

# The Effect of Profitability, Liquidity, and Leverage on Financial Distress with Company Size as a Moderating Variable in Infrastructure, Utility, and Transportation Companies Listed on the Indonesia Stock Exchange from 2019 to 2023

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KEYWORDS		ABSTRACT
Financial Infrastructure Management; Performance; Stability	Distress; Sector; Risk Corporate Financial	Financial distress is a critical issue affecting companies, particularly in the infrastructure, utility, and transportation sectors, which require substantial capital investment. Various factors, including profitability, liquidity, and leverage, influence financial distress, while company size may play a moderating role. Understanding these factors is crucial for corporate decision-makers and investors to mitigate risks and enhance financial stability. This research aims to analyze the effect of profitability, liquidity, and leverage on financial distress, with company size as a moderating variable in infrastructure, utility, and transportation firms listed on the Indonesia Stock Exchange (IDX) from 2019 to 2023. The research adopts a quantitative approach, utilizing secondary data obtained from audited financial statements of 30 selected companies over five years (2019–2023), resulting in 150 observations. The study employs SmartPLS version 4 for data analysis, including descriptive statistical tests, measurement model evaluations, and hypothesis testing through bootstrapping. The findings reveal that profitability and liquidity have a significant positive effect on financial distress, while leverage has a significant negative effect. Furthermore, company size moderates the relationship between liquidity and financial distress but does not moderate the effects of profitability and leverage on financial distress. The research concludes that effective financial management, particularly in maintaining profitability and liquidity, is essential in reducing financial distress. Additionally, company size plays a critical role in strengthening liquidity's impact on financial distress. These findings provide theoretical contributions to financial literature and practical implications for corporate financial management and investment decision-making.

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## Introduction

The Ministry of Finance released several State-Owned Enterprises (SOEs) that are included in the list of vulnerable to bankruptcy. From the data, it is known that the various industrial and agricultural sectors have the worst performance. Director General of State Assets

of the Ministry of Finance Isa Rachmatarwata said that one of the reasons why many SOEs in various industries and agriculture are in the red zone is due to the lack of current assets in these companies, in addition, profit before interest and taxes (EBIT) The SOEs of various industries and agriculture are not enough to face economic pressure. Previously, Finance Minister Sri Mulyani Indrawati said that indications of poor financial performance could be seen from the Altman Z-Score index. The average score of SOEs in various industries is level 0, while agricultural SOEs are negative 0.4. PT Dirgantara Indonesia (Persero) has a negative score of 0.84. PT Pindad (Persero) is at the level of 1.02. PT Industri Kereta Api (Persero) 0.92. PT Barata Indonesia (Persero) 0.83. PT Krakatau Steel (Persero) 0.47. PT Dok and Kodja Bahari (Persero) negative 1.72. PT Dok dan Perkapalan Surabaya (Persero) negative 1.23. PT Industri Kapal Indonesia (Persero) 0.89. PT PAL Indonesia (Persero) negative 0.1 (Kontan.co.id, 2019).

A company is a business entity that cannot be separated from accounting and managerial activities and has the main goal of obtaining the greatest profit for the company's survival. The weak level of the economy in Indonesia can cause fairly bad systematics for companies where competition between companies is inevitable, both in terms of marketing, product quality, management, optimal use of resources and even the level of financial performance that can underlie this.

The financial performance of a company can typically be assessed through the analysis of financial statements. These statements serve as a comprehensive record of a company's financial information during a specific accounting period and typically encompass several crucial elements, including financial position statements, income statements, statements of changes in equity, cash flow statements, and other relevant financial statement components. These statements are often utilized as a source of information pertaining to a company's financial position,

In Indonesia, many companies have gone bankrupt in the existing competition, even these companies can be categorized as giant companies in their respective fields, such as PT Sariwangi, PT Nyonya Meneer, and PT Metro Batavia (Batavia Air), which is caused by the company's inability to pay its obligations, which is in the form of a considerable debt (Tribunnews, 2018)

According to Nugroho (2021), financial distress is defined as the inability of a company to meet its financial obligations promptly, which places the entity at risk of bankruptcy. Nugroho further asserts that financial distress is frequently precipitated by inadequate management of the company's financial resources. Moreover, the losses incurred result in a capital deficiency due to a diminution in the value of the profit balance utilized for dividend payments, thereby leading to a total equity deficit. This state of affairs signifies that the company is grappling with financial distress. The company will likely face bankruptcy without a resolution to the aforementioned conditions.

According to Silanno and Loupatty (2021), a company is categorized as experiencing financial distress if it has had a negative operating profit for two consecutive years. Companies with a negative operating profit for more than a year indicate a decline in their financial condition. If the company's management takes no corrective actions, the company can go bankrupt. It can be concluded that financial distress, In general, can occur due to the disintegration of the financial system implemented by a company so that the utilization of

financial performance is not optimal and causes chaos in the financial system which affects the level of efficiency of the profits obtained so that it causes negative operating profits and occurs for two consecutive years and causes bankruptcy because they want to know in depth about several cases financial distress that occurs in infrastructure, utility, and transportation companies listed on the Indonesia Stock Exchange (IDX).

Influencing factors financial distress, namely Profitability. According to Nuranti et al. (2022), profitability is a ratio that measures how effective a company's management or executives are, as evidenced by their ability to create profits. Profitability is a ratio that measures a company's ability to generate net profit at a certain level of sales, assets and share capital. With the effectiveness of the company's management and executives based on certain levels of sales, assets, and share capital, the company can optimize its profits. Company profits can be a strong foundation to reduce financial distress, so that bankruptcy can be avoided. Results of Stepani & Nugroho (2023) and Darussalam et al. (2023) show that profitability significantly affects financial distress. However, research by Marfungatun (2017) states that profitability has no effect on financial distress.

The second factor that affects financial distress is liquidity. According to Wijaya and Suhendah (2023), the inability of a company to meet its current liabilities signifies an extreme liquidity problem. Such a problem can result in the forced sale of investments and other assets and may even precipitate insolvency and bankruptcy. The current ratio is a financial ratio frequently utilized. The current ratio is usually determined by comparing total current assets with current liabilities in the measurement of the current ratio. There cannot be an absolute measurement or value that a business unit can maintain, and it all depends on the business scale and the existing company type. Current ratio It can be said to be good if it meets the standard of a score of 2.00 or more in the existing general guidelines. Results Stephanie et al. (2020) show that liquidity significantly affects financial distress. However, research by Aryadi (2018) and Darussalam et al. (2023) shows that liquidity does not affect financial distress.

Factors that also greatly influence financial distress be Leverage. According to Silanno and Loupatty (2021), Leverage emphasises the important role of debt financing for companies by showing the percentage of company assets supported by debt funding. The larger the amount of debt, the greater the potential for the company to experience financial difficulties and bankruptcy and indications of bankruptcy can usually be preceded by the occurrence of a default event; this causes a larger amount of debt so that the probability of occurrence financial distress will be higher. Very high leverage will cause the ratio Leverage, which is also very high so that it can make the company burdened when the debt has experienced a maturity period, therefore the company is obliged to know and set the standard level Leverage, which is good so that it can pay off its debts optimally for the survival of the company. But on the other hand, if the company cannot standardize against the Leverage that will make the company very burdened in carrying out the company's operational activities, it can even be fatal and experience bankruptcy. Results Andari et al. (2023) indicates that leverage have a significant negative effect on financial distress, research Dini and Murtini (2023) indicates that leverage have a significant positive effect on financial distress, However, research Stephanie et al. (2020) and Aryadi (2018) indicates that leverage has no effect on financial distress.

This research employed a variable to moderate the company's size, reflecting its performance. The size of a company is typically measured based on total sales, average sales level, and total assets. A larger company is generally expected to exhibit higher profit growth. This heightened profit growth can influence a company's financial distress and sustainability, potentially impacting its ability to attract potential investors who may be suspicious of profit modification practices. Investors have been shown to have greater confidence in large companies. This is due to the assumption that these companies can enhance the quality of their profits through a series of efforts to improve their performance.

Recent research by Chong and Joung (2020) in the journal "Firm Size and Profitability: A Bayesian Approach" Shows that large companies have a larger economy and tend to be more profitable. In addition, large companies often have more resources for large-scale innovation and investment, which also increases profitability. The size of a company needs to be moderated because different company sizes have different access to resources and investment opportunities, which can affect its ability to generate profitability.

According to research by Dewi and Fachrurrozie (2021), large companies tend to have more stable liquidity than small companies. Large companies have easier access to the capital markets and can better manage liquidity by diversifying assets and liabilities. The size of a company can moderate the relationship between liquidity and financial performance, as large companies can better manage liquidity and reduce liquidity risk.

The study also found that the effect of leverage on company performance varies based on the company's size. Large companies tend to have a greater capacity to handle debt burdens and leverage leverage for growth. Moderation by company size is necessary because large companies may be better able to utilize leverage effectively without increasing excessive financial risk than small companies.

Research by Dirman (2020) indicates that large companies are likely to be at risk of financial distress, which is lower due to better diversification and access to a wider range of funding sources. Large companies also tend to have better risk management. The company's size can moderate the relationship between financial distress and company performance because large companies usually have more tools and strategies to manage risk and financial distress than small companies. However, according to research by Purwaningsih & Safitri (2022), Aryadi (2018) states that the size of the Company does not affect financial distress.

Based on the study, moderation by company size variables is essential to understand how profitability, liquidity, leverage, and financial distress interact with company performance. Large companies have different capacities and resources that can affect how they manage those variables, so it is important to consider the effects of company size moderation in financial performance analysis.

The infrastructure, utilities, and transportation sectors are developing rapidly in Indonesia. According to data provided by the Investment Coordinating Board (BKPM) in the first semester of 2019, the largest investment was in the transportation, warehouse and telecommunications business sectors, amounting to Rp 71.8 trillion. Investment acquisition is in line with the performance of its sector in the capital market. Infrastructure, utilities, and transportation sector indices during the year to date are up 12.47%. This sector has a very high level of performance compared to other sectors. Sukarno Alatas explained that the brilliant

performance of this sector greatly exceeded the percentage of the performance of the Composite Stock Price Index (JCI), which strengthened by 2.35% in the same period. "The strengthening contribution to the infrastructure index was supported by the telecommunications sub-sector which had a contribution of 62.3% with a gain of 28.49% since the beginning of the year, second came from the transportation sub-sector of 12.1% with a gain of 4.26%. The performance of other sectors that can boost this sector in the long term is telecommunications and transportation, according to Infovesta Utama Head of Research Wawan Hendrayana. "With the incessant expansion of the transportation sector, such as car manufacturers entering Indonesia, the performance of this sector has certainly increased significantly (Kontan.co.id, 2019).

Behind the extraordinary achievements in the sector, there are still several facts that can be concluded and encountered and observed that in the sector there are still several cases that can make investors refuse to invest their capital in the sector because in 2017 and 2018, there were several companies in the infrastructure, utilities and transportation sectors in the transportation sub-sector such as PT Citra Maharlika Nusantara Corpora Tbk and PT Inovisi Infracom Tbk in the telecommunications sub-sector and PT Truba Alam Manunggal Engineering in the non-building construction sub-sector have been declared delisted and even bankrupt by the Indonesia Stock Exchange and on average due to poor financial performance and inability to be repaired quickly by the company (Cekdollarmu, 2021).

Based on the data studied, several companies in the infrastructure, utilities and transportation sectors tend to experience an increase in asset value during the period 2017 – 2019 such as what happened to companies PT Mega Power Makmur Tbk, PT Adi Sarana Armada Tbk, PT Blue Bird Tbk, PT Bali Towerindo Sentra Tbk, PT Bukaka Teknik Utama Tbk, PT Inti Bangun Sejahtera Tbk, and PT PP Presisi Tbk. This indicates that most of the companies in the sector have experienced increased assets Annually.

Therefore, generalized research will be carried out on the infrastructure, utilities, and transportation sectors listed on the Indonesia Stock Exchange to find out how much progress the sector has made in overcoming problems regarding the standardization of profitability levels and liquidity to existing leverage. This research will be biased to get valid data on what will be discussed, namely the level of financial distress in the sector.

The infrastructure, utilities, and transportation sectors require long-term and capital-intensive funding, so many investors are still hesitant to invest due to the high risks when investing in this sector. Investors will consider the level of profit and risk obtained when they want to invest. To get investor interest, the company's management must be done very well and systematically. The form of good company organization can be seen from the level of company performance, which can also be assessed through profit or profit growth. If the company's performance level is good, profit growth will increase and vice versa; if the company's performance is not good, profit growth will decrease, and even business bankruptcy can occur.

Based on the existing phenomenon, the company's performance has an important role in suppressing financial distress in the infrastructure, utilities, and transportation sectors listed on the Indonesia Stock Exchange (IDX), so this research was conducted to prove the truth of this phenomenon. Against this background, this thesis is entitled "The Effect of Profitability, Liquidity, and Leverage on Financial Distress with Company Size as a Moderating Variable in Infrastructure, Utilities, and Transportation Sector Companies Listed on the Indonesia Stock



Exchange in 2019-2023." This study aims to analyze the influence of profitability, liquidity, and leverage on financial distress, as well as the role of company size as a moderation variable, with the formulation of the problem including how each variable affects financial distress and whether company size can moderate the relationship. The results of this study are expected to be theoretically useful for the development of accounting science, especially in the field of financial accounting. They can practically help companies understand the importance of managing profitability, liquidity, and leverage to prevent financial distress, as well as be a reference for further research in understanding financial dynamics in companies in the infrastructure, utilities, and transportation sectors.

## Research Methods

This study uses a quantitative approach with secondary data in the form of financial statements of companies in the infrastructure, utilities, and transportation sectors listed on the Indonesia Stock Exchange (IDX) in 2019-2023. The data was obtained through the official IDX website (<http://www.idx.co.id>) to ensure accuracy. The research aims to analyze the influence of profitability, liquidity, and leverage on financial distress, with company size as a moderation variable. The study population included 83 companies, and through the purposive sampling method, a sample of 30 companies that met the criteria was obtained over five years, resulting in a total of 150 observations.

The research variables consist of independent variables (profitability measured by return on assets, liquidity with current ratio, and leverage with debt to asset ratio), dependent variables (financial distress measured using Altman Z-score), and moderation variables (company size measured by natural logarithms of total assets). Data was collected through literature studies and financial report collection and analyzed using SmartPLS software version 4. The analysis includes descriptive statistical tests, measurement models (validity and reliability), and structural models to test the relationships between variables. The bootstrapping method is used to measure the significance of the influence, ensure objective results in answering the formulation of the problem and achieve the research objectives.

## Research Results and Discussion

### Research Results

#### 1. Overview of Research Objects

This study took the population, namely companies listed on the Indonesia Stock Exchange (IDX) from 2019 to 2023. There are 83 companies included in the infrastructure, utilities and transportation sectors listed on the Indonesia Stock Exchange (IDX) from 2019 to 2023.

The present study analyses the influence of profitability, liquidity, and leverage levels on the company's financial distress. This research was also conducted using secondary data obtained or collected by researchers from existing sources. The data set employed in this study is in the form of audited financial statements of companies operating within the infrastructure, utilities, and transportation sectors, as listed on the Indonesia Stock Exchange (IDX) from 2019 to 2023. These statements have been officially published

through the IDX website (<http://www.idx.co.id>) to ensure the accuracy and completeness of the research data.

Based on the existing research sampling criteria, the infrastructure, utilities, and transportation sector companies listed on the Indonesia Stock Exchange from 2019 to 2023 are 83. The sample in this study is 30 companies for the 5-year period 2019 – 2023, for a total of 150.

## 2. Descriptive Statistics

Descriptive statistics are a category of statistics that are used to analyze data by describing or describing the data that has been collected as it is. These statistics do not intend to make generalized conclusions or generalizations. Data presentation can be in tables, graphs, pie charts, mode calculations, medians, means, pictograms, decile calculations, percentile calculations, data distribution calculations through mean and standard deviation calculations, and percentage calculations.. The description of the research data consists of the variables of profitability (ROA), liquidity (CR), leverage (DAR), financial distress (Altman Z-Score), and Company Size (Firm Size) in 2019 – 2023. The following is Table 1 of the results of the descriptive statistical test obtained from each variable.

X1 = ROA

X2 = CR

X3 = DAR

Y = Altman Z-Score

Z = Firm Size

**Table 1. Descriptive Statistics**

Variable	Mean	Min	Max	Standard Deviation
Profitability	0.018	-0.580	0.555	0.123
Liquidity	1.366	0.025	9.900	1.734
Leverage	0.613	0.096	2.292	0.358
Firm Size	16.637	11.317	23.795	2.880
Financial Distress	1.521	-18.712	16.237	5.124

*Source: Smart PLS Output (Processed, 2024)*

Based on Table 1, the descriptive statistical test of Profitability (X1) results are presented with the number of research objects observed as many as 150. The lowest profitability is -0.580, which belongs to PT Garuda Indonesia (Persero) Tbk in 2021, and the highest profitability value is 0.555, which belongs to PT Garuda Indonesia (Persero) Tbk in 2022. The average value of profitability proxied by ROA in the sample company in 2019-2023 is 0.018, and the deviation is 0.123.

The Liquidity Variable (X2) proxied by CR with the number of research objects observed was 150. The lowest liquidity value is 0.025, which belongs to PT Air Asia Indonesia Tbk in 2021, and the highest liquidity value is 9,900, which belongs to PT Cikarang Listrindo Tbk in 2022. The average value of Liquidity proxied with CR in the sample company in 2019-2023 is 1.366, and the standard deviation is 1.734.

The Leverage Variable (X3) proxied by DAR with the number of research objects observed is 150. The lowest leverage value is 0.096, which belongs to PT Armada Berjaya Trans Tbk in 2021, and the highest leverage value is 2,292, which belongs to PT Air Asia Indonesia Tbk in 2023. The average value of Leverage proxied by DAR in the sample company in 2019-2023 is 0.613, and the standard deviation is 0.358. This shows that Leverage data is homogeneous and well-distributed.

The Financial Distress (Y) variable with the number of research objects observed was 150. The lowest Financial Distress is -18,712, which belongs to PT Air Asia Indonesia Tbk in 2022, and the highest Financial Distress value is 16,237, which belongs to PT. Armada Berjaya Trans Tbk in 2021. The average value of Financial Distress in the sample companies in 2019-2023 is 1,521, and the standard deviation is 5,124.

Company Size Variable (Z): The number of research objects observed can be as many as 150. The lowest Company size is 11,317, which belongs to PT Armada Berjaya Trans Tbk in 2020, and the highest Company Size value is 23,795, which is owned by PT Citra Marga Nusaphala Persada Tbk in 2023. The average Company Size value in the sample companies in 2019-2023 is 16,637, and the standard deviation is 2,880. This shows that company-size data is homogeneous and well-distributed.

### 3. Outer Model Evaluation

#### a. Validity Test

The Outer Model is typically assessed by evaluating the convergent validity value, defined as the magnitude of the loading factor for each existing construct. The convergent validity of the indicator reflective measurement model can be determined through the correlation between item or component scores obtained via PLS. Individual reflective measures are considered high when the correlation exceeds 0.70 with the measured construct.

**Table 2. Outer Loadings (Measurement Model)**

	<b>Profitability</b>	<b>Liquidity</b>	<b>Leverage</b>	<b>Financial Distress</b>	<b>Firm Size</b>
X1	1.000				
X2		1.000			
X3			1.000		
And				1.000	
With					1.000

*Source: Smart PLS Output (Processed, 2024)*

The results of the aforementioned test output indicate that the loading factor of each relationship between the indicator and its structure is variable. It can be concluded that the indicator value is above 0.70, thereby validating all indicators and ensuring that none have a value below 0.70.

**Table 3. Average Variance Extracted**

<b>Variable</b>	<b>AVE</b>
Profitability	1.000



Liquidity	1.000
Leverage	1.000
Firm Size	1.000
Financial Distress	1.000

*Source: Smart PLS Output (Processed, 2024)*

The Average Variance Extracted (AVE) value shows that the construct has a very good validity value because the AVE value is more than 0.50, as can be seen in Table 3, where each construct exceeds 0.50.

#### **b. Reliability Test**

In PLS, the reliability test can be executed in two ways: Cronbach's alpha and composite reliability. Cronbach's alpha quantifies the minimum threshold of a construct's reliability, whereas composite reliability quantifies its true value. Composite reliability is regarded as superior for evaluating the internal consistency of a construct.

**Table 4. Cronbach's Alpha**

Variable	Cronbach's alpha
Profitability	1.000
Liquidity	1.000
Leverage	1.000
Firm Size	1.000
Financial Distress	1.000

*Source: Smart PLS Output (Processed, 2024)*

In Table 4, Cronbach's Alpha values for all exogenous and endogenous constructs are very reliable because they are above 0.70. Thus, Profitability, Liquidity, Leverage, Financial Distress, and Firm Size have good reliability.

**Table 5. Composite Reliability**

Variable	Composite Reliability
Profitability	1.000
Liquidity	1.000
Leverage	1.000
Firm Size	1.000
Financial Distress	1.000

*Source: Smart PLS Output (Processed, 2024)*

In Table 5, the Composite Reliability values for all exogenous and endogenous constructs are very reliable because they are above 0.70. Thus, it can be concluded that Profitability, Liquidity, Leverage, Financial Distress, and Firm Size have good validity and reliability.

#### 4. Inner Model Evaluation

The determination coefficient ( $R^2$ ) is a statistical measure to assess how much a model can explain the variability in dependent variables. The value of  $R^2$  ranges from zero to one, with higher values indicating a stronger ability of independent variables to explain the variability in dependent variables. A value close to one suggests that the independent variables provide the majority of the information necessary to predict the variability in the dependent variable.

**Table 6. Value R-Square ( $R^2$ )**

Variable	R-square	R-square adjusted
Financial Distress	0.925	0.921

*Source: Smart PLS Output (Processed, 2024)*

Table 6 shows that the Financial Distress Variable has an R-Square value of 0.925, which is quite strong. This value indicates that 92.5% of the changes in Financial Distress can be influenced and explained by Profitability, Liquidity, Leverage and Firm Size. In contrast, other variables outside of this study influence the rest.

#### 5. Hypothesis Test Results

**Table 7. Bootstrapping (path Coefficients)**

Relationship	Original sample (O)	P values
Profitability -> Financial Distress	0.375	0.000
Liquidities -> Financial Distress	0.290	0.000
Leverage -> Financial Distress	-0.519	0.000
Firm Size x Preferabilities -> Financial Distress	-0.067	0.177
Firm Size x Liquidities -> Financial Distress	-0.140	0.001
Firm Size x Leverage -> Financial Distress	0.043	0.335

*Source: Smart PLS Output (Processed, 2024)*

Based on the test results in Table 7 above, the relationship between constructs shows that the Profitability construct positively and significantly affects Financial Distress because the P values are less than 0.05, namely  $0.000 < 0.05$  with the original sample value of 0.375. Liquidity positively and significantly affects Financial Distress because the P values are less than 0.05, namely  $0.000 < 0.05$ , with an original sample value of 0.290. Leverage negatively and significantly affects Financial Distress because the P value is less than 0.05, namely  $0.000 < 0.05$  with an original sample value of -0.519. Profitability moderated by firm size does not affect Financial Distress because P values are more than 0.05, namely  $0.177 > 0.05$ . Liquidity moderated by firm size has a negative and significant effect on Financial Distress because the P value is less than 0.05, namely  $0.001 < 0.05$ , with an original sample value of -0.140. Leverage moderated by firm size does not affect Financial Distress because P values are more than 0.05, i.e.  $0.335 > 0.05$ .

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## Discussion

### The Effect of Profitability on Financial Distress

The results of this study state that Profitability has an effect on Financial Distress. Based on the results of the hypothesis test, it shows that the P Values value is  $0.000 < 0.05$ . Based on stakeholder theory, the relationship between profitability and financial distress can be explained through how a company manages its relationships with its stakeholders, including employees, suppliers, customers, creditors, and shareholders. Companies that have high profitability tend to be able to fulfil their obligations to stakeholders, such as paying employee salaries, paying off debts to creditors, and meeting customer needs. On the other hand, if profitability is low, the company may have difficulty fulfilling these obligations, so stakeholder confidence can decrease, ultimately increasing the risk of financial distress.

Within the framework of stakeholder theory, profitability is an indicator of a company's ability to manage relationships with various parties involved. Good profitability creates trust, support, and stability that reduces the risk of financial distress. Conversely, low profitability can disrupt relationships with stakeholders and increase the likelihood of financial distress.

Based on agency theory, profitability affects financial distress because it reflects the company's ability to manage agency conflicts, meet financial obligations, and provide positive signals to creditors and investors. Low profitability increases the risk of financial distress through various mechanisms, including limited liquidity, increased agency costs, and decreased stakeholder confidence. These findings are in line with research (Stepani & Nugroho, 2023) and Darussalam et al. (2023) that shows profitability has a significant effect on financial distress.

### The Effect of Liquidity on Financial Distress

The results of this study state that Liquidity affects Financial Distress. Based on the results of the hypothesis test, it shows that the P Values value is  $0.000 < 0.05$ . Based on agency theory, liquidity can affect financial distress. Good liquidity management can improve conflicts of interest between managers (agents) and owners (principals) and reduce the risk of failure in meeting the company's financial obligations. High liquidity gives managers financial flexibility to manage operations and meet short-term obligations. However, in the context of agency theory, managers can use excess liquidity inefficiently (for example, for projects that do not provide maximum value to their owners or personal interests), which increases the risk of financial distress if the investment fails to generate a profit. In contrast, low liquidity limits the manager's ability to run the company's operations, which can lead to failure in meeting financial obligations, such as debt interest payments. Low liquidity reduces a company's ability to pay short-term obligations such as trade debts, employee salaries, or debt interest. In agency theory, this inability can trigger conflicts between owners and creditors, where creditors may increase oversight or restrict access to additional funding sources, accelerating the risk of financial distress.

Based on stakeholder theory, liquidity affects financial distress. Because the company's inability to fulfil its obligations to stakeholders can damage relationships, reduce trust, and create conflict. These tensions worsen business stability and accelerate the risk of financial distress as companies lose support from those who are supposed to help their operations. These

findings align with the study by Stephanie et al. (2020), which shows that liquidity significantly affects financial distress.

### **Effect of Leverage on Financial Distress**

The results of this study state that Leverage has a cynical effect on Financial Distress. Based on the results of the hypothesis test, it shows that the P Values value is  $0.000 < 0.05$ . According to agency theory, leverage can affect financial distress due to a conflict of interest between shareholders and creditors, known as agency problems. In a company that uses debt, shareholders and creditors have different interests. Shareholders seek higher profits, which can be achieved with high risks, such as increasing leverage. Meanwhile, creditors prioritize safe and stable debt repayment. When leverage is too high, the risk of default on debt payments increases, leading to losses for creditors and potential financial distress for the company.

So, leverage can affect financial distress because increased debt increases the risk of bankruptcy or financial difficulties caused by tensions between the interests of shareholders and creditors and risky decisions that managers may take.

According to the stakeholder theory, leverage can cause financial distress because of its wide impact on various stakeholders. When a company has difficulty meeting its debt obligations, all parties involved in its operations, both internal (such as employees) and external (such as creditors and the public), can feel the negative impact of these conditions. These findings align with the study's results (Andari et al., 2023), which shows that leverage has a significant negative effect on financial distress.

### **The Effect of Profitability on Financial Distress with Company Size as a Moderator**

Profitability moderated by company size (firm size) has no effect on Financial Distress because of the value of P values more than 0.05 i.e.  $0.177 > 0.05$ . In theory Stakeholder, The large size of a company is often related to the capacity to diversify risks. Large companies have more resources and access to a wider market, which can reduce the impact of financial distress despite low profitability. In this case, the company's size can act as a buffer that reduces the impact of financial problems despite low or declining profitability. Large companies have better access to external financing, both in debt and equity. Thus, they can overcome financial problems even if their profitability is not optimal, which may reduce the likelihood of financial distress. In stakeholder theory, profitability is not always a major factor in Determining Financial Distress for companies, especially if large companies can manage stakeholder interests more effectively and have the resources to reduce the impact of financial risks. These findings align with (Purwaningsih & Safitri, 2022), which state that the size of the Company does not affect financial distress when viewed only in terms of Profitability.

### **The Effect of Liquidity on Financial Distress with Company Size as a Moderation**

Liquidity moderated by company size (firm size) negatively and significantly affects Financial Distress because of the value of P values less than 0.05, i.e.  $0.001 < 0.05$ . The company's size serves as a moderator that strengthens the relationship between liquidity and financial distress. Large companies with greater resource capacity often have better access to external financing through debt or equity. With good liquidity and a large company size, it is

easier for companies to obtain funds or adjust their cash position to meet their operational needs. This reduces the likelihood of financial distress because large companies can manage cash flow and financial liabilities better. Large companies often have more efficient and sophisticated financial management systems for managing liquidity. They can better plan cash, manage cash inflows and outflows, and optimize the use of their resources. This helps them to avoid liquidity issues that can lead to financial distress. Thus, the company's large size reduces the negative impact of liquidity issues. High liquidity reduces risk and financial distress because companies can easily meet their financial obligations, maintain good relationships with stakeholders, and manage financial risks more effectively. The company's size is a moderator because large companies have a greater capacity to manage and utilize liquidity more efficiently and have more resources to address issues that may arise, ultimately reducing the likelihood of financial distress. These findings are in line with research by Dewi and Fachrurrozie (2021), large companies tend to have more stable liquidity than small companies. Large companies have easier access to the capital markets and can better manage liquidity by diversifying assets and liabilities. The size of a company can moderate the relationship between liquidity and financial performance, as large companies can better manage liquidity and reduce liquidity risk.

### **The Effect of Leverage on Financial Distress with Company Size as a Moderator**

Leverage moderated by the company's size (firm size) does not affect Financial Distress because of the value of P values more than 0.05 i.e.  $0.335 > 0.05$ . Overall leverage may not have a significant effect on financial distress which is moderated by company size because large companies are better able to manage debt-related risks through better access to financing, risk diversification, tighter supervision, and financial flexibility. In the context of theory stakeholder, Large companies tend to be more cautious in making financial decisions, considering the interests of various parties, and using leverage wisely to avoid negative impacts on financial distress. These findings are in line with Research (Aryadi, 2018) which states that the size of the Company has no effect on financial distress in moderating the value Leverage.

### **Conclusion**

The conclusions and suggestions of this study can be summarized as follows. Based on the results of testing five variables, namely profitability, liquidity, leverage, financial distress, and firm size, it is concluded that profitability and liquidity have a positive and significant influence on financial distress, in accordance with the theory of stakeholders and agencies that explain that good relationship management and liquidity can reduce the risk of financial distress. In contrast, leverage has a negative effect on financial distress because increased debt increases the risk of financial distress. Company size cannot moderate the effect of profitability or leverage on financial distress, although large companies tend to be more cautious in making financial decisions. However, company size can moderate the effect of liquidity on financial distress because large companies are better able to manage cash flow and financial liabilities. Based on this analysis, the suggestions given include the incorporation of other variables to measure profitability, liquidity, leverage, financial distress, and company size, the addition of different independent variables for future research to produce more accurate assessments, and paying attention to other variables that can change the mindset of companies, especially those

listed on the Indonesia Stock Exchange, in adjusting investment strategies and raising funds from investors to achieve better alignment.

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