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FINANCIAL FACTORS THAT REDUCE FINANCIAL DISTRESS IN THE MANUFACTURING INDUSTRY

LIDYA OCTAVIANY
MARTDIAN RATNASARI (martdianratnasari@gmail.com)

Department of Accounting, Sekolah Tinggi Manajemen PPM, Indonesia

A B S T R A C T

This research is motivated by the limited literature that discusses financial factors that can reduce financial distress in manufacturing companies in Indonesia, so it aims to find out what financial factors have an influence on reducing financial distress using the observations of 31 companies over 5 years (2018–2022) with a total of 155 samples. This research uses 1 dependent variable, namely Decrease in Financial Distress (difference in FD per year), and 4 independent variables, namely profitability (ROA), liquidity (CR), leverage (DAR), and sales growth (SG). We use multiple linear regression as the research method to determine the impact of each independent variable on the dependent variable. The results of this research show that profitability and liquidity have a positive effect on reducing financial distress, while leverage and sales growth have no effect on reducing financial distress. Apart from that, this research also proves that there is a decrease in financial distress in manufacturing companies in Indonesia for the 2018–2022 period. Therefore, based on current research findings, companies can adopt various strategies to alleviate their financial distress. These strategies include optimizing resource utilization, minimizing short-term debt, maximizing the utilization of current assets, and ensuring adequate cash reserves to fulfill their immediate obligations.
Keywords: *financial factors, financial distress, bankruptcy*

Penelitian ini dilatarbelakangi oleh terbatasnya literatur yang membahas mengenai faktor-faktor keuangan yang dapat menurunkan *financial distress* pada perusahaan manufaktur di Indonesia sehingga bertujuan untuk mencari tahu apa saja faktor-faktor keuangan yang berpengaruh dalam menurunkan *financial distress* yang menggunakan dasar observasi 31 perusahaan selama 5 tahun (2018–2022) dengan total 155 sampel. Penelitian ini menggunakan satu variabel dependen, yaitu Penurunan *Financial Distress* (selisih FD per tahun) dan empat variabel independen, yaitu profitabilitas (ROA), likuiditas (CR), *leverage* (DAR), *sales growth* (SG). Metode penelitian yang digunakan adalah regresi linear berganda untuk mencari tahu pengaruh dari masing-masing variabel independen terhadap variabel dependen yang ada. Hasil penelitian ini menunjukkan bahwa profitabilitas dan likuiditas berpengaruh positif dalam menurunkan *financial distress*, sedangkan *leverage* dan *sales growth* tidak berpengaruh dalam menurunkan *financial distress*. Selain itu, penelitian ini juga membuktikan bahwa terdapat penurunan *financial distress* pada perusahaan manufaktur di Indonesia periode 2018–2022. Oleh sebab itu, dari hasil penelitian yang ada, terdapat beberapa solusi yang dapat diterapkan oleh perusahaan dalam menurunkan *financial distress* perusahaan, yaitu dengan mengoptimalkan penggunaan sumber daya, mengurangi hutang jangka pendek, dan mengoptimalkan penggunaan aset lancar serta menjaga tingkat kas yang cukup untuk memastikan perusahaan dapat memenuhi kewajiban jangka pendeknya.
Kata kunci: faktor keuangan, kesulitan keuangan, kebangkrutan

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INTRODUCTION

Changes and developments that occur in the business environment make business competition between companies increasingly stringent so companies are competing to innovate in order to maximize company profits (Putra & Serly, 2020). However, there are several companies that are not ready to face this condition and end up experiencing financial distress which can lead to bankruptcy (Nugroho, Sutrisno, & Mardiati, 2020). Financial distress itself is a condition in which a company is unable to meet its financial obligations (Kristyaningsih, Hariyani, & Sudrajat, 2021).

Based on previous studies, several indicators that indicate that a company is experiencing financial distress are low profitability, low liquidity, high leverage, slow sales growth, small company size, negative cash flow, difficulty paying off debt, and decreased financial performance over several years (Sutra & Mais, 2019; Purba & Achmad, 2023). Internal and external factors can caused this condition. Internal factors include declining sales, high debt levels, and poor management, while external factors include unexpected economic conditions, regulatory changes, and natural disasters (Sutra & Mais, 2019).

According to Statistics Indonesia (BPS), Indonesia's economic growth (measured by GDP) decreased in the first quarter of 2020 by -2.07% and peaked in the second quarter of 2020 with a GDP growth rate of -5.32%. The COVID-19 outbreak caused a decline in economic activity at the end of 2019. This outbreak caused various industrial sectors to experience a decrease in revenue due to unforeseen conditions. This situation makes it challenging for numerous companies to settle their debts, reduce their profitability and cash flow, struggle to secure financing or credit, and face a decline in investor confidence (Armenda & Hertina, 2023). Financial distress can have an impact, both on individual companies and on the Indonesian economy as a whole.

According to research by Ryu & Fan (2023), Sayidah, Assagaf, & Faiz (2020), and Kristyaningsih, Hariyani, & Sudrajat (2021), financial distress is an emotional response to economic difficulties. This emotional response creates psychological pressure, which in turn prompts managerial actions such as earnings manipulation and tax avoidance to optimize profits. The agency theory explains the relationship between the principal (shareholders) and the agent (management) in a company. This theory closely relates to financial distress, the decline stage of a company's financial condition prior to bankruptcy. It suggests that the agent may prioritize short-term profits over long-term company growth to boost their own compensation, a decision that can lead to financial distress (Ammar & Gafsi, 2021). Various financial factors, such as profitability, liquidity, leverage, and sales growth, can contribute to financial distress. Research has consistently shown that these factors play a significant role in determining the likelihood of financial distress in companies (Chan & Abdul-Aziz, 2017; Farooq, Noor, Qureshi, & Bhutta, 2021). Profitability is a key indicator of a company's financial health; a decline in profitability can indicate a company's inability to generate sufficient revenue to cover its expenses, leading to financial distress. Otherwise, high profitability can be a sign of a company's financial stability and ability to manage its resources effectively. Liquidity is another critical factor in determining financial distress. A company with low liquidity may struggle to meet its short-term liabilities, leading to

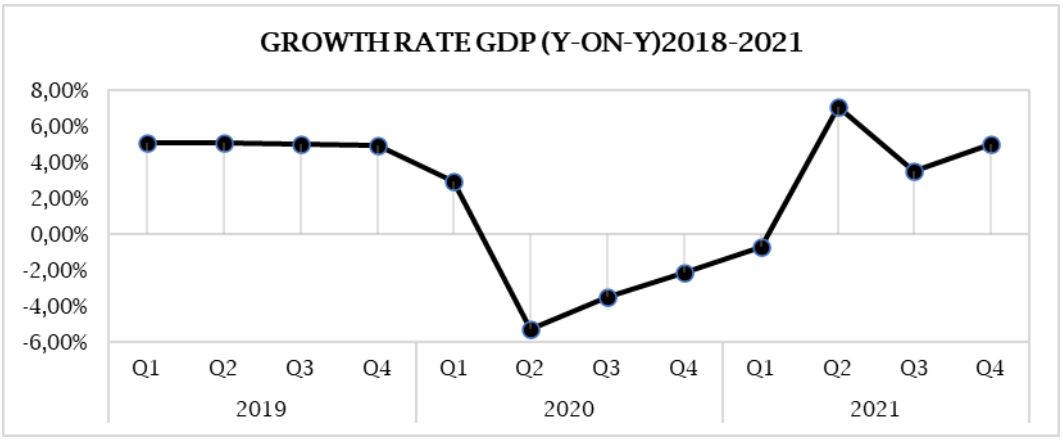


Figure. 1.
Growth Rate GDP 2018-2021.
Source: Statistics Indonesia (BPS)

financial distress. Leverage also has a significant impact on financial distress; low leverage can indicate a company's ability to effectively manage its debt and avoid financial distress. Sales growth refers to the increase in a company's sales over a specific period. High sales growth can indicate a company's ability to expand its market share and increase its revenue, reducing the likelihood of financial distress. As a result, management must understand the determinants of financial distress in order to find solutions to minimize its occurrence (Aviantara, 2023). Financial and non-financial perspectives offer several actions to overcome financial distress. From a financial perspective, this can be done by seeking alternative sources of income, implementing cost efficiencies, restructuring debt, reducing production costs, managing capex, and carrying out mergers or acquisitions. From a non-financial perspective, we can review business strategy, evaluate production and sales management, and focus on innovation (Purba & Achmad, 2023; Aviantara, 2023).

This study aims to enable companies to prepare preventive measures against financial distress that may occur, considering that manufacturing companies play a major role in Indonesia's economy. This research focuses on evaluating financial factors to overcome financial distress and analyzing whether these financial factors have an influence on reducing financial distress in companies. Previous studies have primarily focused on detecting financial distress using existing models such as the Altman Z-Score, Grover G-Score, and Springate S-Score. Prasetya & Oktavianna (2021) assert that the limited funds faced by companies in Indonesia largely cause financial distress. Numerous factors, such as high interest rates, substantial operational costs, and limited resources, can contribute to this limited funding. Limited funds often force companies to obtain external funding from third-party sources to finance their operational activities or investment needs. The loans taken out by companies in this form will create liabilities for the company to settle the debt. The higher the debt, the higher the interest rates borne by the company (Rohmadini, Saifi, & Darmawan, 2018). Consequently, companies may struggle to meet their financial obligations, which ultimately leads to financial distress characterized by delayed payments, late payments, and even bankruptcy.

In Indonesia, there have been several cases of financial distress in manufacturing companies. One of these is the Sritex case. In 2023, Sritex, a textile manufacturing company listed on the Indonesia Stock Exchange (BEI) since 2013, was on the verge of being delisted. On May 18, 2022, the company halted trading of its shares. This was due to the company's significant debt, which led to poor financial health. In the first semester of 2023, Sritex incurred a

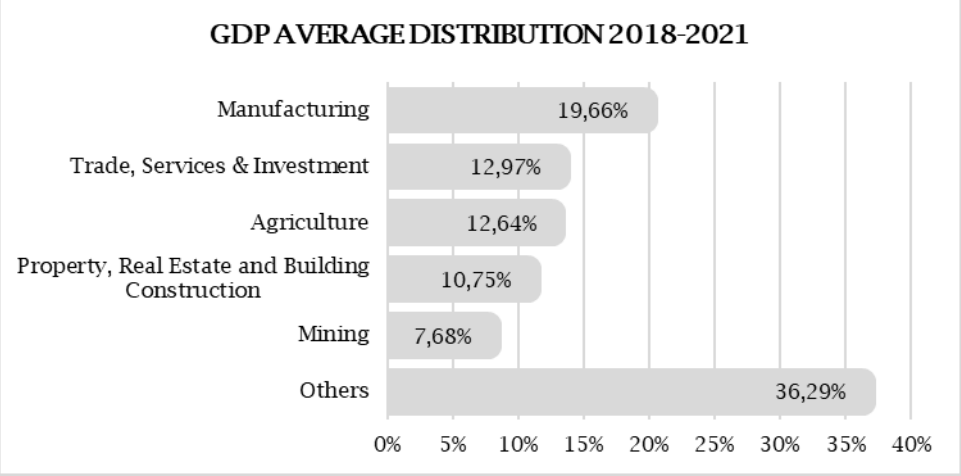


Figure. 2.
GDP Average Distribution 2018-2021
Source: Statistics Indonesia (BPS)

capital deficit due to a substantial difference between liabilities and assets. The company's liabilities totaled IDR 23.8 trillion, while its total assets were only IDR 10.75 trillion. Notably, the company's long-term debt, primarily from bank loans and bond issuances, was IDR 19.82 trillion (IDR 14.22 trillion in bank loans and IDR 5.6 trillion in bonds). Sritex struggled to cover its long-term debt, particularly from bank loans and bond issuances. When the company sold its assets, it was still unable to settle all its debts. The financial distress was caused by ineffective capital structure decisions, a low commitment to innovation, and the impact of the Covid-19 pandemic, which led to a decline in sales and profitability. The company's financial difficulties had significant implications for its stakeholders, including policyholders, employees, and shareholders, and highlighted the need for companies to prioritize financial management and make effective decisions to manage debt levels and liquidity (CNBC Indonesia, 2023).

Companies operating in the manufacturing sector are the research "objects" used in this study. We selected this object based on several scientific considerations. According to Statistics Indonesia (BPS), the manufacturing industry is the sector that contributes the most to the Indonesian economy, with an average contribution of 19.66% in each quarter during the 2018–2021 period. This significant contribution underscores the industry's crucial role in the country's economic landscape. Additionally, the manufacturing sector is also highly competitive, which can lead to price wars that negatively impact the economy (Chatha & Butt, 2015). Furthermore, manufacturing companies must comply with a variety of regulations, including environmental and safety regulations. Non-compliance can result in significant fines and penalties, which can negatively impact a company's financial health. Furthermore, the manufacturing sector listed on the BEI encompasses various operational sectors, making it a suitable and diverse research object. These factors collectively support the selection of companies in the manufacturing sector as the research objects for this study, as they provide a comprehensive understanding of the industry's financial distress and its impact on the economy.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Agency Theory

According to Jensen and Meckling (1976), agency theory is defined as a theory that arises as a result of an employment contract relationship in which one or more persons (principal(s)) engage another person (agent) to work on behalf of the principal(s), which involves delegating some decision-making authority. The principal has an interest in trying to optimize resources and make decisions, while the agent has an interest in trying to take action in order to maximize the company's profits (Putra & Serly, 2020). Different interests can lead to agency conflicts that may occur due to a lack of transparency and accountability in the company or decision making that is not in accordance with the interests of the principal (Li, Li, Xiang, & Djajadikerta, 2020; Putra & Serly, 2020). This can result in decreased company performance and even cause financial distress because managers do not pay attention to the company's long-term interests. Increasing corporate transparency and accountability, strengthening corporate governance, and providing appropriate incentives for company managers to act in the interests of business owners or shareholders are some strategies to reduce agency conflicts (Kasbar, Tsitsianis, Triantafylli, & Haslam, 2023). Agency theory plays a crucial role in Indonesian companies, ensuring that company managers (agents) act in the interests of company owners (principals) to minimize agency conflicts and prevent financial distress (Nugroho, Sutrisno, & Mardiati, 2020).

Financial Distress

According to Kristanti (2019), financial distress is a situation where a company experiences financial difficulties that are characterized by continuously declining

profits and even negative profits (losses). Financial distress is also defined as a situation when a company experiences financial difficulties and is unable to fulfill its debts (Kristyaningsih, Hariyani, & Sudrajat, 2021). This can result in liquidity difficulties for the company, as indicated by a decrease in its ability to fulfill its obligations to creditors due to a lack of funds to run or continue its business again. Financial distress that has occurred in the company for years can lead to bankruptcy risk (Karim, Shetu & Razia, 2021). The occurrence of financial distress in a company has a detrimental effect on both the company itself and the economic and industrial sectors. According to Roncagliolo & Blas (2022), there are several impacts of financial distress, including declining economic growth, reduced employment, and reduced investor confidence. Financial distress can have significant and far-reaching impacts on a company and the broader economy. One of the most significant consequences of financial distress is a decline in economic growth. Companies experiencing financial distress usually tend to avoid investment activities and reduce production levels. This is supported by research conducted by Rismadhani & Kadarningsih (2020), which explains that financial distress can lead to a decline in economic growth due to reduced investment and production levels. A decrease in employment is another consequence of financial distress. Companies experiencing financial distress often terminate employment to reduce operational costs, leading to a decrease in employment levels. This can have significant social and economic implications, as it can lead to increased unemployment rates and reduced economic activity. Financial distress can also lead to a decrease in investor confidence. Investors often perceive financial distress as a sign of poor performance, thereby decreasing their interest in investing in the company. This can make it more difficult for the company to raise capital, leading to further financial difficulties. Company management must identify signs of financial distress to determine the necessary actions to ensure the company's long-term sustainability.

According to previous studies (Sari, Hasbiyadi, & Arif, 2020; Arif, 2022; Aruni & Istikhoroh, 2021), one can detect financial distress by analyzing financial ratios, periodically analyzing financial performance trends, and conducting industry and market analyses. We then process these analyses using a specialized model. Aviantara (2023) proposes several models for analyzing a company's financial distress, such as the Altman Z-Score, Springate S-Score, and Grover G-Score. Financial ratios used to measure a company's financial health include profitability (return on assets, ROA), liquidity (current ratio), leverage (debt ratio, DAR), and sales growth. According to Ummah & Yuliana (2023), profitability measures a company's ability to earn profits with ratios such as ROA, return on equity (ROE), profit margin ratio, and basic earning power. Liquidity measures a company's ability to meet short-term debt with ratios such as the current ratio, the quick ratio/acid test ratio, and the cash ratio (Ho, 2024). Leverage measures a company's ability to use debt funds for the purpose of investing or financing company assets with the DAR, debt to equity ratio (DER), long-term debt to equity ratio, time interest earned ratio, and cash coverage ratio (Sapiri, 2023). Sales growth describes a company's investment success during the previous period and predicts future revenue. Maintaining or increasing sales growth is a strategic option for company management because it directly impacts shareholder value, and overall corporate performance relates to shareholders' welfare (Susilowati & Fadlillah, 2019).

Influence Profitability on Decreasing Financial Distress

Profitability ratios are used to assess the company's performance in generating profits. Managers, acting as agents, have a responsibility to guarantee that the company generates enough profits to settle debts and reward the owners, according to agency theory. This study uses the ROA ratio because it provides insights into the

effective utilization of company assets for profit generation, allows comparison with other companies in the same industry, and forecasts potential financial distress within the company. Sutra and Mais (2019) assert that a high profitability ratio indicates a good rate of return on investment from a company's assets and sufficient profit to fund the company's operational activities, indicating a sound financial condition far from financial distress. Kembery & Rasyid (2023), Mappadang, Ilmi, Handayani, & Indrabudiman (2019), and Kamaluddin, Ishak, & Mohammed (2019) support this research by asserting that a company's high level of profitability can reduce its risk of financial distress. This study utilizes ROA as a measure of profitability, as it provides a comprehensive overview of a company's ability to generate profits from its assets and facilitates comparative analysis with peer companies within the same industry, thereby enabling the prediction of financial distress in a company. The following hypothesis are therefore posited:

H1: Profitability has a positive effect on reducing financial distress.

Influence liquidity on decreasing financial distress

Managers use the liquidity ratio to gauge a company's capacity to settle its short-term obligations. According to agency theory, managers (agents) are responsible for ensuring that companies can meet their short-term liabilities, and they use the liquidity ratio to track their performance in meeting these obligations, thereby mitigating the risk of financial distress. According to Sutra and Mais (2019), a high level of liquidity indicates a company's strong ability to convert assets into cash, enabling it to settle its short-term liabilities with its current assets, thereby minimizing the likelihood of financial distress. Ammar & Gafsi (2021) research also supports this statement, asserting a negative correlation between the liquidity ratio and financial distress. This suggests that a company with high liquidity can mitigate the risk of financial distress. This study utilizes the current ratio as a measure of liquidity, as it provides a comprehensive overview of a company's ability to pay off its short-term debt, thereby enabling the prediction of financial distress. The following hypotheses are therefore posited:

H2: Liquidity has a positive effect on reducing financial distress.

Influence leverage on decreasing financial distress

Leverage ratios can affect the company's investment decisions. In agency theory, managers as agents have an obligation to ensure that companies make profitable investments because companies must consider the ability to pay debts with the aim of reducing the risk of financial distress. Mappadang, Ilmi, Handayani, & Indrabudiman (2019) concluded that the likelihood of financial distress decreases when operational activities financed by debt are smaller. Kembery and Rasyid (2023) support the above statement, asserting that while high leverage can boost a company's profitability, it also heightens the risk of financial distress. This study utilizes the DAR as a measure of leverage as it provides a comprehensive overview of a company's capital structure and financial risk, which quantifies the proportion of funds sourced from debt to finance company assets, thereby providing a comprehensive overview of the company's financial risk profile. A higher DAR indicates that a company uses more debt to finance its operations, which can increase its financial risk and make it more vulnerable to financial distress. The following hypotheses are therefore posited:

H3: Leverage has a negative effect on reducing financial distress.

Influence sales growth on decreasing financial distress

High sales growth can increase a company's value. According to agency theory, managers, acting as agents, have a responsibility to enhance the company's value in order to benefit the company owners. High sales growth can help managers increase the company's value and ensure that it has enough cash flow to pay debts. According to Kembery and

Rasyid (2023), an increase in a company's sales reduces its risk of financial distress because it enables it to settle its existing debts. Sutra and Mais (2019) support this research by stating that financial distress negatively impacts sales growth, implying that a significant increase in company sales can significantly prevent financial distress. The following hypotheses are therefore posited:

H4: Sales growth has a positive effect on reducing financial distress

RESEARCH METHODS

Research Design

This study employs quantitative research, examining the relationship between variables measured by specific research instruments, and utilizes numerical data for subsequent analysis using applicable statistical procedures. This study collects information from companies listed on the IDX in 2018–2022. The respective companies' annual and financial reports provide this information. To ascertain the market capitalization value, you can access it online via the company's official website or the websites of official Indonesian institutions like the Indonesia Stock Exchange, Statistics Indonesia, and the Market Screener. Additionally, we used purposive sampling as the sample selection technique, focusing on manufacturing companies listed on the IDX from 2018 to 2022 and those classified as "bankrupt" in 2018. The Altman Z Score formula (Z = 1.2 X1 + 1.4 X2 + 3.33 X3 + 0.6 X4 + 0.999 X5) is used to figure out if a company is "bankrupt." It is based on five financial ratios that show different aspects of its financial health: working capital to total assets (X1), retained earnings to total assets (X2), EBIT to total assets (X3), market value of equity to total liabilities (X4), and sales to total assets (X5). It is based on five financial ratios that show different aspects of its financial health: working capital to total assets (X1), retained earnings to total assets (X2), EBIT to total assets (X3), market value of equity to total liabilities (X4), and sales to total assets (X5). The Altman Z-Score formula was used to categorize manufacturing companies into three categories based on their financial health: "bankrupt" (FD < 1.81), "Gray Area" (1.81 ≤ FD ≤ 2.99), and "Good" (FD > 2.99). The total number of observations taken from 31 manufacturing companies from 2018–2022 is 155. Table 1 displays the process involved in selecting the observed sample. A multiple linear regression model was used.

PFD = α + β1PROF + β2LIQ + β3LEV + β4SG

Description: DFD = Decrease in Financial Distress, α = Konstanta, PRO = Profitability, LIQ = Liquidity, LEV = Leverage, SG = Sales Growth

ANALYSIS AND DISCUSSION

Descriptive Statistics

Table 3 presents the results of a descriptive statistical analysis, which provides an overview of the characteristics of the data, including the minimum, maximum, average, and standard deviation values of each variable. The dependent variable has a minimum value of -7.105 at PT FKS Food Sejahtera Tbk, a maximum value of 7.985 at PT Multistrada Arah Sarana Tbk, an average value of 0.02710, and a standard deviation value of 1.242456, indicating that the average decrease in financial distress is still very small. Profitability (X1_PRO) as the first independent variable has a minimum value of -1.080 from PT Tirta Mahakam Resorts Tbk, a maximum value of 0.607 from PT FKS Food Sejahtera Tbk, with an average value of -0.00097 and a standard deviation value of 0.150125, which shows that the average manufacturing company has experienced a decline in its ability to generate profits from its assets.

The second independent variable, liquidity (X2_LIQ), has a minimum value of 0.020 from PT Eterindo Wahanatama Tbk and a maximum value of 3.696 from PT Barito Pacific Tbk, with an average value of 1.08601 and a standard deviation value of 0.587322, indicating that most manufacturing companies have good liquidity, can pay off their current debts using their current assets, and have sufficient reserve assets to deal with emergency situations or urgent needs. Leverage (X3_LEV), the third independent

variable, has a minimum value of 0.140 from SLJ Global Tbk and a maximum value of 3.388 from Tirta Mahakam Resorts Tbk, with an average value of 0.76661 and a standard deviation value of 0.474390, which indicates that most manufacturing companies have good financial ability and are able to manage their debts well so as to minimize the risk of bankruptcy. The fourth independent variable, sales growth (X4_SG), has a minimum value of -0.998 and a maximum value of 12.001 from the same company, PT Eterindo Wahanatama Tbk, with an average sales growth value of 0.19296 and a standard deviation value of 1.324868. This indicates that the average manufacturing company has experienced an increase in sales growth.

To present changes in financial distress from year to year through the following diagram, see the increase or decrease that occurs from year to year. Additionally, the Altman Z-Score formula measures financial distress using the following value categories: 1) If FD <1.81, then it is "Bankrupt" category. 2) If 1,81 ≤ FD ≤ 2,99, then it is "Gray Area" category. 3) If FD > 2,99, then it is "Good" category.

With this value category, the descending line is a sign that financial

Table 1.
Determination of the sample

Criteria	Total
Manufacturing companies (IDX) in 2018-2022	159
Companies with incomplete annual reports	(20)
Companies categorized as "good" in 2018	(71)
Companies categorized as "gray area" in 2018	(37)
Companies selected as research samples	31
Number of observations (31 x 5)	155

Table 2.
Operational Variable

Variable	Definition	Measurement
Decrease in Financial Distress (DFD)	Financial distress is a situation of financial difficulty where the company is unable to pay off its debts thereby increasing the risk of bankruptcy (Kristanti, 2019). In this study, measurements were made using the difference in the current year's Financial Distress minus the previous period's financial distress.	$DFD = Z_t - Z_{t-1}$ Z score is measured by the Altman Z-Score formula (1968) $Y = 1,2\ X1 + 1,4\ X2 + 3,3\ X3 + 0.6\ X4 + 0.999\ X5$
Profitability (PRO)	Profitability is a measure of a company's ability to generate profits (Ummah & Yuliana, 2023).	ROA = Net Income / Total Asset
Liquidity (LIQ)	Liquidity is a measure of a company's ability to pay its short-term liabilities (Ningsih & Sari, 2019).	CR = Current Asset / Current Liabilities
Leverage (LEV)	Leverage is a measure of a company's use of debt to finance its operations (Sapiri, 2023).	DAR = Total Debt / Total Asset
Sales Growth (SG)	Sales growth is a measure of a company's ability to increase its revenue over time (Sutra and Mais 2019).	$SG = (Sales_t - Sales_{t-1}) / Sales_{t-1}$

distress is getting worse (increasing), while the rising line is a sign that financial distress is improving (decreasing). Figure 3 shows that the financial distress for the 2018–2022 period fluctuated up and down. In 2018, financial distress worsened to 0.401. Then in 2019, financial distress improved to 0.479. In 2020, financial distress worsened again to 0.241. Then, in 2021, financial distress will improve to 0.866. Finally, in 2022, financial distress will deteriorate once more to 0.773, indicating that the financial distress level of Indonesian manufacturing companies for the 2018–2022 period fluctuates annually and exhibits an upward or improving trend. Even though financial distress moves up and down inconsistently, the overall trend of financial distress is moving up (improving), so it can be concluded that there has been a decrease in financial distress from 2018–2022. Based on processed data analysis, it shows empirical evidence such as PT Asiaplast Industries Tbk, PT Multistrada Arah Sarana Tbk, and PT Sunson Textile Manufacture Tbk which were in the bankrupt category in 2018 and experienced a decrease in financial distress so that they became the "Good" category in 2018. The results of this study updated the results of Sari and Setyaningsih's study (2022), which stated that there was an increase in financial distress before and during the COVID-19 pandemic.

Hypothesis Testing

A coefficient of determination test was carried out to assess whether the regression model being tested was good or not, with a value between 0 (zero) and 1 (one). The adjusted R2 value in Table 4 is 0.317, which means that changes in the independent variables (profitability, liquidity, leverage, and sales growth) can explain changes in the dependent variable (a 31.7% drop in financial distress). While the remaining 68.3% (100%-31.7%) is a variation of other variables not included in the study. Furthermore, the second hypothesis testing is the F test, which aims to provide an overview of the influence of the independent variables as a whole or simultaneously on the dependent variable.

Table 3.
Descriptive Analysis Test Result

Variabel	N	Min	Max	Mean	Std. Dev
Y_DFD	155	-7.105	7.985	0.027	1.242
X1_PRO	155	-1.080	0.607	-0.000	0.150
X2_LIQ	155	0.020	3.696	1.086	0.587
X3_LEV	155	0.140	3.388	0.767	0.474
X4_SG	155	-0.998	12.001	0.193	1.325

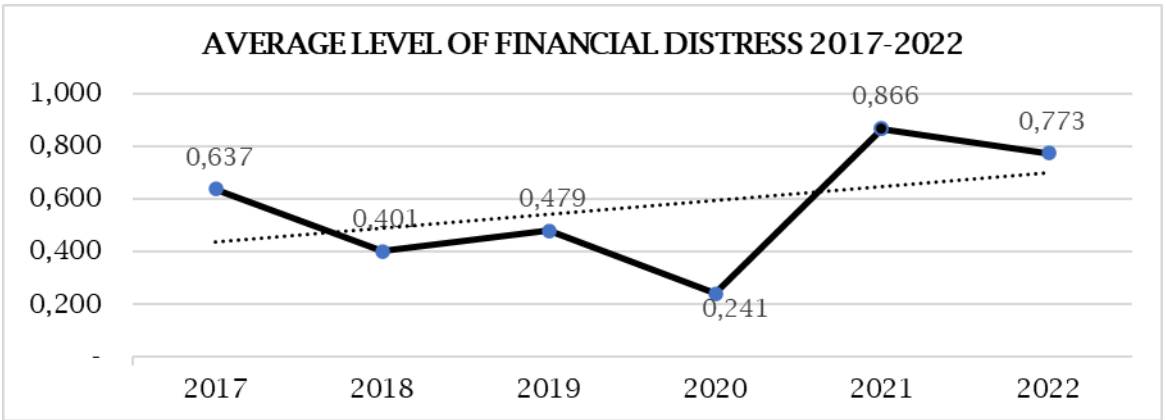


Figure 3.
Financial Distress Diagram for 2017 – 2022

In table 4, an F statistic value of 5.995 is obtained with a significance level <0.001, which is not greater than 0.05 (< 0.001 < 0.05), so it can be concluded that the independent variables (profitability, liquidity, leverage, and sales growth) are simultaneously able to affect the dependent variable (decrease in financial distress).

Finally, we conducted a t-test on each independent variable to determine their significant impact on the dependent variable. First, for the profitability variable, table 4 shows that the profitability variable has a significance value of 0.000 ≤ 0.05 with a β1 value of 1.300 (positive). So, H_1 which states that "Profitability has a positive effect on reducing financial distress" is accepted. Second, for the liquidity variable, table 4 shows that the liquidity variable has a significance value of 0.015 ≤ 0.05 with a β2 value of 0.335 (positive). So, H_2 which states that "Liquidity has a positive effect on reducing financial distress" is accepted. Third, table 4 shows that the leverage variable has a significance value of 0.214 > 0.05 with a β3 value of 0.427 (positive). Thus, H_3 which states that "Leverage has a negative effect on reducing financial distress" is rejected. Fourth, for the sales growth variable, table 4 shows that the sales growth variable has a significance value of 0.299 ≤ 0.05 with a β4 value of 0.111 (positive). So, H_4 which states that "Sales growth has a positive effect on reducing financial distress" is rejected.

Profitability has a positive effect on reducing financial distress

According to agency theory, managers strive to maximise profits in order to receive incentives. Managers prioritize profit maximization because they often receive compensation based on the company's financial performance, such as bonuses or stock options. Managers can use the profitability ratio as a valuable tool to assess their performance in making decisions that prevent financial distress. Kembery & Rasyid (2023), Mappadang, Ilmi, Handayani, & Indrabudiman (2019), and Kamaluddin, Ishak, & Mohammed (2019) support this theory, stating that profitability has a negative and significant effect on increasing financial distress, indicating that the greater a company's profitability, the lower its risk of experiencing financial distress. That research is in line with the findings of this study, which concluded that profitability ratios had a positive effect on reducing financial distress. This suggests that managers who prioritize profit maximization and make decisions that improve profitability are more likely to avoid financial distress. Furthermore, the study highlights the importance of monitoring profitability ratios as a means of identifying potential issues early and taking corrective actions to improve financial performance. Based on the analysis of the data that has been processed, it shows empirical evidence such as PT Asiaplast Industries Tbk and PT Multistrada Arah Sarana Tbk which have increased ROA from year to year.

Liquidity has a positive effect on reducing financial distress

Principals use the liquidity ratio in accordance with agency theory to monitor managers' performance and help companies avoid financial distress.

Table 4.
Hypothesis Test Result

Variable	Unstandardized Coeff. B	Sig. 2-tailed	Sig. 1-tailed
(Constant)	-0.572		
X1_PRO	1.300	<0.001	0.000
X2_LIQ	0.335	0.030	0.015
X3_LEV	0.427	0.453	0.214
X4_SG	0.111	0.598	0.299
R Square	0.381	F-statistic	5.995
Adjusted R^2	0.317	Sig.	<0.001

Liquidity ratios help identify potential cash flow issues and the ability to meet short-term liabilities. If the level of liquidity of a company is low, it illustrates that the company has difficulty paying its short-term debt, which can lead to agency conflict because the principal thinks the agent cannot carry out the company's activities properly, so it is unable to pay debts. This suggests that managers who can effectively manage and optimize their assets, ensuring that a company has sufficient liquid assets to pay its short-term financial obligations that improve liquidity, are more likely to avoid financial distress. Sutra and Mais (2019) support this theory by stating that liquidity has a negative and significant effect on increasing financial distress. High liquidity indicates the company's ability to pay off short-term liabilities using its current assets, thereby reducing the likelihood of financial distress. That research is in line with the findings of this study, which concluded that liquidity ratios had a positive effect on reducing financial distress. Furthermore, the study highlights that regularly monitoring liquidity ratios is important to detect potential liquidity issues promptly and implement corrective measures to maintain a healthy cash flow and avoid financial distress. Based on the analysis of processed data, it shows empirical evidence such as PT Asiaplast Industries Tbk which has increased from year to year, with a current ratio value of 1.406 in 2018 and increased to 1.793 in 2022.

Leverage does not affect the reduction of financial distress

In accordance with agency theory, leverage, or the use of debt in a company's capital structure, can influence these agency costs. Higher leverage can increase agency costs by providing managers with more opportunities to act in their own self-interest, such as taking on more risk or making decisions that benefit them personally rather than the shareholders. This can lead to financial distress, as the company may struggle to meet its debt obligations and maintain its financial health. However, in some cases, leverage may not have a direct impact on financial distress. This can occur when a company has a well-managed debt structure with a mix of short-term and long-term debt, which allows it to adjust its debt levels based on its cash flow and financial performance. Mappadang, Ilmi, Handayani, & Indrabudiman (2019) and Kembery & Rasyid (2023) support this theory by stating that leverage positively increases financial distress. That research is consistent with the results of this study, which concluded that leverage ratios have no effect on reducing financial distress.

Sales growth does not affect the reduction of financial distress

According to agency theory, managers may prioritize their personal interests over those of shareholders, leading to financial distress. Nursyamsiah & Wahyuni (2024) assert that a company's achievement of sales growth within a specific timeframe does not necessarily alleviate financial distress. A significant increase in sales implies that the company can also experience a substantial increase in profits. However, if the company's expenses are substantial, such as increased marketing costs due to sales efforts, an increase in sales does not necessarily translate into an increase in profits. This indicates that sales growth may not have a positive impact on financial distress. Kembery and Rasyid (2023) research concluded that an increase in a company's sales reduces its risk of financial distress as it enables it to settle its current debts. That research aligns with the findings of this study, which concluded that sales growth has no effect on reducing financial distress. Sutra and Mais (2019), also added that even though sales growth in a company is high, if it is followed by high operational expenses on company activities during that period, the level of financial distress cannot decrease.

CONCLUSION

This research has examined the factors influencing financial distress reduction in manufacturing companies listed on the IDX for 2018–2022. The results of this study

prove that profitability and liquidity have a positive effect on reducing financial distress, while leverage and sales growth have no effect on reducing financial distress. Moreover, this research also proves reveals a decline in financial distress among manufacturing companies in Indonesia for the 2018–2022 period. Based on these results, the authors propose several strategies to enhance profitability and liquidity in order to minimize the risk of financial distress. These include optimizing resource utilization through efficient use of assets, reducing production costs, increasing labor productivity, and adopting strategic technologies that are profitable and relevant to business operations. Companies can also implement the strategic approach of maintaining liquidity to ensure financial stability and flexibility. This can be achieved by implementing short-term debt reduction strategies, such as refinancing and strengthening financial discipline through strict financial monitoring and effective cash flow management practices. Furthermore, the authors recommend carefully monitoring receivables to reduce the possibility of uncollectible receivables, as well as increasing supervision and control over financial practices to ensure responsible financial management. Companies will be able to overcome financial distress and avoid the threat of bankruptcy by implementing these strategies, ultimately ensuring their long-term sustainability and competitiveness in the market.

LIMITATIONS AND SUGGESTIONS.

In conducting research, of course there are several limitations. For example, there are many manufacturing companies that do not publish their annual reports in 2018, then there are several manufacturing companies that no longer have operational activities in 2022, and there is limited literature where previous research mostly only examined factors that affect financial distress and not those that can reduce financial distress. For future research, the recommendation that can be given is to expand or replace the research sector to get more samples so as to get better results. In addition, you can also add or replace the variables used in measuring financial ratios, such as using Gross Profit Margin, Net Profit Margin, Basic Earning Power, Operating Profit Margin, or Return on Equity to measure profitability, then using the Quick Ratio or Cash Ratio to measure liquidity, and use Debt to Equity, etc. for leverage measurement.

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