International Journal of Economics, Business and Management Research

Vol. 9, No.02; 2025

ISSN: 2456-7760

Financial Ratios and Financial Distress on Manufacturing Companies in Indonesia

Arinta Kamesjwara[1], Wahyu Widarjo[2]
[1]Faculty of Economics and Business, Universitas Sebelas Maret
Ir. Sutami 36 Surakarta, Indonesia
[2]Faculty of Economics and Business, Universitas Sebelas Maret
Ir. Sutami 36 Surakarta, Indonesia

doi.org/10.51505/IJEBMR.2025.9217 URL: https://doi.org/10.51505/IJEBMR.2025.9217

Received: Jan 15, 2025 Accepted: Jan 27, 2025 Online Published: Feb 26, 2025

Abstract
Financial distress is a condition where a company experiences financial difficulties and caused company into bankruptcy. The purpose of this research is to investigate the impact of liquidity, profitability, and total assets turnover on the level of financial distress experienced by manufacturing companies that are listed on Indonesia Stock Exchange during 2019-2022. This study using purposive sampling based on particular criteria, thus sample of 617 data were acquired which obtained from 165 companies. The analysis technique in this research uses logistic regression analysis. This research indicates that liquidity, profitability, and total assets turnover have a strong negative effect on financial distress.

Keywords: financial distress, liquidity, profitability, total assets turnover

1. Introduction

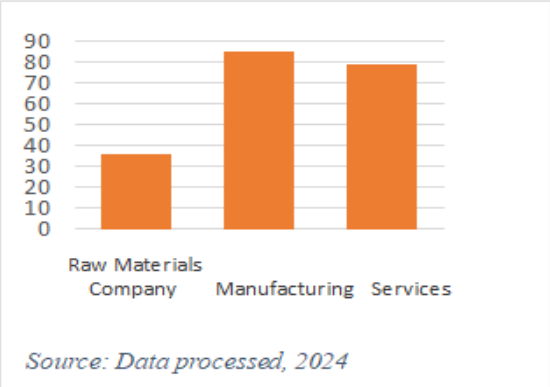
According to Masdiantini & Warasniasih (2020), the primary objective of every company is to generate profits. This action is taken with the intention of enabling the company to expand and sustain operations for a long time. In order to prevent the risk of bankruptcy, businesses that are actively conducting their activities need to be able to effectively manage their financial resources. Pryangan & Payamta (2020) states that the status of being financial distress is a defining characteristic of bankruptcy. An organization said to be in a state of financial distress when it is unable to fulfill its debt obligations, whether they are short-term or long-term (Ashraf et al., 2019). Many companies are unable to make a profit so they suffer losses and file an insolvency or bankruptcy (www.idx.co.id). Not a few companies from various sectors end up in the "Special Notation" category, data from the Indonesia Stock Exchange (IDX) regarding companies in the "Special Notation for the First Semester of 2023" is stated in the following diagram on figure 1.1 below, manufacturing companies are the companies that are most in the "red zone" of the Indonesia Stock Exchange, followed by service companies and raw material-producing companies. This phenomenon should be able to encourage companies in Indonesia, especially companies in the manufacturing industry, to increase productivity, and know the

Vol. 9, No.02; 2025

ISSN: 2456-7760

factors that cause financial distress to avoid the risk of bankruptcy, so that companies are able to survive without having to file a bankruptcy declaration, asset release, and business closure.

Figure 1.1 Data of Companies Included in the Special Notation of the Indonesia Stock Exchange



The uncertainty of global economic conditions and the prolonged impact of the Covid-19 Pandemic have caused the world economy to be shaken, especially the economies in developing countries (Natalia & Arni Rudiawarni, 2022). Research related to financial distress has been the focus of academics for the past few decades (Maulidina, 2014). Various kinds of research results may have been widely used as a guideline for companies to run their business so as not to experience financial distress, but the phenomenon shows a different fact that there are still many companies that experience financial difficulties or financial distress and are unable to fulfill the company's obligations in paying debts, so that it goes bankrupt and have to be delisted from the Indonesia Stock Exchange (Aryani et al., 2023).

The gap phenomenon proves that although there has been a lot of research on the theme of financial distress, there is still a research gap about the most appropriate financial distress measurement model and the main factors that cause financial distress that must be further elaborated. Researchers use this in order to obtain the most appropriate model to predict financial distress so that the results of the research can be useful, especially for companies. To the best of the author's knowledge, there are currently two major clusters that focus on financial distress measurement models. The first cluster is a research group that measures financial distress using the Altman Z-Score model, the Springate model, the Taffler model, the Zmijewski model, the Ohlson O-Score model, and others. The second group uses the traditional model of measuring financial distress, which is by looking at negative net income for several consecutive periods. The first group of researchers, as conducted by Iqbal & Asyriana (2020), compares the financial distress measurement model using the Springate Model with the Taffler Model, while Meiliawati & Isharijadi (2017) compare the financial distress measurement model of the Altman Z-Score model with the Springate model. The results of the study show that the Springate model is more accurate compared to the Altman Z-Score model in predicting financial distress. The results of different studies are shown by Ashraf et al., (2019), which suggests that Zmijewski's

Vol. 9, No.02; 2025

ISSN: 2456-7760

model is the most accurate in predicting financial distress. The second group of researchers, as conducted by Juniarti (2013), measuring financial distress using the condition that companies have negative net profit for two consecutive years in companies in the infrastructure, trade, transportation, hotel, and service sectors. Fachrudin (2021) Testing financial health using conditions, namely companies that have negative equity for 3 consecutive years. Kordestani et al., (2011) measuring financial distress using the terms of companies with negative net profit for three consecutive years. This research will focus more on the research model developed by Altman & Peck (1995) to see in more detail the most appropriate measurement of financial distress because in previous studies the Altman Z-Score measurement model still showed many different research results.

The second research gap in financial distress research is the factors that affect financial distress. Research on factors that affect financial distress has been carried out a lot, for example research conducted Balasubramanian et al., (2019); Safitri & Yuliana (2021); Rahmat (2020); Wardhani (2007); Tinoco & Wilson (2013) and Ashraf et al., (2019). Based on the results of the initial literature review conducted, previous research has discussed more about two main factors, namely corporate governance and financial ratios to financial distress, or factors that combine both between financial ratios and corporate governance to financial distress. Besides liquidity that still shows different results, the profitability ratio (return on assets) also shows inconsistent results. Mafiroh & Triyono (2016) and Fahlevi & Mukhibad (2018) finding research results that are different from Muflihah (2017) and Dance & Made (2019) that profitability measured using return on assets has no effect on financial distress. Liquidity and profitability still show inconsistencies in the results of the study, another financial ratio that is still rarely researched and still relevant to be further elaborated on the impact on financial distress is the activity ratio.
One type of activity ratio is TATO (Total Assets Turnover). Maulidina (2014) analyzing the impact of the business' effectiveness in using its resources as measured by the TATO ratio found that Total Assets Turnover had a positive effect on financial distress. Different results are shown by research Heniwati & Essen (2020) which found that the ratio of activities measured using TATO had no effect on financial distress.

1.2 Literature Review

Signal theory explains how a corporation communicates with shareholders or investors as users of financial statements, which are distributed in an open and transparent manner (Brigham & Houston, 2014). This signal intends to convey information regarding the company's status, enabling investors and the market to formulate varied evaluations of financial success (Ghozali, 2020). A key indicator that offers investors insight through financial statements is the company's financial status. Investors may receive information as either favorable or unfavorable (Dance & Made, 2019). Differences in information lead to information asymmetry between managers, who possess knowledge and risks associated with the company, and shareholders or investors, who have limited information on issues that appear within the company (Spence, 1973).

Vol. 9, No.02; 2025

ISSN: 2456-7760

1.2.1 Financial Distress

Financial distress represents a deterioration in a company's financial status preceding bankruptcy or liquidation (Platt & Platt, 2002); which results in the company's performance being disrupted. Mselmi et al. (2017) defining when a company's cash flow is inadequate to cover its essential short-term obligation is known as financial distress. According to Platt & Platt (2002), information when a company experiences financial distress has the use of being able to accelerate the company's actions before bankruptcy occurs and as an early warning in the event of bankruptcy in the future, and the company can take other action steps such as mergers or takeovers so that the company is able to pay debts and remanage the company's operations properly.

The Altman Z-Score model serves as a metric to assess a company's likelihood of insolvency. The significance of financial ratio analysis in predicting a company's insolvency or bankruptcy has been extensively researched. One of the methods employed is the Z-Score technique created by Altman. Altman's justification for employing discrimination analysis stemmed from the constraints of ratio analysis, which necessitated the independent evaluation of each ratio (Wulandari & Musdholifah, 2019).

The variables employed in the analysis of Altman's model for discrimination include Net Working Capital to Total Assets (WCTA), which indicates the firm's capacity to generate net working capital from its total assets; Retained Earnings to Total Assets (RETA), reflecting the firm's ability to produce retained earnings from its total assets; Earnings Before Interest and Tax to Total Assets (EBITTA), which shows the firm's capacity to generate profits from its assets prior to interest and tax obligations; the Market Value of Equity to Book Value of Debt, signifying the firm's ability to fulfill obligations based on market capital value; and Sales to Total Assets, which illustrates management's efficiency in utilizing the firm's total assets to generate sales and profits. During its evolution, Altman adjusted the Z-Score to accommodate various modifications in indicators, such as Net Working Capital to Total Assets (WCTA), Retained Earnings to Total Assets (RETA), Earnings Before Interest and Tax to Total Assets (EBITTA), and Market Value of Equity to Book Value of Debt (Dewi & Wahyuliana, 2019). The classifications of companies facing financial trouble or not, as indicated by the Z-Score value, are as follows:

1. The Z number less than 1.81 signifies that the organization is experiencing financial distress.
2. The Z rating between 1.81 and 2.99 signifies that the company is in a grey zone condition.
3. The Z value over 2.99 indicates that the organization is in good health.

1.3 Hypotheses Development

1.3.1 The Effect of Liquidity on Financial Distress

Liquidity serves as a management tool for ensuring accountability to the principle (Saputri & Asrori, 2019). A higher liquidity ratio indicates a more favorable financial position for the company, hence reducing the likelihood of financial trouble. This study employs the Current Ratio to assess liquidity, as a favorable current ratio signifies sound financial health. Conversely,

Vol. 9, No.02; 2025

ISSN: 2456-7760

an excessively high current ratio may suggest adverse conditions, indicating an excess of inventory relative to sales, resulting in diminished inventory turnover (Fahmi, 2012). The liquidity ratio is represented by the current ratio, which assesses the company's capacity to fulfill short-term obligations using its current assets. Altman (1968) shows that the liquidity ratio significantly impacts the identification of financial trouble. A higher liquidity ratio indicates a more favorable financial position for the company, hence reducing the likelihood of financial trouble. The subsequent hypothesis is supported by studies from Maulidina (2014) and Dance & Made (2019), indicating that the liquidity proxy, represented by the current ratio, exhibits a negative correlation with financial distress. A greater current ratio indicates that the company is unlikely to encounter financial trouble, since it can fulfill current liabilities with its current assets, so enhancing the company's value and signaling positively to investors.

H_1: Liquidity has a negative effect on financial distress.

1.3.2 The Effect of Profitability on Financial Distress

The profitability ratio, represented by return on assets (ROA), serves as a basis for decision-making as it reflects the company's profit (Saputri & Asrori, 2019). Elevated profitability signifies robust corporate success, as seen by substantial operational profits. When the company's profits are substantial, it can diminish its reliance on debt, so decreasing the likelihood of financial distress. This hypothesis is confirmed by studies conducted by Muflihah (2017) and Dewi & Wahyuliana (2019), which indicate that a lower ROA value correlates with diminished efficacy in a company's asset utilization for profit generation, potentially leading to losses that result in negative cash flow and subsequent financial distress over time. This results from the disparity between operational expenditures and generated revenue.

H_2: Profitability negatively affects financial distress.

1.3.3 The Effect of Total Assets Turnover on Financial Distress

The activity ratio, represented by total assets turnover (TATO), evaluates the efficiency and effectiveness of a company's operational activities, hence assessing its capability to conduct daily operations. A low total asset turnover signifies the company's ineffectiveness and inefficiency lack managing its assets during operational activities, leading to low performance and financial distress. This hypothesis is strengthened by studies conducted by Maulidina (2014), Mashudi et al. (2021), and Mafiroh & Triyono (2018), which indicate that TATO influences financial distress. If a company fails to leverage its assets to enhance sales, it will not generate income, thereby increasing the likelihood of financial distress.

H_3: Total Assets Turnover (TATO) has a negative effect on financial distress.

2. Research Methods

This study used financial distress as the dependent variable, with liquidity, profitability, and total assets turnover as independent variables. Sekaran & Bougie (2017) assert that the unit of analysis

Vol. 9, No.02; 2025

ISSN: 2456-7760

refers to the level of aggregation of data gathered in the subsequent phase of data analysis. This study's population consist of manufacturing companies registered on the Indonesia Stock Exchange from 2019 to 2022. The sample for this study comprises manufacturing companies listed on the Indonesia Stock Exchange from 2019 to 2022, selected according to specific criteria using the purposive selection approach, resulting in a total of 165 manufacturing companies as the research sample.

Table 2.1 Samples

No	Sample Criteria	Total
1	Manufacturing companies listed on the Indonesia Stock Exchange in 2019-2022	227
2	Manufacturing companies which not report an annual reports during 2019-2022	(43)
3	Companies that have complete information needed in the research sample	(19)
	Total number of companies	165
	Number of Years of observation	4
	Total Data	660
	Outlier Data	(43)
	Total sample after outliers	617

Source: Data Processed, 2023

2.1 Operational Definition and Measurement of Variables

2.1.1 Dependent Variable

This study assessed financial distress by a dummy variable, assigning a score of 0 to companies deemed healthy and a code of 1 to those experiencing financial distress, as determined by the Altman Z-Score algorithm. Altman & Peck (1995):

$$Z = 6,56\,X_1 + 3,26\,X_2 + 6,72\,X_3 + 1,05\,X_4$$

Z represents the bankruptcy index. X1 represents Working Capital as a proportion of Total Assets, X2 denotes Retained Earnings relative to Total Assets, X3 signifies Earnings Before Interest and Taxes in relation to Total Assets, and X4 indicates the Book Value of Equity compared to the Book Value of Debt.

Determination of dummy variables:

1. The Z value of < 1.81 is categorized as a company that experiences financial distress given a number of 1.
2. The Z value of > 1.81 is categorized as a healthy company or does not experience financial distress given a number of 0.

The grey zone, defined by the range 1.81 < Z < 2.99, falls under the category of healthy companies. This indicates that, while the company is anticipated to have challenges in the near future, it now maintains a sound financial status.

Vol. 9, No.02; 2025

ISSN: 2456-7760

2.1.2 Independent Variables

Liquidity (Liquid)

Liquidity is a ratio that shows the company's ability to pay its short-term obligations. The measurement proxy used to measure the liquidity ratio in this study is the Current Ratio (Saputri & Asrori, 2019). Here is the calculation formula:

$$Liquid = \frac{Current\ Asset_{i,t}}{Current\ Liabilities_{i,t}} \times 100\%$$

Profitability (Prof)

Profitability is a ratio that evaluates a company's capacity to generate profits and serves as an indicator of managerial effectiveness. This study employs Return on Assets (ROA) as the measuring proxy for the profitability ratio (Dance & Made, 2019). Presented herein is the formula for calculation:

$$Prof = \frac{Net\ Income_{i,t}}{Total\ Assets_{i,t}} \times 100\%$$

Total Assets Turnover (TATO)

Total Asset Turnover is classified as an activity ratio. The activity ratio evaluates the company's capacity to do operational or everyday operations. A greater asset rotation rate signifies that the organization has utilized its assets effectively to generate sales revenue (Heniwati & Essen, 2020). The formula for calculation is as follows:

$$TATO = \frac{Sales_{i,t}}{Total\ Assets_{i,t}} \times 100\%$$

2.1.3 Control Variables

This study uses leverage and firm size as control variables. The measurement proxy used to measure the leverage ratio (Lev) in this study is the debt-to-assets ratio or the ratio of total liabilities to total assets (Gunawan et al., 2019). Meanwhile, Firm size is an indicator that reflects the entire value of assets possessed by the organization. The magnitude of a firm can be assessed by the extent of its assets. Asset size is quantified as the logarithm of total assets (Annither et al., 2020).

2.2 Research Model

Logistic regression analysis is employed when the dependent variables in a study are assessed qualitatively (Ghozali & Ratmono, 2013). Logistic regression analysis is a statistical method that evaluates the likelihood of dependent variables being predictable based on their independent factors. Logistic regression methodology does not necessitate normality testing for independent variables (Ghozali, 2016). This work presents a model of regression equations:

$$Ln\frac{FD}{1-FD} = \beta_0 + \beta_1\, Liquid_{i,t} + \beta_2\, Prof_{i,t} + \beta_3\, TATO_{i,t} + \beta_4\, Lev_{i,t} + \beta_5\, FirmSize_{i,t} + \varepsilon_{i,t}$$

Vol. 9, No.02; 2025

ISSN: 2456-7760

Explanation:

$FD_{i,t}$ = *Financial Distress* of the company *i* year *t*,
$Liquid_{i,t}$ = Company liquidity *i* year *t*,
$Prof_{i,t}$ = Company profitability *i* year *t*,
$TATO_{i,t}$ = *Total Assets Turnover* of the company *i* year *t*,
$Lev_{i,t}$ = *Company leverage i* year *t*, and
$FirmSize_{i,t}$ = Company size *i* year *t*.

3. Results

3.1 Test Assumptions in Logistic Regression

The subsequent phase involves testing assumptions in logistic regression. The requisite assumption tests are the Hosmer and Lemeshow Goodness of Fit, Overall Model Fit, and McFadden R-Squared. This is an evaluation of the Hosmer and Lemeshow Goodness of Fit test scores, presented as follows;

Table 3.1 Regression Model Feasibility Test

H-L Statistic	14.6396	Prob. Chi-Sq(8)	0.0665
Andrews Statistic	12.2718	Prob. Chi-Sq(10)	0.2673

Source: Data processed, 2024

The results of the regression model feasibility test, as indicated in table 3.1, reveal a statistical H-L value of 14.6396 with a significance probability of 0.0665. The significance probability value exceeds 0.05, indicating that the model is acceptable and capable of accurately predicting its observational data.

The Overall Model Fit in this test uses a likelihood ratio (LR) statistical test, which aims to assess whether the hypothetical regression equation model is consistent with the data or not.

Table 3. 2 Likelihood Ratio Test Results

McFadden R-squared	0.251	Mean dependent var	0.303
S.D. dependent var	0.460	S.E. of regression	0.387
Akaike info criterion	0.955	Sum squared resid	90.981
Schwarz criterion	1.033	Log likelihood	-283.488
Hannan-Quinn criter.	0.985	Deviance	566.976
Restr. Deviance	756.999	Restr. log likelihood	-378.499
LR statistic	190.022	Avg. log likelihood	-0.459
Prob(LR statistic)	0.000		

Source: Data processed, 2024.

Vol. 9, No.02; 2025

ISSN: 2456-7760

The examination of table 3.2 indicates that the probability value (LR statistic) is 0.0000, which is below the significance threshold of 0.05. This indicates that independent variables collectively influence dependent variables.

In Eviews, the coefficient of determination for logistic regression use McFadden R-Squared. A small value of the determination coefficient indicates that the independent variable has limited capacity to explain the dependent variable, whereas a large value suggests that the independent variables can fully account for the information used in predicting the dependent variable. The subsequent results pertain to the determination coefficient test conducted in this study.

Table 3. 3 Determination Coefficient Test Results

McFadden R-squared	0.251	Mean dependent var	03
S.D. dependent var	0.460	S.E. of regression	87
Akaike info criterion	0.955	Sum squared resid	.981
Schwarz criterion	1.033	Log likelihood	3.488
Hannan-Quinn criter.	0.985	Deviance	5.976
Restr. Deviance	756.999	Restr. log likelihood	8.499
LR statistic	190.022	Avg. log likelihood	459
Prob(LR statistic)	0.000		

Source: Data processed, 2024.

The McFadden R-Squared value is 0.251, as seen by the results above. The results indicate that independent variables, including liquidity, profitability, and TATO, account for 25.1% of the financial distress variable in manufacturing companies listed on the Indonesia Stock Exchange, with the remaining variance attributed to external factors not included in the research model.

3.2 Logistic Regression Model

The subsequent phase in data analysis involves formulating a logistic regression equation once the requisite assumptions of logistic regression are satisfied. This study presents the outcomes of the regression model equation test.

Table 3. 4 Logistic Regression Equation Model

Variable	**Coefficient**	**Std. Error**	**z-Statistic**	**Prob.**
C	1.501	0.819	1.832	0.067
Liquid	-0.216	0.089	-2.426	0.015
Prof	-12.175	1.933	-6.298	0.000
TATO	-0.533	0.194	-2.745	0.006
Lev	1.870	0.708	2.641	0.008
FirmSize	-0.124	0.031	-3.954	0.000

Source: Data processed, 2024.

Vol. 9, No.02; 2025

ISSN: 2456-7760

Based on table 3.4, the results of the logistic regression model test can be made with the following model equations.

$$Ln\frac{FD}{1-FD} = 1{,}501 - 0{,}216Liquid - 12{,}175Prof - 0{,}533TATO + 1{,}870Lev - 0{,}124FirmSize + \varepsilon$$

3.3 Research Hypothesis Testing

3.3.1 Partial Model Significance Test (Wald Test)

The partial significance test in multiple linear regression employs the t test, but in logistic regression, it is conducted using the Wald test. The Wald test evaluates the Wald statistic, which follows a chi-square distribution. The determination regarding the hypothesis is based on the significant probability value of the test. If the statistical likelihood value of the Wald test is below 0.05, the null hypothesis is accepted. This indicates that the independent variable exerts a partly significant influence on the dependent variable. If the significance probability value of the Wald test exceeds 0.05, the independent variable does not significantly affect the dependent variable. The subsequent table presents partial significance test results.

Table 3. 5 Partial Significance Test (Wald Test)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	1.501	0.819	1.832	0.067
Liquid	-0.216	0.089	-2.426	0.015
Prof	-12.175	1.933	-6.298	0.000
TATO	-0.533	0.194	-2.745	0.006
Lev	1.870	0.708	2.641	0.008
FirmSize	-0.124	0.031	-3.954	0.000

Source: Data processed, 2024.

Based on table 3.5, the results of the hypothesis are obtained using logistic regression as follows: H_1: Liquidity influences financial distress; a significant probability value of 0.015 is found, which is less than 0.05 (0.015 < 0.05), hence the hypothesis is accepted. H_1 indicates a substantial impact of liquidity variables on financial distress.

H_2: Profitability influences financial distress, with a significant probability value of 0.000. The significance value is below 0.05 (0.000 < 0.05), hence hypothesis 2 is accepted, indicating a substantial impact of the profitability variable on financial distress.

H_3: The Total Assets Turnover influences financial distress, evidenced by a significance probability value of 0.006, which is less than 0.05 (0.006 < 0.05); thus, Hypothesis 3 is accepted. This indicates the substantial impact of the total asset turnover variable on financial distress.

Vol. 9, No.02; 2025

ISSN: 2456-7760

3.3.2 Omnibus Test of Model Coefficients

The Omnibus Test of Model Coefficients was employed to conduct simultaneous regression model testing in logistic regression. This test seeks to evaluate the regression equation model that incorporates independent variables concurrently, illustrating superiority over the prior basic model that excludes independent variables. In the Omnibus test, decision-making involved comparing the significance probability value (Sig.) to a significance level of 0.05. If the significance value is below 0.05, the regression model with simultaneously significant independent variables is superior in data fitting compared to the simple model. If the probability value exceeds 0.05, the null hypothesis is rejected, indicating that the regression model is unimportant or inadequate in fitting the data relative to the simple model. The subsequent outcomes pertain to the concurrent evaluation of the regression equation.

Table 3. 6 Simultaneous Test of Regression Equation

McFadden R-squared	0.251	Mean dependent var	0.303
S.D. dependent var	0.460	S.E. of regression	0.387
Akaike info criterion	0.955	Sum squared resid	90.981
Schwarz criterion	1.033	Log likelihood	-283.488
Hannan-Quinn criter.	0.985	Deviance	566.976
Restr. Deviance	756.999	Restr. log likelihood	-378.499
LR statistic	190.022	Avg. log likelihood	-0.459
Prob(LR statistic)	0.000		

Source: Data processed, 2024.

The table indicates a significance probability value of Prob (LR statistic) equal to 0.000. The significance value is below 0.05, hence H_0 is accepted. This indicates that independent factors in the regression model can concurrently predict financial suffering. The model performs more effectively with independent variables like liquidity, profitability, and total asset turnover.

Table 3. 7 Results of Hypothesis Testing Analysis

No.	**Variable Name**	**B**	**Sig.**	**Information**
1.	Liquidity (Liquid)	-0.216	0.015	H_1 Accepted
2.	Profitability (Prof)	-12.175	0.000	H_2 Accepted
3.	*Total Assets Turnover* (TATO)	-0.533	0.006	H_3 Accepted

Source: Data processed, 2024.

3.4 Additional Analysis

Table 3. 8 Results of Hypothesis Testing Analysis on *Basic Industry and Chemicals*

No.	Variable Name	B	Sig.	Information
1.	Liquidity (Liquid)	-0.398	0.048	H_1 Accepted
2.	Profitability (Prof)	-16.479	0.001	H_2 Accepted
3.	*Total Assets Turnover* (TATO)	-1.164	0.044	H_3 Accepted

Source: Data processed, 2024.

Table 3. 9 Results of Hypothesis Testing Analysis on *Consumer Goods*

No.	Variable Name	B	Sig.	Information
1.	Liquidity (Liquid)	-0.197	0.111	H_1 Rejected
2.	Profitability (Prof)	-7.955	0.002	H_2 Accepted
3.	*Total Assets Turnover* (TATO)	-0.108	0.530	H_3 Rejected

Source: Data processed, 2024.

Table 3. 10 Results of Hypothesis Testing Analysis in *Miscellaneous Industries*

No.	Variable Name	B	Sig.	Information
1.	Liquidity (Liquid)	-0.454	0.078	H_1 Rejected
2.	Profitability (Prof)	-13.954	0.004	H_2 Accepted
3.	*Total Assets Turnover* (TATO)	-5.321	0.000	H_3 Accepted

Source: Data processed, 2024.

4. Discussion

4.1 The Effect of Liquidity on Financial Distress

Based on the results, the coefficient value is -0.216 with a significance value of 0.015. The significance level of the liquidity variable is smaller than 0.05 (0.015 <0.05), thus H_1 is accepted. This shows that liquidity has a significant effect on financial distress with a negative relationship direction. These results explain that if high liquidity indicates that the company's financial condition is good, it will reduce the possibility of financial distress.

Based on the results of hypothesis testing, this study supports previous research which found that liquidity has a significant negative effect on financial distress. This study supports the research of Maulidina (2014) and Dance & Made (2019) show that liquidity has a significant negative effect on financial distress. The results of this study indicate that liquidity proxied by the current ratio can predict the possibility of financial distress in manufacturing companies in Indonesia in 2019-2022. Maulidina (2014) states that a high liquidity ratio value indicates that the company can fulfill its short-term obligations well (on time), so that the company can avoid financial distress.

Vol. 9, No.02; 2025

ISSN: 2456-7760

4.2 The Effect of Profitability on Financial Distress

Based on the results, the coefficient value is -12.175 with a significance value of 0.000. The significance level of the profitability variable is smaller than 0.05 (0.000 <0.05), thus H_2 is accepted. This shows that profitability has a significant effect on financial distress with a negative relationship direction. These results explain that if high profitability shows that the company's performance is effective in managing its assets to generate profits and reduce the use of debt, it will reduce the possibility of financial distress.

Based on the results of hypothesis testing, this study supports previous research which found that profitability has a significant negative effect on financial distress. This study supports the research of Muflihah (2017) and Dewi & Wahyuliana (2019) show that profitability has a significant negative effect on financial distress.

Profitability is a ratio that shows the company's ability to generate profits. The higher the profitability ratio value proxied by ROA (Return on Assets), the more effectively the company utilizes its assets so that it can generate optimal profits. If the company has a large profit, it is able to minimize costs. Companies with high ROA values have made efficiency which has an impact on the adequacy of funds for the company, so that the company avoids financial distress.

4.3 The Effect of Total Assets Turnover on Financial Distress

Based on the results, the coefficient value is -0.533 with a significance value of 0.006. The significance level of the total assets turnover variable is smaller than 0.05 (0.006 <0.05), thus H_3 is accepted. This shows that total assets turnover has a significant effect on financial distress with a negative relationship direction. These results explain that if the total assets turnover is high, it shows that the company can manage its assets effectively and efficiently in its operational activities, so that it will reduce the possibility of financial distress.

Based on the results of hypothesis testing, this study supports previous research which found that total assets turnover has a significant negative effect on financial distress. This study supports the research of Maulidina (2014), Mafiroh & Triyono (2018), and Mashudi et al. (2021) which found that total assets turnover has a significant negative effect on financial distress. A high total asset turnover (TATO) value indicates that the company is able to generate high sales from each of its assets. If the company is able to generate large total sales, it will have an impact on large profits for the company.

4.4 Additional Analysis

The novelty value in this study is that in addition to analyzing the effect of liquidity, profitability, and total asset turnover on financial distress in manufacturing companies, it also tests the manufacturing company sector according to JASICA (Jakarta Stock Industrial Classification) including the basic industry and chemicals, consumer goods, and miscellaneous industries sectors.

Vol. 9, No.02; 2025

ISSN: 2456-7760

The effect of liquidity on financial distress in the basic industry and chemicals sector is accepted with a significance of 0.048 where the significance level is smaller than 0.05, while in the consumer goods and miscellaneous industries sector shows the hypothesis is rejected. This can happen because there are still many companies in the consumer goods and miscellaneous industries sectors whose financial condition is categorized as healthy, so the possibility of financial distress is very low.

The effect of profitability on financial distress in the basic industry and chemicals, consumer goods, and miscellaneous industries sectors is accepted. This result shows the significance of each sector below 0.05, namely 0.001; 0.002; and 0.004; and shows the negative direction of the influence of the coefficient value of the profitability variable in the three sectors. This shows that when the company's profit is high, the company can reduce the use of debt which can reduce the occurrence of financial distress.

The effect of total assets turnover on financial distress in the basic industry and chemicals and miscellaneous industries sectors is accepted with a significance value of less than 0.05, namely 0.044 and 0.000, while the hypothesis in the consumer goods sector is rejected. This shows that total asset turnover in the consumer goods sector is rejected because of the possibility of low total asset turnover during the covid-19 pandemic, so that companies cannot manage their assets effectively and efficiently in operational activities which can lead to financial distress.

5. Conclusions

This study aims to determine the effect of liquidity, profitability, and total asset turnover on financial distress in Indonesian manufacturing companies from 2019 to 2022. Additional results that analyze each financial ratios on financial distress show interesting results and become a novelty in this study. Previous research only focused on analyzing the main sector, while this study adds contribution about financial distress in each manufacturing sub-sector in Indonesia. Based on the findings from the data analysis and discussion that has been carried out, it can be concluded. Liquidity has a significant negative effect on financial distress in manufacturing companies. Liquidity also has a negative effect on financial distress in manufacturing companies within the basic industry and chemicals sector, while it had no significant effect in the consumer goods and miscellaneous industries sector. The results indicate that high liquidity suggests a favorable financial condition for the company, it will reduce the possibility of financial distress.
Profitability has a negative effect on financial distress simultaneously in manufacturing companies, and partially in those within the basic industry and chemicals, consumer goods, and miscellaneous sectors. The results indicate that high profitability reflects the company's performance is effective in asset management to create profits and minimize debt usage, it will reduce the possibility of financial distress.

Total asset turnover has a significantly effects financial distress with a negative direction. The results indicate that a high total asset turnover signifies the company's successful and efficient management of its assets in operational activities, hence diminishing the likelihood of financial distress. A high total asset turnover (TATO) value indicates that the company is able to generate

Vol. 9, No.02; 2025

ISSN: 2456-7760

high sales from each of its assets. If the company is able to generate large total sales, it will have an impact on large profits for the company.

In this study, there are limitations and suggestion for future research. The McFadden R-Squared value is 0.251, indicating that 25.1% of the variance in the dependent variable is accounted for by the independent variable, while 74.9% is attributed to external factors not included in the study model. This indicates that other characteristics must be explored to elucidate the prediction of financial distress.

From the findings of this study, the author aims to offer a framework for subsequent research about financial distress. The limitations of this study present an opportunity for future research by incorporating other independent factors to achieve more thorough results. Additional research may use a proxy for financial distress and expand the sample to include entities not listed on the Indonesia Stock Exchange to assess financial distress.

The findings of this study may serve as a reference for current and prospective investors seeking investment opportunities. Investors must use caution when selecting a company and avoid investing in those anticipated to have financial distress. This research can assist corporate management in identifying indicators of financial troubles to implement measures that prevent financial distress, which may lead to bankruptcy.

References

Altman, E. I. (1968). Financial Ratios, Discriminant Analysis And The Prediction Of Corpporate Bankruptcy. *The Journal Of Finance*, *XXIII*(4), 589–609.

Altman, E. J. H., & Peck, M. (1995). *Emerging Markets Corporate Bonds: A Scoring Systems*. Salomon Brothers Inc.

Annither, Johann, M. K., Hidayat, A. A., & Farhana, S. (2020). The Impact of Ownership Structure on The Indicator of Financial Distress in Indonesian Companies. In *Jurnal Akuntansi dan Bisnis* (Vol. 20, Issue 2). www.jab.fe.uns.ac.id

Aryani, Y. A., Septendita, L., & Arifin, T. (2023). Human Intellectual Capital, Age of Directors, and Financial Distress of Service Companies. *Assets: Jurnal Akuntansi Dan Pendidikan*, *12*(1), 1. https://doi.org/10.25273/jap.v11i2.10693

Ashraf, S., G. S. Félix, E., & Serrasqueiro, Z. (2019). Do Traditional Financial Distress Prediction Models Predict the Early Warning Signs of Financial Distress? *Journal of Risk and Financial Management*, *12*(2), 55. https://doi.org/10.3390/jrfm12020055

Balasubramanian, S. A., Radhakrishna, G. S., Sridevi, P., & Natarajan, T. (2019). Modeling corporate financial distress using financial and non-financial variables: The case of Indian listed companies. *International Journal of Law and Management*, *61*(3–4), 457–484. https://doi.org/10.1108/IJLMA-04-2018-0078

Brigham, E. F., & Houston, J. F. (2014). *Fundamental of Financial Management* (14th ed.). South-Western Cengage Learning.

Dance, M., & Made, S. I. (2019). Financial Ratio Analysis in Predicting Financial Conditions Distress in Indonesia Stock Exchange. *Russian Journal of Agricultural and Socio-Economic*

Sciences, *86*(2), 155–165. https://doi.org/10.18551/rjoas.2019-02.18

Dewi, A. R. S., & Wahyuliana, E. (2019). Analysis Of Profit Performance And Asset Management To Financial Distress Bakrie Group Company Listing In Indonesia Stock Exchange. *International Journal of Scientific & Technology Research*, *8*(03). www.ijstr.org

Fachrudin, K. A. (2021). Insolvency and financial health prediction model for the listed companies on the Indonesia Stock Exchange. *Jurnal Akuntansi & Auditing Indonesia*, *25*(1), 24–32. https://doi.org/10.20885/jaai.vol25.iss1.art3

Fahlevi, E. D., & Mukhibad, H. (2018). Penggunaan Rasio Keuangan dan Good Corporate Governance untuk Memprediksi Financial Distress. *Jurnal Reviu Akuntansi Dan Keuangan*, *8*(2), 147. https://doi.org/10.22219/jrak.v8i2.34

Fahmi, I. (2012). *Financial Statement Analysis*. CV Alfabeta.

Ghozali, I. (2016). *Aplikasi analisis multivariate dengan program IBM SPSS 23*. Badan Penerbit Universitas Diponegoro Semarang.

Ghozali, I. (2020). *25 Teori Besar Ilmu Manajemen, Akuntansi, dan Bisnis*. Yoga Pratama.

Ghozali, I., & Ratmono, D. (2013). *Analisis multivariat dan ekonometrika: Teori, konsep, dan aplikasi dengan EViews 8*. Badan Penerbit Universitas Diponegoro Semarang.

Gunawan, A. W., Assagaf, A., Sayidah, N., & Mulyaningtyas, A. (2019). Financial Distress di BUMN Indonesia dan Faktor-Faktor yang Mempengaruhi. *EKUITAS (Jurnal Ekonomi Dan Keuangan)*, *3*(2), 226–243. https://doi.org/10.24034/j25485024.y2019.v3.i2.4135

Heniwati, E., & Essen, E. (2020). Which Retail Firm Characteristics Impact On Financial Distress? *Jurnal Akuntansi Dan Keuangan*, *22*(1), 40–46. https://doi.org/10.9744/jak.22.1.30-36

Iqbal, A., & BR. P, S. A. (2020). Deteksi Kesehatan Keuangan Badan Usaha Milik Negara (BUMN) Menggunakan Financial Discriminant Models. *Jurnal ASET (Akuntansi Riset)*, *12*(2), 289–300. https://doi.org/10.17509/jaset.v12i2.28072

Juniarti, J. (2013). Good Corporate Governance and Predicting Financial Distress Using Logistic and Probit Regression Model. *Jurnal Akuntansi Dan Keuangan*, *15*(1), 43–50. https://doi.org/10.9744/jak.15.1.43-50

Kordestani, G., Biglari, V., & Bakhtiari, M. (2011). Ability of combinations of cash flow components to predict financial distress. *Business: Theory and Practice*, *12*(3), 277–285. https://doi.org/10.3846/btp.2011.28

Mafiroh, A., & Triyono, T. (2018). Pengaruh Kinerja Keuangan dan Mekanisme Corporate Governance terhadap Financial Distress (Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Periode 2011-2014). *Riset Akuntansi Dan Keuangan Indonesia*, *1*(1), 46–53. https://doi.org/10.23917/reaksi.v1i1.1956

Masdiantini, P. R., & Warasniasih, N. M. S. (2020). Laporan Keuangan dan Prediksi Kebangkrutan Perusahaan. *Jurnal Ilmiah Akuntansi*, *5*(1), 196. https://doi.org/10.23887/jia.v5i1.25119

Mashudi, M., Himmati, R., Ardillah, I. F. R., & Sarasmitha, C. (2021). Financial Distress Prediction in Infrastructure, Utilities, and Transportation Sector Companies 2015-2020. *Jurnal Keuangan Dan Perbankan*, *25*(3), 656–670. https://doi.org/10.26905/jkdp.v25i3.5858

Maulidina, D. (2014). Faktor-Faktor Yang Mempengaruhi Financial Distress Pada Perusahaan

Vol. 9, No.02; 2025

ISSN: 2456-7760

Manufaktur Yang Terdaftar Di Bei. *Media Riset Akuntansi, Auditing & Informasi*, *14*(3), 89–106. https://doi.org/10.25105/mraai.v14i3.2814

Meiliawati, A., & Isharijadi, I. (2017). Analisis Perbandingan Model Springate Dan Altman Z Score Terhadap Potensi Financial Distress (Studi Kasus Pada Perusahaan Sektor Kosmetik Yang Terdaftar Di Bursa Efek Indonesia). *Assets: Jurnal Akuntansi Dan Pendidikan*, *5*(1), 15. https://doi.org/10.25273/jap.v5i1.1183

Mselmi, N., Lahiani, A., & Hamza, T. (2017). Financial distress prediction: The case of French small and medium-sized firms. *International Review of Financial Analysis*, *50*, 67–80. https://doi.org/10.1016/j.irfa.2017.02.004

Muflihah, I. Z. (2017). Analisis Financial Distress Perusahaan Manufaktur Di Indonesia dengan Regresi Logistik. *Majalah Ekonomi*, *XXII*(2), 254–269.

Natalia, I., & Arni Rudiawarni, F. (2022). The Effect of Board Size, Institutional Ownership and Insolvency Risk on Financial Distress Before and During Covid-19. *JDA Jurnal Dinamika Akuntansi*, *14*(2), 110–125.

Platt, H. D., & Platt, M. B. (2002). Predicting corporate financial distress: Reflections on choice-based sample bias. *Journal of Economics and Finance*, *26*(2), 184–199. https://doi.org/10.1007/bf02755985

Pryangan, W. W., & Payamta. (2020). Pengaruh Rasio CAMEL Terhadap Potensi Financial Distress. *Jurnal ASET (Akuntansi Riset)*, *12*(2), 332–345. https://doi.org/10.17509/jaset.v12i2.29610

Rahmat, R. (2020). Analisis Financial Distress Menggunakan Model Altman Z-Score, Springate Zmijewski, Grover dan Penilaian Kesehatan Bank Metode Camel. *Jurnal ASET (Akuntansi Riset)*, *12*(1), 1–16. https://doi.org/10.17509/jaset.v12i1.23062

Safitri, M. G., & Yuliana, I. (2021). The Effect of Profitability and Leverage on Financial Distress with Inflation as Moderating. *Jurnal ASET (Akuntansi Riset)*, *13*(1), 134–143. https://doi.org/10.17509/jaset.v13i1.31368

Saputri, L., & Asrori. (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. https://doi.org/10.15294/aaj.v8i1.25887

Sekaran, U., & Bougie, R. (2017). *Metode Penelitian untuk Bisnis: Pendekatan Pengembangan-Keahlian* (6th ed.). Salemba Empat.

Spence, M. (1973). Job Market Signalling. *The Quarterly Journal of Economics*, *87*(3), 355–374.

Tinoco, M. H., & Wilson, N. (2013). Financial distress and bankruptcy prediction among listed companies using accounting, market and macroeconomic variables. *International Review of Financial Analysis*, *30*, 394–419. https://doi.org/10.1016/j.irfa.2013.02.013

Wardhani, R. (2007). Mekanisme Corporate Governance Dalam Perusahaan Yang Mengalami Permasalahan Keuangan. *Jurnal Akuntansi Dan Keuangan Indonesia*, *4*(1), 95–114. https://doi.org/10.21002/jaki.2007.05

Wulandari, W., & Musdholifah, M. (2019). Studi Pengaruh Corporate Governance, Likuiditas dan Profitabilitas Terhadap Financial Distress Pada Perusahaan Sub Sektor Property dan Real Estate di Indonesia. *Jurnal Ilmu Manajemen*, *7*(4), 1104–1117.