

THE EFFECT OF PROFITABILITY TOWARDS FINANCIAL DISTRESS

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ABSTRACT: This research distinguishes itself from previous studies by using data from 2017 to 2023. This study was conducted for the purpose to know the effect of profitability towards financial distress in manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2017 – 2023, data from 226 population. Data were collected using purposive sampling method, selected 46 companies, and 322 unit of observations as samples. The data analysis method in this research is multiple linear regression test and SPSS. This research has 1 dependent variable, 1 main independent variable, and 4 control variables. The dependent variable is financial distress which is calculated using Altman Z-Score model. The independent variable is profitability which is calculated with return on assets (ROA). The control variables are leverage, which is calculated using debt to asset ratio (DAR), liquidity is calculated using current ratio (CR), activity calculated using assets turnover, and firm size is calculated using natural logarithm of total asset. The result of this study shows that profitability and activity have significant and positive effect towards financial distress, leverage has a significant and negative effect towards financial distress, liquidity and firm size have no significant effect towards financial distress.

Keywords: *Profitability, Financial Distress, Manufactures.*

ABSTRAK: Yang membedakan penelitian ini dengan penelitian sebelumnya adalah dengan menggunakan data dari tahun 2017 hingga 2023. Penelitian ini dilakukan dengan tujuan untuk mengetahui pengaruh profitabilitas terhadap financial distress pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia (BEI) tahun 2017 – 2023, data dari 226 populasi. Data dikumpulkan dengan metode purposive sampling, terpilih 46 perusahaan, dan 322 unit observasi sebagai sampel. Metode analisis data dalam penelitian ini adalah uji regresi linier berganda dan SPSS. Penelitian ini memiliki 1 variabel dependen, 1 variabel independen utama, dan 4 variabel kontrol. Variabel dependen adalah financial distress yang dihitung menggunakan model Altman Z-Score. Variabel independen adalah profitabilitas yang dihitung dengan return on asset (ROA). Variabel kontrol adalah leverage, yang dihitung menggunakan debt to asset ratio (DAR), likuiditas dihitung menggunakan current ratio (CR), aktivitas dihitung menggunakan asset turnover, dan ukuran perusahaan dihitung menggunakan logaritma natural total aset. Hasil penelitian ini menunjukkan bahwa profitabilitas dan aktivitas berpengaruh signifikan dan positif terhadap financial distress, leverage berpengaruh signifikan dan negatif terhadap financial distress, liquidity dan ukuran perusahaan tidak berpengaruh signifikan terhadap financial distress.

Kata kunci: *Profitabilitas, Financial Distress, Manufaktur*

INTRODUCTION

The manufacturing sector functions under a very competitive landscape. Manufacturing companies are those that carry out tasks including obtaining raw materials, transforming them into finished products, and getting them ready for market. Moreover, the manufacturing industry operates in a highly competitive environment. As a result, in order to prevent a decline in profit, manufacturing businesses need to be very aware of the funding they will get. Because of this, companies need to improve internal factors to keep growing and succeeding in the market. For the Profitability, PT. Akasha Wira International Tbk with increasing return on

assets ratio from year 2020-2023 held first place, PT Alkasa Industrindo following as the second, and lastly PT. Alkindo Naratama. A healthy ROA ratio ranges from 5% to 20%. The ROA ratios of all three companies are currently within or higher of that range, indicating excellent performance. Subiyanto & Siagian (2022) conducted a study suggesting that profitability, as the independent variable, has a significant negative impact on financial distress, the dependent variable. What differs this study and the previous study is the sector and variables where the previous research use Pharmaceutical as the Sub-Sector Companies and having moderating variable, while writer have variables control.

To show the significance of the variables to a company's capacity to evade financial distress, the researcher decided to concentrate the study on the relation between profitability, leverage, liquidity, activity, and firm size to financial distress analysis. This led researcher to become interested in the topic and conduct a study to determine whether or not these factors can be used to avoid financial distress in businesses. It is expected that internal stakeholders, including creditors and investors, will use this study to assess the company's financial condition. The purpose of this study is to identify the impact of profitability, leverage, liquidity, activity and firm size on financial distress. It is predicated on the data and conclusions of previous studies on financial distress. Manufacturing companies that listed on the IDX between 2017 and 2023 serve as the study's research objects.

LITERATURE REVIEW

Agency Theory

According to Jensen and Meckling (1976), a contract between an owner and a management is agency theory. To ensure the smooth operation of this contractual arrangement, the owner will assign decision-making responsibility to the manager. An agency relationship is a contractual arrangement whereby one or several parties (employers or principals) hire another party to carry out various tasks and assign the agent the power to make choices (Jensen & Meckling, 1976). Agency relationships occur between shareholders and managers and/or between shareholders and creditors within the context of financial management. Decisions made by a company's managers may not align with the organization's objective of optimising shareholder wealth. In this instance, employees help management make decisions. A manager's ambition to create their own divisions in order to increase their level of responsibility and pay may influence decisions to grow the company. This conflict is referred as an agency problem.

Profitability

Profitability ratio is compared to Return on Assets (ROA), which gauges how well a business uses its assets to produce revenue (Oktaviani & Lisiantara, 2022). Within the manufacturing industry, companies commonly have substantial fixed assets like equipment, buildings, and stock. Return on assets (ROA) serves as a crucial gauge of how well these assets are being utilized to produce revenue. The following is the Return on Assets (ROA) formula in use:

$$\text{Return on Assets} = \text{Net Sales} / \text{Total Assets}$$

Financial Distress

Financial distress is initially indicated by the organization's inability to pay its debts, particularly short-term ones such liquidity and solvency category liabilities. (Kristanti, 2019). In this research, the measurement of financial distress is using Altman Model by below formula:

$$Z = 1.2X1 + 1.4X2 + 3.3X3 + 0.6X4 + 1X5$$

Hypothesis Development



A ratio called profitability is used to evaluate a business's ability for turning financial gain over a given period of time. A higher profitability level is regarded as indicative of a firm's potential to generate substantial profits and exhibit superior corporate performance, hence reducing the likelihood of the company encountering financial distress. A lower profitability ratio signifies inadequate financial performance, as the company fails to optimize its assets, resulting in reduced profitability. This corresponds with agency theory, which refers to the contractual relationship between owners (principals) and management (agents). In addition to providing resources and funds, shareholders will oversee management's performance. Management must come up with a strategy to make the most use of company resources and generate large revenues. High profitability is advantageous to both sides. The research findings of (Rahma & Dillak, 2021) and (Mutmainnah & Huda, 2022) demonstrating that financial distress is negatively impacted by profitability. Based on the theoretical background and factors stated above:

H1: Profitability has significant influence toward Financial Distress.

RESEARCH METHODOLOGY

The population in this study is all manufacturing companies' financial statements that are reported on the IDX between 2017 – 2023. Purposive sampling will be used to choose the sample. Purposive sampling, according to Sugiyono (2006), is sampling based on predetermined criteria (Lararenjana, 2020). Using a variety of criteria is the method for selecting samples in purposive sampling. There are 227 manufacture companies listed on the IDX in 2017-2023, but some companies are not qualified as samples based on the established criteria. The overall companies are not qualified as sample criteria are 180, and because the sample duration is seven years, the total number of samples are 322.

Table 1 Sample Criteria

No.	Description	Amount
1.	The manufacture listed on Indonesia Stock Exchange	226
2.	The manufacture companies do not regularly publish on Indonesia Stock Exchange from 2017-2023.	(148)
3.	The manufacture companies are not using IDR as the currency.	(26)
4.	The manufacture companies that suffer loss in the financial statement from 2017-2023.	(6)
Total of Manufacturing Companies		46
Total Periods (2017 – 2023)		7
Total Sample		322
Total Outlier Data		(70)
Total Sample Data after Outlier		252

Source: Prepared by Writer (2024)

This study uses a quantitative descriptive technique to investigate the effect of leverage, liquidity, activity, and firm size on financial distress. The quantitative method in this research will employ a hypothesis that may be examined by examining the correlations between the

variables. By employing the descriptive technique, a researcher can identify patterns within the research setting and use numerical data to explain a condition. Numerical data can be utilized to visualize trends (Roni, Merga, & Morris, 2020). The principal source of secondary data for this research will be annual financial statements of manufacturing firms listed on the IDX from 2017 to 2023. Data obtained by writers from previously collected information is known as secondary data according to established criteria.

The model of multiple regression test:

$$Y = a + \beta_{151} + \beta_{252} + \beta_{353} + \beta_{454} + \beta_{555} + s$$

$$FD = a + \beta_{1PR} + \beta_{2LEV} + \beta_{3LIQ} + \beta_{4ACT} + \beta_{5FS} + s$$

Description:

FD : Financial Distress

PR : Profitability

LEV : Leverage

LIQ : Liquidity

ACT : Activity

FS : Firm Size

The gathered data is arranged using data analysis techniques into a more structured format that facilitates comprehension and interpretation. Reliable study findings are reflected in a well-chosen data analysis technique. Using the IBM SPSS version 27 software, a multiple linear regression analysis model is used in this quantitative study. The following methods of analysis will be used to examine the data gathered and processed for this study: correlation testing, classical assumption testing, model specification testing, descriptive statistical testing, and hypothesis testing.

RESULTS

Descriptive Statistics

Table 2 in the provided document summarizes the descriptive statistics for research variables related to 46 companies' sample from manufactures sector listed on the Indonesia Stock Exchange for the years 2017-2023 with total of 322 data before any treatment of outlier. The table includes the following variables: Profitability, Leverage, Liquidity, Activity, Firm Size, and Financial Distress. Here are the details:

Table 2 Descriptive Statistics Output

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic				
Profitability	322	.00	.53	.0975	.08505
Leverage	322	.01	1.19	.3475	.18312
Liquidity	322	.24	99.54	4.2551	8.37661
Activity	322	.00	22.40	1.1628	1.48626
Firm Size	322	23.35	32.86	28.9181	1.67404
Financial Distress	322	.70	604.84	18.0631	44.69450
Valid N (listwise)	322				

Source: Result of Data SPSS(2024)

According to the above table, the primary dependent variable in this study is profitability, with four additional control independent variables. The dependent variable is financial distress. The interpretation of the descriptive statistics as below.

Profitability (X1)

In profitability variable, it can be determined the minimum value in amount of 0 which means the lowest of company's ability in generating income is 0. The maximum value in amount of 0.53 means that the highest of company's ability in generating income is 0.53. The means of profitability is 0.0975, which means that the average of company's ability in generating income is 0.0975. Deviation standard in amount of 0.8505 means that during research period, the measurement spread of profitability is 0.8505 from 322 occurrences.

Leverage (X2)

In leverage variable, during research period, it can be determined the minimum value in amount of 0.1 which means the lowest of company's ability in fulfilling company's liabilities is 0.1. The maximum value in amount of 1.19 means that the highest of company's ability in fulfilling company's liabilities is 1.19. The means of leverage is 0.3475. It means that the average of company's ability in fulfilling company's liabilities is 0.3475. Deviation standard in amount of 0.18312 means that during research period, the measurement of spread of leverages is 0.18312 from 322 occurrences.

Liquidity (X3)

In liquidity variable, during the research period, it can be determined the minimum value in amount of 0.24 which means the lowest of company's ability to convert its assets into cash is 0.24. The maximum value in amount of 99.54 means that the highest of company's ability to convert its assets into cash is 99.54. The means of liquidity is 4.2551. It means that the average of company's ability in converting its assets into cash is 4.2551. Deviation standard in amount of 8.37661 means that during research period, the measurement of spread of liquidity is 8.37661 from 322 occurrences.

Activity (X4)

In activity variable, during the research period, it can be determined the minimum value in amount of 0 which means the lowest of company's ability to generate revenue from its assets is 0. The maximum value in amount of 22.40 means that the highest of company's ability to generate revenue from its asset is 22.40. The means of activity is 1.1628. It means that the average of company's ability to generate revenue from its assets is 1.1628. Deviation standard in amount of 1.48626 means that during research period, the measurement of spread of activity is 1.48626 from 322 occurrences.

Firm Size (X5)

In firm size variable, during the research period, it can be determined the minimum value in amount of 23.35 which means the lowest of company in terms of size based on assets or revenues is 23.35. The maximum value in amount of 32.86 means that the highest of company size based on assets or revenues is 32.86. The means of firm size is 28.9181. It means that the average of company's size is 28.9181. Deviation standard in amount of 1.67404 means that during research period, the measurement of spread of firm size is 1.67404 from 322 occurrences.

Financial Distress (Y)

In financial distress variable, during the research period, it can be determined the minimum value of 0.70 which means the lowest of company level of financial distress.

Pearson Correlation Analysis

The connection between financial distress and profitability was analyzed using a Pearson correlation analysis. Through the Pearson Correlation analysis table below, the correlation between profitability and financial distress as the main variables in this research

shows a statistically significant correlation. The p-value is <0.01 , which is below the standard significance level of 0.05, indicating that the correlation between profitability and financial distress is statistically significant.

Table 3 Pearson Correlation

Correlations			
		Profitability	Financial Distress
Profitability	Pearson Correlation	1	.390**
	Sig. (2-tailed)		<.001
	N	322	322
Financial Distress	Pearson Correlation	.390**	1
	Sig. (2-tailed)	<.001	
	N	322	322
**. Correlation is significant at the 0.01 level (2-tailed).			

The Pearson correlation coefficient is 0.390, suggesting a positive but low correlation between the two variables, as it falls within the range of 0.20 to 0.399. This low positive correlation indicates that as profitability slightly increases, financial distress may also experience a slight increase, though the relationship is weak. This interpretation is based on the correlation table as below (Sugiyono, 2006).

Table 4 Pearson Correlation Interpretation

Coefficient Interval	Significance Level
0.00 – 0.199	Very Low
0.20 – 0.399	Low
0.40 – 0.599	Moderate
0.60 – 0.799	Strong
0.80 – 1.00	Very Strong

Prepared by the writer (2024)

Source: (Sugiyono, 2006)

Hypothesis Testing

Table 5 Partial Hypothesis Testing

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.263	2.180		-.121	.904		
	Profitability	.561	.047	.479	11.854	.000	.791	1.264
	Leverage	-.868	.072	-.519	-12.121	.000	.706	1.415
	Liquidity	-.027	.053	-.022	-.523	.602	.707	1.414
	Activity	.151	.069	.083	2.196	.029	.910	1.099
	Firm Size	.843	.640	.049	1.316	.189	.942	1.062
a. Dependent Variable: Financial Distress								

Source: Result of Data SPSS (2024)

According to the outcomes of the hypothesis test, Profitability, the main independent variable, has a significant impact on Financial Distress. The t-test result, which has a significance value of 0.000 which is less than the 0.05 level of significance. This result shows that profitability and financial distress have a significant relationship. As a result, the first hypothesis (H1), according to which "Profitability has significant impact towards Financial Distress," is true and accepted. This research found that the coefficient of regression of profitability is 0.057 towards financial distress in manufacture sector which is significant. This relationship highlights that higher profitability does not necessarily lead to financial stability. In fact, as profitability increases, the likelihood of financial distress also increases. This can be explained through the Altman Z-score model, where an increase in the Z-score indicates better financial health, while a decrease in the Z-score signals a higher risk of financial distress. A Z-score above 1.8 falls into the grey zone, indicating that the company is in a transitional state, with a risk of either recovery or further decline. However, when the Z-score decreases below 1.8, it suggests a higher risk of severe financial distress and potential company closure.

According to Jensen and Meckling's Agency Theory, the conflict between owners (shareholders) and managers can be used to understand the relationship between profitability and financial distress. Managers may be encouraged to employ selfish approaches, such raising leverage or taking on riskier initiatives, as profitability rises. Despite the possibility of short-term financial gain, these activities may make the company more vulnerable to financial difficulties. When evaluating a company's financial health, it is crucial to take into account both profitability and agency expenses because this misalignment of goals can result in decisions that resulting long-term stability.

This finding aligns with prior research, including that of Kusuma, Dewi, and Ningsih (2022), stated that profitability has significant effect on financial distress by using 5% level of significance. This study shows that low profitability is a sign that a company is not doing a good job of managing its assets, which leads to poor profit and inability to pay for the investment that was made. The results of Kusuma, Dewi & Ningsih (2022), the value of 0.001 which means the value is significant or smaller than 0.05 or <0.05 . This research shows that financial distress is strongly impacted by profitability, indicating that, if improperly managed, higher profitability may result in higher financial risk. This can be concluded that the hypothesis of "Profitability have a significant effect on Financial Distress". Similarly, previous studies by Arief, Saratian, Oktaviar, Marlapa, & Soeltan (2024), Susanti, Latifa & Sunarsi (2022), Sitorus, Hernandy, Triskietanto & Vanessa (2022), and also found a correlation between liquidity and financial distress.

In contrast, the result of the research of Maysaroh, Suhendro & Dewi (2022) stated that profitability has no significant impact on financial distress. According to the research, this is because of the purportedly high profitability, which explains the efficacy and efficiency of asset management in order to lower expenses incurred by the business. There are also another four previous research that supported the same opposite result from this paper, such as the research conducted by Pramata & Hartono (2022), Antoniawati & Purwohandoko (2022), Nuzurrahma & Fahmi (2022), and Adityaningrum, Widyaningrum, & Mahirun (2024). It is possible to draw the conclusion from all of the data that different company sectors throughout different observation periods may produce different research findings.

CONCLUSIONS

Based on the testing already performed, the conclusion can be drawn is that profitability (RoA) has a significant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the period of 2020 to 2022, which concludes that the hypothesis proposed in this research (H1) is accepted.

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