liabilities

Leverage can be found using DAR (Debt to Asset), which compares all total debt and total assets, so it can be formulated as follows:

DAR : Total debt / total assets

Financial distress is measured using the interest coverage ratio (ICR) by comparing profit before tax interest and interest expense. Financial distress is declared a dummy variable, if a company has an interest coverage ratio lower than one then it is declared financial distress and is given the number 1, and for those that do not experience it the number 0 is given. It can be formulated:

ICR : Operating profit/ Interest expense

Research Results and Discussion

Tabel 2
Descriptive Statistics

	N	Min	Max	Mean	Std. Deviation
PROFIT	75	-2.64	.61	.0253	.37557
LIKUID	75	.02	15.82	2.5523	2.79610
LEVE	75	.07	2.90	.5340	.50117
Valid N (listwise)	75				

Descriptive statistics show the minimum, maximum, maximum, average and standard deviation values as follows:

a) It can be seen that the profitability (ROA) of the 25 companies studied for the 2020-2022 period has a minimum value of -2.64, namely PT Tiga Pilar Sejahtera Tbk in 2020, the maximum value is 0.61, namely PT Tiga Pilar Sejahtera Tbk in 2022, the mean value a number of 0.0253 for a standard deviation of 0.037557. Thus, with high profitability, a company can control its assets effectively and efficiently so that a company will avoid financial distress.
b) It can be seen that the liquidity (CR) in the 25 companies studied for the 2020-2022 period is that the minimum value is 0.02, namely PT Magna Investama Makmur Tbk in 2022, the maximum value is 15.81, namely Champhina Ice Cream Industry Tbk in 2020, the value the mean is 2.5523, for a standard deviation of 2.79610. Thus, with a large liquidity value, the company can pay its short-term obligations.
c) It can be seen that the leverage (DAR) in the 25 companies studied for the 2020-2022 period is that the minimum value is 0.07, namely PT Inti Agri Resources Tbk in 2022, the maximum value is 2.90, namely PT Tiga Pilar Sejahtera Tbk in 2020, the average value is a total of 0.5340 for a standard deviation of 0.50177. Thus, with leverage, the assets owned by the company for operational activities are obtained from creditors in the form of loan funds.
d) It can be seen that the number (N) studied was 25 companies over 3 years so that 75 samples were obtained from food and beverage subsector manufacturing companies listed on the Indonesia Stock Exchange (BEI) during 2020-2022.

Table 3
Descriptive Statistics
Financial Distress

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tidak FD	58	77%	77%	77.0
	FD	17	22%	22.%	100.0
	Total	75	100.0	100.0	

The results of obtaining descriptive statistics on the frequency distribution show that the data obtained was 58 or 77% who did not experience financial distress. The data obtained was that 17 or 22% of companies experienced financial distress. It can be seen that more of the sample in this study did not experience financial distress.

Table 4

Collinearity Statistics	
Tolerance	VIF
.643	1.556
.826	1.211
.551	1.815

Based on the multicollinearity output calculation, it can be seen that the Tolerance value of each variable is greater than 0.10 while the VIF of each variable is smaller than 10.00, so it can be concluded that multicollinearity does not occur between the independent variables.

Model Feasibility Test

Table 5
Uji Hosmer and Lemeshow Goodnes Fit

Step	*Chi Square*	*Df*	*Sig*
1	*4.450*	*7*	*.727*

In table 5 of the results of the Hosmer and Lemeshow Goodness of Fit test there is a Chi-square of 4.450 with a significance of 0.727. It can be seen that the significance value is greater than 0.05 so that the regression model for this research can be used because it is suitable and matches the observation data.

Test Assessing Model Fit

Table 6
Test Assessing Model Fit

Iterarion	-2 Log Likehood
Step 0	83.028
Step 1	47.301

From table 6 above, it can be seen that there was a decrease in the initial -2 log likelihood at step 0 amounting to 83,028, after the three variables were entered there was a decrease in the -2 log likelihood value at the end of step 1 to 47,301. It can be interpreted that the regression model is good, the model is hypothesized to be suitable for use (Santoso, 2014:220).

Omnibus Testing Test

Table 7

Omnibus Test Model Coefficients				
		Chi-square	Df	Sig
Step 1	Step	32.981	3	.000
	Block	32.981	3	.000
	Model	32.981	3	.000

Based on the test above, a significance value of 0.00 is obtained, where less than 0.05 means that there is an influence of the three variables together on financial distress.

Determinant Coefficient Test

Table 8
Model Summary

Step	-2 log likehood	Cox & Snell R-square	Nagelkerke R-Square
1	47301[a]	.356	.541

In table 9, the summary model test states that the Nagelkerke RSquare is 541, meaning 54.1%, meaning that the independent variables, namely profitability, liquidity and leverage, can explain the dependent variable, namely financial distress, while the remaining 45.9% is explained by other independent variables outside the model.

Classification Matrix Test

Table 9
Classification 2x2

Observed			Predicted		
			Financial Distress		Percentage Correct
			0	1	
Step 1	FD	TIDAK FD	56	2	96.6
		FD	7	10	58.8
		Overall Percentage			88.0

The table shows that of 75 samples, 58 of the companies did not experience financial distress out of 56 sample companies or a percentage of 96.6% could be predicted correctly using the logistic regression model, 2 samples or 3.4% could not be predicted correctly. From a sample of 17 companies experiencing financial distress, there were 10 samples or 58.8% that could be predicted correctly and 7 or 41.2% could not be predicted. The result of all this is that the accuracy of the classification model is 88.0%, which can be further predicted.

Hypothesis test

Table 10
Hypothesis test

								95% C.I.for EXP (B)	
		B	S.E	Wald	Df	Sig	Exp (B)	Lower	Upper
Step1[a]	XI	-14.905	5.190	8.246	1	.004	.000	.000	.009
	X2	-.033	.259	.016	1	.899	.968	.583	1.607
	X3	5.406	2.099	6.631	1	.010	222.681	3.637	13633.789
	Constant	-3.463	1.383	6.266	1	.012	.031		

a. Variabel (s): PROFIT, LIKUID, LEVE.

Testing of logistic regression is obtained as follows:
FD = -3.463 -14.905 (PROFIT) -0,033 (LIKUID) + 5.406 (LEVE) + e

Information :
FD = Financial Distress

PROFIT = Profitability (ROA)
LIKUID = Liquidity (CR)
LEVE = Leverage (DAR)
e = eror

In table 10 the results of the hypothesis test can be concluded:

a) That the research hypothesis H1 can be supported and accepted. Acceptance of this research hypothesis is because ROA has a sig value of 0.004 and has a coefficient value of – 14,905 with a negative coefficient direction. This means that ROA has a significant and negative influence. It can be concluded that the independent variable with the ROA indicator has a negative influence on financial distress.
b) That the research hypothesis H2 can be supported and accepted, but the effect is not significant. This is because the sig value is above 0.05, namely 0.899 and a beta coefficient value of -0.033 is obtained, which means that the independent CR indicator variable has a negative and insignificant effect on financial distress.
c) That hypothesis H3 can be supported and accepted. Acceptance of this research hypothesis is because DAR has a sig value of 0.010 and a beta coefficient value of 5.406 in a positive direction, which means that the independent variable DAR indicator has a positive and significant effect on financial distress.

Discussion

a. Profitability has a negative effect on financial distress conditions
   A company that has high profitability means that it can manage and use its assets efficiently and effectively. To generate high profits thereby reducing costs or expenses incurred by the company. Reducing costs or expenses will result in savings and sufficient funds to carry out business activities or activities, thereby avoiding financial distress. On the other hand, if profitability is low due to inefficiency in managing its assets to generate profits, the company will incur losses resulting in negative cash flow and the company has the potential to experience financial distress. The results state that the profitability variable has a significant negative effect on financial distress. This research is supported by Intan Saputri Ayuningtyas and Bambang Suryono (2019) showing that profitability has a negative effect on financial distress.
b. Liquidity has a negative effect on financial distress conditions
   High and low liquidity ratios do not have a significant influence on predicting financial distress because there is no difference between liquidity in financial distress and not experiencing financial distress. In a company,

healthy liquidity provisions are in 2 for every I current debt owned by the company, so there are 2 current assets available to cover its current liabilities which are due. So the average in research is above 1 from the 2020-2022 period to cover the current debt. So in this research there is no significant difference between companies that experience financial distress and companies that do not experience financial distress. The results of this research are not in line with Fitri Marfangatun (2017) that liquidity influences financial distress.

c. Leverage has a positive effect on financial distress
   Companies that have high leverage will cause greater financial distress. If a company increasingly uses short-term debt or long-term debt, there is a risk of difficulty making payments at the specified time or in the future because the debt is higher than the assets owned so that the company is unable to generate more profits to pay the debt and the amount of interest. . This will signal bad news for investors because a company with a high level of leverage means that a company has debt from obtaining funding that does not guarantee the total assets owned, so investors do not invest in the company. Research results supported by Vania Azalia and Yuliastuti (2019) show that leverage has a significant positive effect on financial distress conditions.

Conclusion

Distinct patterns appear in the analysis of financial measures and their influence on conditions of financial hardship. To begin with, the variable of profitability, as measured by the Return on Assets (ROA), demonstrates a statistically significant negative impact. This suggests that there is a negative relationship between profitability and the probability of a corporation encountering financial hardship. This association highlights the significance of profitability as a protective measure against financial instability.

In contrast, it can be observed that liquidity, although displaying a negative association, does not exhibit a statistically significant impact on the occurrence of financial crisis circumstances. This investigation indicates that although increasing liquidity is commonly regarded as a protective measure for enterprises, its effectiveness in mitigating financial crisis is not definitively established. This suggests that there may be additional variables that could take precedence over liquidity in mitigating financial difficulties.

Finally, the utilisation of leverage exhibits a favourable and substantial influence on the state of financial hardship. This indicates that as corporations increase their debt-to-equity ratio, their vulnerability to financial trouble rises. The evident correlation between elevated leverage and heightened vulnerability

to financial upheaval underscores the imperative for enterprises to exercise cautious management and vigilant oversight of their capital structure.

In conclusion, it can be stated that profitability and leverage have significant and influential effects on financial distress circumstances, as shown by statistical evidence. However, the significance of liquidity in this context is still uncertain and requires additional research to gain a deeper understanding.

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