

## Determinant of financial distress in construction sub-sector companies in Indonesia and Malaysia

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### Abstract

Financial distress is a company condition that shows a stage of decline or unhealthy in the company's finances that occurred before bankruptcy or liquidation. Factors that are suspected to indicate that the company will experience financial distress are liquidity, leverage, company size, and net profit growth. So this study aims to determine the effect of liquidity, leverage, company size, and net profit growth on financial distress. The population in this study used construction sub-sector companies listed on the Indonesia Stock Exchange and Malaysia Stock Exchange in 2020-2022. This study used secondary data from annual financial statements listed on the Indonesia Stock Exchange and Malaysia Stock Exchange. This type of research is a quantitative type. The sampling method in this study used purposive sampling techniques. The data analysis technique in this study used multiple regression analysis. The results of this study show that partially the variables of liquidity and net profit growth have a negative effect on financial distress. While variable leverage positively affects financial distress. In addition, the variable size of the company has no effect on financial distress. The results also show that simultaneously the variables of liquidity, leverage, company size, and net profit growth affect financial distress.

Keywords: Liquidity, Leverage, Company Size, and Net Profit Growth.

### INTRODUCTION

Construction companies are one part of the infrastructure sector listed on the Indonesia Stock Exchange. The development of construction industry companies is progressing quite rapidly as evidenced by the increasing number of companies listed on the Indonesia Stock Exchange. In construction companies listed on the Malaysian Exchange, the construction sector can act as one of the driving forces for the country's development.

In various other countries such as ASEAN-5 member countries, the construction sector can stimulate the development of social and economic infrastructure to trigger growth in the country's economic sector can be seen in table 1 below:

**Table 1.**  
Percentage of Economic Growth in ASEAN-5 Member Countries

| Country     | 2019 | 2020  | 2021 | 2022 |
|-------------|------|-------|------|------|
| Indonesia   | 5.02 | -2.07 | 3.70 | 5.31 |
| Malaysia    | 4.41 | -5.53 | 3.09 | 8.69 |
| Singapore   | 1.33 | -3.90 | 8.88 | 3.65 |
| Thailand    | 2.12 | -6.16 | 1.56 | 2.64 |
| Philippines | 6.12 | -9.52 | 5.70 | 7.60 |
| ASEAN-5     | 4.25 | -4.40 | 3.96 | 5.47 |

Source: BPS, data processed

(BPS, 2023) stated that the conditions for economic recovery after the COVID-19 pandemic continue to be experienced by countries within the scope of *the Association of Southeast Asian Nations* (ASEAN). In 2019, Indonesia's economic growth was 5.02%. Furthermore, in 2020 economic growth

experienced a contraction to -2.07%. Then in 2021 growth accelerated again to 3.70% until 2022 experienced continued growth acceleration of 5.31%. In 2019, Malaysia's economic growth was 4.41%. Furthermore, in 2020 economic growth experienced a contraction to -5.53%. Then in 2021 growth accelerated again to 3.09% until 2022 experienced accelerated growth reaching 8.69%.

Then (BPS, 2022) stated that the contribution of the sub-sector is one of the factors increasing the role of the construction sector in the country's economy. When viewed in terms of the growth rate of the construction sector in ASEAN-5 countries in the five year period (2017-2021), it can be presented in table 2 below:

**Table 1.**  
Growth Percentage of ASEAN-5 Construction Sub Sector

| Country     | 2017  | 2018  | 2019  | 2020  | 2021  |
|-------------|-------|-------|-------|-------|-------|
| Indonesia   | 10.38 | 10.53 | 10.75 | 10.71 | 10.44 |
| Malaysia    | 4.85  | 4.84  | 4.70  | 4.06  | 3.60  |
| Singapore   | 3.79  | 3.51  | 3.53  | 2.42  | 2.73  |
| Thailand    | 2.55  | 2.51  | 2.48  | 2.70  | 2.71  |
| Philippines | 6.68  | 7.52  | 7.87  | 6.57  | 6.94  |

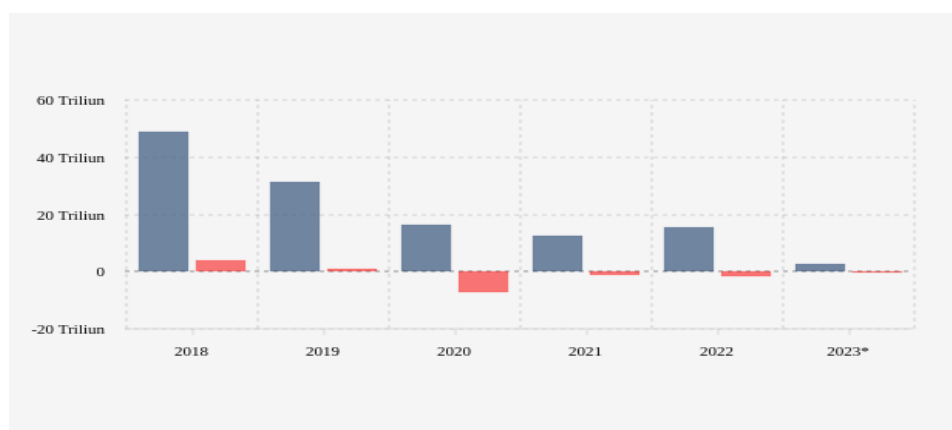
*Source: BPS, data processed*

(BPS, 2022) shows the percentage growth in the construction sub-sector in countries within the scope of *the Association of Southeast Asian Nations (ASEAN)*. In 2017, growth in the construction sub-sector in Indonesia was 10.38%. Furthermore, in 2018 growth accelerated to 10.53%. Then in 2019 growth accelerated again to 10.75%. In 2020 there was a slowdown in growth of 10.71% until in 2021 there was a slowdown in growth of 10.44%. In 2017, growth in the construction sub-sector in Malaysia was 4.85%. Furthermore, in 2018 growth experienced a slowdown to 4.84%. Then in 2019, growth slowed again to 4.70%, until two years in a row, 2020 and 2021 experienced slowed growth of 4.06% and 3.60%.

With increasingly tight competition in the rate of economic growth and the rate of growth in the country's construction sub-sector, companies will increasingly need to strengthen their management fundamentals so that they are able to compete with other companies in their respective countries. If the company is unable to overcome the problems that continue to occur within the company, it will have a negative impact on the company which can cause it to experience continuous losses so that in the end it has to face financial difficulties and even bankruptcy.

(Winaya, et al., 2020) believes that the initial symptom of bankruptcy experienced by a company is financial distress, where the company experiences increasingly declining financial conditions every year. Related to this, there are several things that can be a sign of financial distress, namely that the company has a negative net profit for two consecutive years and is unable to pay its debts. Meanwhile, according to (Platt & Platt, 2002), financial distress is a condition where a company experiences financial difficulties before bankruptcy or liquidation actually occurs. Meanwhile, according to (Hanafi & Halim, 2016), financial difficulties are described between two extreme points, namely short-term liquidity difficulties or the mildest to insolvency (the most severe). Short-term financial difficulties are usually temporary, but can become severe.

There are several phenomena regarding financial distress that occur in several construction companies listed on the Indonesian Stock Exchange and the Malaysian Stock Exchange. *First*, PT Waskita Karya Tbk is a construction company registered on the Indonesia Stock Exchange which is experiencing various problems as reported on the [katadata.co.id](http://katadata.co.id) website with the author (Agustiyanti, 2023), PT Waskita Karya Tbk is facing a series of problems, starting from piles of debt, losses, corruption and the continued detention of state capital participation (PMN), which is the hope for saving this BUMN. This issuer's shares have been suspended since May 8 2023 after falling 43.88% this year to IDR 202 per share. Based on the company's financial report, Waskita Karya has debts reaching IDR 84.3 trillion, while the company's equity is only IDR 13.85 trillion. The company has continued to suffer losses since the start of the 2020 pandemic.



**Figure 1 . PT Waskita Karya Tbk made consecutive losses**

*Source: [katadata.co.id](http://katadata.co.id)*

Deputy Minister of BUMN Kartika Wirjoatmodja admitted in 2021 that one of the reasons for the swelling of Waskita Karya's debt was an assignment from the government. This assignment is not accompanied by state capital participation (PMN) so the company uses its own money.

Waskita became the main contractor for toll road projects in the Jokowi era. In 2017, for example, around 90% of the target for a new 1,260 km toll road section was the responsibility of the company. Waskita Karya's debt is the largest among other Karya BUMNs. Meanwhile, Wijaya Karya has liabilities reaching IDR 55.76 trillion, Adhi Karya IDR 30.29 trillion, and PTTP Tbk IDR 43.81 trillion. The mounting debt also caused Waskita Karya to experience financial difficulties. This company has also been sued several times regarding delays in debt payment obligations. Piles of debts resulting in lawsuits are not Waskita Karya's only problem. This company has a government assignment project which is currently facing delays in the disbursement of state capital participation (PMN) amounting to IDR 3 trillion that should have been disbursed since last year. Director General of State Assets at the Ministry of Finance, Rionald Silaban, emphasized that the disbursement of PMN to Waskita Karya will await clarity on the company's restructuring program. He is worried that these funds will actually become assets confiscated because the company went bankrupt if they are given before the restructuring program is clear.

*Second*, Top Builders Berhad is a construction company listed on Malaysia Stock Exchange which is currently in the PN17 category. This category is intended for companies experiencing financial difficulties in Malaysia as reported by ([themalaysianreserve.com](http://themalaysianreserve.com), 2023), Top Builders Berhad will be delisted from the Malaysia Stock Exchange Securities on 8 August 2023 after the construction company failed to manage its financial condition, which led to its classification as an issuer of Praticce Note 17 (PN17). Top Builders' first signs of trouble emerged on December 30, 2021, when it was classified as a PN17 publisher, indicating financial distress.

One of the main indicators of a company's financial distress lies in its accumulated losses. At the end of (FY2022), the group's accumulated losses reached RM53.35 million, while the company's accumulated losses amounted to RM77.65 million. In late June, Top Builders' financial health was further compromised by an alarming discrepancy between its current liabilities and current assets. The group's current liabilities exceeded its current assets by RM109.63 million and the company faced similar difficulties with its current liabilities exceeding its current assets by RM31.75 million. This imbalance signals liquidity problems and raises doubts about the company's ability to meet its short-term financial obligations.

The two phenomena above are caused by the companies PT Waskita Karya Tbk and Top Builders Berhad experiencing financial difficulties (financial distress) to pay their obligations and also the high accumulation of company losses, where the increase in debt is not accompanied by an increase in profits, even leading to consecutive losses and high accumulation. Losses experienced by the company will lead to financial distress. Company debt management must be adjusted to the nominal debt and the income generated or the company assets owned by the company, so that it is ensured

that the company can pay the debt and interest in installments when they fall due. Because of this, the company will be vulnerable to experiencing problems with its finances and experiencing continuous losses and resulting in financial distress. This shows that companies must carry out management properly to avoid financial distress which results in bankruptcy. Therefore, the company must be able and ready to face all conditions in the future, including the company's finances must be stable so that the company is not in a state of financial distress which could lead to bankruptcy like the two companies above.

(Putri & Erinos, 2020) expressed their opinion that financial distress is a company that is experiencing abnormal operational losses, such as consecutive losses for several years, resulting in capital deficiencies, declining company performance, layoffs of workers and non-payment of dividends. This problem has become commonplace in large and small companies because this problem has a high influence, not only on internal parties but also on external parties. There are several factors that cause financial distress, namely liquidity, leverage, company size, and net profit growth to analyze the ability or condition of financial distress in construction companies.

According to (Kasmir, 2019), the liquidity ratio or often also called the working capital ratio is a ratio used to measure how liquid a company is. This ratio is useful for assessing the company's ability to pay obligations to third parties. This ability to pay will provide collateral for creditors to provide further loans to the company. The higher the level of liquidity ratios a company has, the lower the company's chances of experiencing financial distress.

According to (Fahmi, 2012), the leverage ratio measures how much a company is financed with debt. Companies that have large debts will face the risk of payment difficulties in the future because their debts are greater than the assets they own, so the company could potentially experience financial distress which could lead to bankruptcy.

According to (Riyanto, 2001), company size describes the size of a company which is shown in total assets, number of sales, average sales and total assets. Company size can describe the total assets owned by the company. The size of the company will be an added value for interested parties such as investors and creditors, because investors and creditors will not hesitate to invest and provide loans to the company so that the company will avoid financial distress.

According to (Kasmir, 2019) The net profit growth ratio is a ratio that describes a company's ability to maintain its economic position amidst economic growth and its business sector. Then according to (Meher & Getaneh, 2019) stated his opinion that profit growth is a reflection of the condition of the company experiencing constant and sustainable growth so that the company experiences growth in the long term. Companies that are able to increase profit growth every year and can maintain their operational activities will enable the company to survive when a crisis occurs and can even avoid financial distress.

Research on financial distress has been carried out by several previous researchers, including the results of research conducted by (Hakim, et al., 2022) showing that liquidity has no effect on financial distress. Meanwhile, research in (Stephanie, et al., 2020) shows that liquidity has an effect on financial distress. The results of research conducted (Amalina & Trisnaningsih, 2023) show that leverage has no influence on financial distress. Meanwhile, research in (Supriadi, et al., 2022) shows that leverage partially has a negative and significant effect on financial distress. The results of research conducted (Salim & Dillak, 2021) show that company size has a positive influence on financial distress. Meanwhile, research in (Amanda & Tasman, 2019) shows that company size does not have a significant and negative influence on financial distress. The results of research conducted by (Purwaningsih & Zelina, 2022) show that net profit growth has a negative effect on financial distress.

Several previous researchers have explored the factors that influence financial distress in companies. So, the difference in this research and research (Stephanie, et al., 2020) lies in the variables. Researchers now add net profit growth as an independent variable. In addition, research was conducted on construction sub-sector companies on the Indonesia Stock Exchange and Malaysia Stock Exchange. Researchers are interested in analyzing and conducting research with the title: "Determinant of Financial Distress in Construction Sub-Sector Companies in Indonesia and Malaysia".

## LITERATURE REVIEW AND HYPHOTESIS DEVELOPMENT

### Literature Review

#### Signal Theory

According to (Brigham & Houston, 2019) signal theory is a measure taken by management to provide instructions to investors about how the company evaluates the company's prospects. (Jogiyanto, 2000) revealed that when information is disclosed and all market players receive the information, market players first interpret and analyze the information as a good signal (good news) or a bad signal (bad news). This is in line with the opinion in research (Handayani, et al., 2019) that when a company experiences bad news (bad signals) will be a consideration for investors to invest. On the other hand, when a company experiences good news (good signals), investors will invest in that company.

#### Financial Distress

According to (Platt & Platt, 2002) , financial distress is a condition where a company experiences financial difficulties before bankruptcy or liquidation actually occurs. Meanwhile, according to (Hanafi & Halim, 2016) , financial difficulties are described between two extreme points, namely short-term liquidity difficulties or the mildest to insolvency (the most severe). Then (Putri & Erinos, 2020) added the definition that financial distress is a company that is experiencing abnormal operational losses, such as consecutive losses for several years, resulting in capital deficiencies, declining company performance, layoffs of workers and failure to carry out dividend payments. According to (Brigham & Houston, 2009) they argue that financial problems in companies can be predicted over a long period before the company experiences failure (financial distress). In this case, by adapting to the circumstances of various countries and organizations, Altman again developed exploration in predicting financial difficulties. The modified Altman model is the name given to the results of this third research formulation. This modified Altman model is suitable for use in developing countries and can be used to predict financial difficulties in various types of companies.

#### Liquidity

According to (Fahmi, 2012) the liquidity ratio is the ability of a company to fulfill its short-term obligations in a timely manner. According to (Kasmir, 2019) the liquidity ratio or often also called the working capital ratio is a ratio used to measure how liquid a company is.

#### Leverage

According to (Fahmi, 2012) the leverage ratio measures how much a company is financed with debt. According to (Kasmir, 2019) the leverage ratio is a ratio used to measure the extent to which a company's assets are financed with debt.

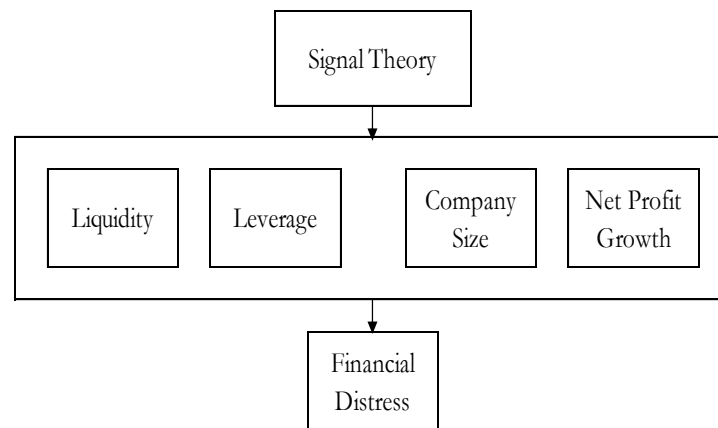
#### Company Size

According to (Wati, 2019) company size is one of the factors that investors consider when making an investment. Then according to (Riyanto, 2001) revealed that company size describes the size of a company which is shown in total assets, number of sales, average sales and total assets.

#### Net Profit Growth

According to (Kasmir, 2019) the net profit growth ratio is a ratio that describes the company's ability to maintain its position its economy in the midst of economic growth and its business sector.

## Framework



**Figure 2.** Framework  
*Source: Processed by researcher*

## Hypothesis Development

### The Effect of Liquidity on Financial Distress

It was stated by (Kasmir, 2019) that the liquidity ratio is useful for assessing a company's ability to pay obligations to third parties. This ability to pay will provide collateral for creditors to provide further loans to the company. The higher the level of liquidity ratios a company has, the lower the company's chances of experiencing financial distress. This can happen if the company's liquidity increases, then the company is likely to be able to pay its debts on time. This is supported by research conducted by (Setyowati & Sari, 2019) that the research results show that liquidity has a negative effect on financial distress. And it is also supported by research (Purwaningsih & Safitri, 2022) whose research results show that liquidity has a significant negative effect on financial distress. Based on the theory and previous research above, the hypothesis can be formulated as follows:

**H<sub>1</sub> : Liquidity has a negative effect on financial distress**

### The Effect of Leverage on Financial Distress

(Ross, et al., 2013) suggests that financial distress can be used as an early warning system for a problem. Companies with higher debt levels will experience financial distress earlier than companies with low debt levels. Companies with a low level of leverage will experience financial distress later, and in many cases, will be forced to liquidate. This is because the debt is greater than the assets owned so that the company could potentially experience financial distress which could lead to bankruptcy. This is supported by research conducted by (Mahaningrum & Merkusiwati, 2020) stating that leverage has a positive effect on financial distress. And also supported by research (Pratiwi & Sudiyatno, 2022) the results of the research show that leverage has a positive and insignificant effect on financial distress. Based on the theory and previous research above, the hypothesis can be formulated as follows:

**H<sub>2</sub> : Leverage has a positive effect on financial distress**

### The Effect of Company Size on Financial Distress

According to (Wati, 2019), company size is one of the factors that investors consider when making an investment. The size of the company will be an added value for interested parties such as investors and creditors. If a company has large total assets, this will have a positive impact on the company because interested parties such as investors and creditors will not hesitate to invest and provide loans. Apart from that, the company also gained the trust of these parties and received various recommendations from clients and external parties, which was able to strengthen the company's financial condition and avoid financial distress. This is supported by research conducted by (Setyowati & Sari, 2019), the results of which show that company size has a negative effect on financial distress.

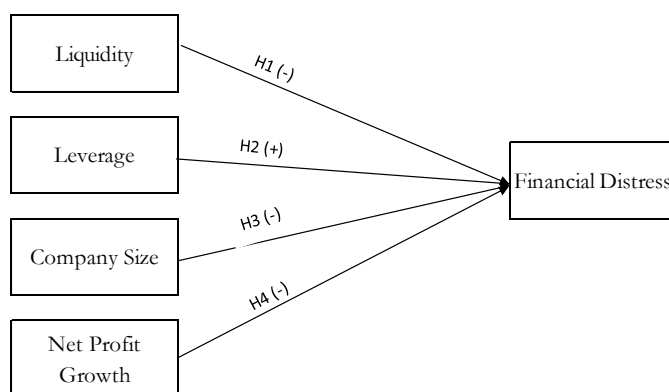
And also supported by research by (Hakim, et al., 2022) stating that company size partially has a negative effect on financial distress. Based on the theory and previous research above, the hypothesis can be formulated as follows:

**H<sub>3</sub> : Company size has a negative effect on financial distress**

### The Effect of Net Profit Growth on Financial Distress

It was stated by (Meher & Getaneh, 2019) profit growth is a reflection of the condition of the company's industry experiencing constant and sustainable growth so that the company experiences growth in the long term. When a company has a good financial condition on a sustainable basis, the risk of the company facing financial distress will be smaller because sustainable financial factors will be an important driver that holds back the risks faced by the construction business. This is supported by research conducted by (Purwaningsih & Zelina, 2022) showing that net profit growth has a negative effect on financial distress. Based on the theory and previous research above, the hypothesis can be formulated as follows:

**H<sub>4</sub> : Net profit growth has a negative effect on financial distress**



**Figure 3.** Hypothesis Framework

*Source: Processed by researcher*

## METHODS

### Research methods

Based on the problems studied, the research method used by the author in this research is a quantitative descriptive approach. According to (Sudaryono, 2019) suggests that quantitative research has a series of standard steps or procedures that are used by researchers.

### Types, Sources and Data Collection Techniques

This type of research uses quantitative research. According to (Sugiyono, 2018) that this quantitative method has research data in the form of numbers and analysis using statistics. This is to test and analyze the influence of liquidity, leverage, company size and net profit growth on financial distress. Quantitative data was obtained from annual financial reports on the Indonesia Stock Exchange and Malaysia Stock Exchange which were processed using SPSS Version 25.

The data source in the research used by the author is secondary data. (Siregar, 2013) believes that secondary data is data published or used by organizations that are not its processing. This research uses data in the form of annual financial reports for the 2020-2022 period for construction sub-sector companies listed on the Indonesia Stock Exchange and Malaysia Stock Exchange. This data was obtained from the official websites [www.idx.co.id](http://www.idx.co.id) and [www.bursamalaysia.com](http://www.bursamalaysia.com).

The data collection technique in this research is documentation and literature study. According to (Sugiyono, 2018), documentation is the process of obtaining data and information in the form of books, archives, documents, articles, figures and images in the form of reports and information that

can meet research requirements. This research uses literature studies obtained from books, journals and documentation taken from financial report data from the Indonesia Stock Exchange and Malaysia Stock Exchange for construction sub-sector companies in 2020-2022 by accessing the official websites of the Indonesia Stock Exchange and Malaysia Stock Exchange with the website [www.idx.co.id](http://www.idx.co.id) and [www.bursamalaysia.com](http://www.bursamalaysia.com), after getting the financial reports the researchers downloaded and analyzed the financial reports.

### Population and Sample

The population in this study are construction sub-sector companies listed on the Indonesia Stock Exchange, namely 25 companies and the Malaysia Stock Exchange, namely 66 companies. Combined, there are 91 companies. In this research, the sampling technique used was a non-probability sampling technique using a purposive sampling method. According to (Sugiyono, 2018), purposive sampling is a technique used in selecting research samples with considerations in accordance with the desired criteria to determine the number of samples to be studied. The criteria in this research include:

1. Construction sub-sector companies that have been listed on the Indonesian Stock Exchange and Malaysia Stock Exchange in 2020-2022.
2. Companies that publish financial reports for the 2020-2022 period.
3. Companies that publish annual reports on 31 December 2020- 31 December 2022.

### Variable Operationalization

The variables in this research consist of five variables. Four independent variables and one dependent variable. Dependent variable used in this research is Financial Distress (Y). The independent variables used in this research are Liquidity (X1), Leverage (X2), Company Size (X3) and Net Profit Growth (X4).

**Table 3.** Variable Operationalization

| Variable               | Variable Definition  | Indicator  | Scale |
|------------------------|--|--|-------|
| Financial Distress (Y) | According to (Platt & Platt, 2002), financial distress is a condition where a company experiences financial difficulties before bankruptcy or liquidation actually occurs. | $Z'' = 6,56 X1 + 3,26 X2 + 6,72 X3 + 1,05 X4$ $Z'' = \text{Bankruptcy index}$ $X1 = \text{Working capital/total assets}$ $X2 = \text{Retained earnings/total assets}$ $X3 = \text{Earnings before interest and taxes/total assets}$ $X4 = \text{Book value of equity/book value of total debt}$ <p><i>Source:</i> (Khotimah &amp; Yuliana, 2020)</p> | Ratio |
| Liquidity (X1)         | According to (Kasmir, 2019) stated that the liquidity ratio or often also called the working capital ratio is a ratio used to measure how liquid a company is.             | $\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$ <p><i>Source:</i> (Kasmir, 2019)</p>   | Ratio |
| Leverage (X2)          | According to (Kasmir, 2019) The Leverage Ratio is a ratio used to measure the extent   | $\text{Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$  | Ratio |



| Variable               | Variable Definition   | Indicator   | Scale |
|------------------------|---|---|-------|
|                        | to which a company's assets are financed with debt.   | <i>Source</i> : (Kasmir, 2019)  |       |
| Company Size (X3)      | According to (Riyanto, 2001) , company size describes the size of a company which is shown in total assets, number of sales, average sales and total assets.                            | $Company\ Size = \ln(Total\ Assets)$ <i>Source</i> : (Riyanto, 2001)  | Ratio |
| Net Profit Growth (X4) | According to (Kasmir, 2019) The net profit growth ratio is a ratio that describes a company's ability to maintain its economic position amidst economic growth and its business sector. | $\frac{Net\ profit\ growth}{= \frac{net\ profit\ this\ year - net\ profit\ last\ year}{net\ profit\ last\ year}}$ <i>Source</i> : (Harahap, 2016) | Ratio |

### Data analysis

Data analysis is used to simplify the data that has been obtained into new information.

### Difference Test ( *t-paired* )

According to (Ghozali, 2018) , this difference test is used to test whether there is a difference in the average of two related samples. The difference test ( *t-paired* ) has the following conditions:

1. If the significant value is  $> 0.05$  then the sample means are not identical (different).
2. If the significant value is  $< 0.05$  then the sample averages are identical (same).

### Hypothesis testing

Hypothesis is a temporary guess. The purpose of hypothesis testing is to test whether the independent variable has an effect on the dependent variable.

### Multiple Regression Analysis

Multiple regression analysis is used to test how much the independent variable influences the dependent variable calculated using the following multiple linear regression line equation:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e_i$$

Information:

- Y : Financial Distress  
a : Constant  
 $\beta_1, \beta_2, \beta_3, \beta_4$  : Regression coefficients  
 $X_1$  : Liquidity  
 $X_2$  : Leverage  
 $X_3$  : Company Size  
 $X_4$  : Net Profit Growth  
 $e_i$  : Error rate that may occur

## RESULTS AND DISCUSSIONS

### Difference Test (t-paired)

**Table 6.** Different Test Results

| Paired Samples Statistics |                               |         |    |                |                 |
|---------------------------|-------------------------------|---------|----|----------------|-----------------|
|                           |                               | Mean    | N  | Std. Deviation | Std. Error Mean |
| Pair 1                    | Indonesian Financial Distress | 3.6403  | 35 | 2.42490        | ,40988          |
|                           | Malaysian Financial Distress  | 3.9491  | 35 | 1.97169        | ,33328          |
| Pair 2                    | Indonesian Liquidity          | 1.7297  | 35 | ,76750         | ,12973          |
|                           | Malaysian Liquidity           | 1.7849  | 35 | ,58290         | ,09853          |
| Pair 3                    | Leverage Indonesia            | 1.1340  | 35 | ,62140         | ,10504          |
|                           | Malaysian Leverage            | 1.2140  | 35 | ,73154         | ,12365          |
| Pair 4                    | Indonesian Company Size       | 14.5423 | 35 | 1.16106        | ,19626          |
|                           | Malaysian Company Size        | 13.6529 | 35 | ,72533         | ,12260          |
| Pair 5                    | Indonesian Net Profit Growth  | -,3563  | 35 | 1.08575        | ,18352          |
|                           | Malaysian Net Profit Growth   | -,5469  | 35 | ,98493         | ,16648          |

*Source: SPSS Version 25 Output*

Table 6 shows the mean value between Indonesia and Malaysia. Indonesia's financial distress has a mean value of 3.6403. Meanwhile, financial distress in Malaysia has a mean value of 3.9491. Indonesia's liquidity has a mean value of 1.7297. Meanwhile, Malaysian liquidity has a mean value of 1.7849. Indonesian Leverage has a mean value of 1.1340. Meanwhile, Malaysian leverage has a mean value of 1.2140. Indonesian company size has a mean value of 14.5423. Meanwhile, the Malaysian company size has a mean value of 13.6529. Indonesia's net profit growth has a mean value of -0.3563. Meanwhile, Malaysia's net profit growth has a mean value of -0.5469.

**Table 7.** Different Test Results

| Paired Samples Test |  |                    |                |                 |   |         |       |    |                 |
|---------------------|--|--------------------|----------------|-----------------|---|---------|-------|----|-----------------|
|                     |  | Paired Differences |                |                 |   |         | t     | df | Sig. (2-tailed) |
|                     |  | Mean               | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference |         |       |    |                 |
|                     |  |                    |                |                 | Lower                                     | Upper   |       |    |                 |
| Pair 1              | Financial Distress Indonesia - Financial Distress Malaysia | -,30886            | 3.24910        | ,54920          | -1.42496                                  | ,80725  | -,562 | 34 | ,578            |
| Pair 2              | Indonesian Liquidity - Malaysian Liquidity                 | -,05514            | 1.01191        | ,17104          | -,40275                                   | ,29246  | -,322 | 34 | ,749            |
| Pair 3              | Leverage Indonesia - Leverage Malaysia                     | -,08000            | 1.12088        | ,18946          | -,46503                                   | ,30503  | -,422 | 34 | ,676            |
| Pair 4              | Indonesian Company Size - Malaysian Company Size           | ,88943             | 1.20465        | ,20362          | ,47562                                    | 1.30324 | 4,368 | 34 | ,000            |
| Pair 5              | Indonesian Net Profit Growth - Malaysian Net Profit Growth | ,19057             | 1.49180        | ,25216          | -,32188                                   | ,70302  | ,756  | 34 | ,455            |

*Source: SPSS Version 25 Output*

Based on table 7, the results of this test show that financial distress in Indonesia and Malaysia has a significant value or sig (2-tailed) greater than 0.05 ( $0.578 > 0.05$ ). So it can be concluded that the sample means are not identical (different). Indonesia and Malaysia's liquidity has a significant value or sig (2-tailed) greater than 0.05 ( $0.749 > 0.05$ ). So it can be concluded that the sample means are not identical (different). Indonesian and Malaysian leverage has a significant value or sig (2-tailed) greater than 0.05 ( $0.676 > 0.05$ ). So it can be concluded that the sample means are not identical (different). The size of Indonesian and Malaysian companies has a significant value or sig (2-tailed) smaller than 0.05 ( $0.000 < 0.05$ ). So it can be concluded that the sample averages are identical (same). Indonesia and Malaysia's net profit growth has a significant value or sig (2-tailed) greater than 0.05 ( $0.455 > 0.05$ ). So it can be concluded that the sample means are not identical (different).

**Hypothesis testing**

**Multiple Regression Analysis**

Multiple linear regression is used to determine the effect of one or more independent variables on a dependent variable. The following research results obtained are processed in table 11.

**Table 11.** Multiple Regression Analysis Test Results

| Coefficients <sup>a</sup> |                   |                             |            |                           |         |      |
|---------------------------|-------------------|-----------------------------|------------|---------------------------|---------|------|
| Model                     |                   | Unstandardized Coefficients |            | Standardized Coefficients | t       | Sig. |
|                           |                   | B                           | Std. Error | Beta                      |         |      |
| 1                         | (Constant)        | -3,977                      | 1,432      |                           | -2,777  | ,007 |
|                           | Liquidity         | -1,946                      | ,177       | -,616                     | -11,013 | ,000 |
|                           | Leverage          | 1,166                       | ,181       | ,353                      | 6,439   | ,000 |
|                           | Company Size      | ,158                        | ,086       | ,083                      | 1,843   | ,069 |
|                           | Net Profit Growth | -,245                       | ,085       | -,126                     | -2,886  | ,005 |

a. Dependent Variable: Financial Distress

Source: SPSS output processed data, 2023

Table 11 shows that the results of the multiple regression analysis above can show a regression equation, namely:

$$Y = -3.977 - 1.946L + 1.166Le + 0.158CS - 0.245NPG + e_i$$

Information:

1. The constant of -3.977 states that if liquidity, leverage, company size and net profit growth are constant or equal to zero then the financial distress index is -3.977. The negative constant is due to a decrease in financial distress of -3.977.
2. The regression coefficient value for the liquidity variable is -1.946. This means that for every increase in liquidity by 1, the financial distress index will decrease by -1.946.
3. The regression coefficient value of the leverage variable is 1.166. This means that for every increase in leverage by 1, the financial distress index will increase by 1.166.
4. The regression coefficient value for the company size variable is 0.158. This means that for every increase in company size by 1, the financial distress index will increase by 0.158.
5. The regression coefficient value of the net profit growth variable is -0.245. This means that for every increase in net profit growth of 1, the financial distress index will decrease by -0.245.

**Coefficient of Determination Test**

**Table 12.** Coefficient of Determination Test Results

| Model Summary |                   |          |                   |                            |
|---------------|-------------------|----------|-------------------|----------------------------|
| Model         | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1             | ,914 <sup>a</sup> | ,836     | ,829              | ,83146                     |

a. Predictors: (Constant), Net Profit Growth, Leverage, Liquidity, Company Size

Source: SPSS output processed data, 2023

Based on table 12, the results show an R number of 0.914, which proves that there is a strong correlation or relationship between financial distress and the four independent variables because it is more than 0.05. The R Square figure is 0.836 (coefficient of determination). Adjusted R Square is 0.829 or 82.9%, meaning that Liquidity, Leverage, Company Size and Net Profit Growth are able to predict Financial Distress by 82.9%. Meanwhile, the remainder ( $100\% - 82.9\% = 17.1\%$ ) was influenced by other factors not examined by this research.

### Partial Significance Test (t Test)

The t test is used to determine the effect of each independent variable on the dependent variable. According to (Suliyanto, 2011), to determine the statistical t value of the table, a significance level of 5% is determined with degrees of freedom, namely  $df = 153 - 4 - 1 = 148$ . The t table value for  $df = 148$  is 1.979.

**Table 13.** Partial Test Results (t Test)

| Coefficients <sup>a</sup> |                   |                             |            |                           |         |      |
|---------------------------|-------------------|-----------------------------|------------|---------------------------|---------|------|
| Model                     |                   | Unstandardized Coefficients |            | Standardized Coefficients | t       | Sig. |
|                           |                   | B                           | Std. Error | Beta                      |         |      |
| 1                         | (Constant)        | -3,977                      | 1,432      |                           | -2,777  | ,007 |
|                           | Liquidity         | -1,946                      | ,177       | -,616                     | -11,013 | ,000 |
|                           | Leverage          | 1,166                       | ,181       | ,353                      | 6,439   | ,000 |
|                           | Company Size      | ,158                        | ,086       | ,083                      | 1,843   | ,069 |
|                           | Net Profit Growth | -,245                       | ,085       | -,126                     | -2,886  | ,005 |

a. Dependent Variable: Financial Distress

*Source: SPSS output processed data, 2023*

Based on the results of the t statistical test in table 13, it shows that:

1. The liquidity variable has a calculated t value of -11.013, so the calculated t value is greater than the t table ( $-11.013 > 1.979$ ) and has a significance value smaller than 0.05 ( $0.000 < 0.05$ ). It can be concluded that the liquidity variable has a negative and significant effect on financial distress, so the hypothesis is accepted.
2. The leverage variable has a calculated t value of 6.439, so the calculated t value is greater than the t table ( $6.439 > 1.979$ ) and has a significance value smaller than 0.05 ( $0.000 < 0.05$ ). It can be concluded that the leverage variable has a positive and significant effect on financial distress, so the hypothesis is accepted.
3. The company size variable has a calculated t value of 1.843, so the calculated t value is smaller than the t table ( $1.843 < 1.979$ ) and has a significance value greater than 0.05 ( $0.069 > 0.05$ ). It can be concluded that the company size variable has no effect and is not significant on financial distress, so the hypothesis is rejected.
4. The net profit growth variable has a calculated t value of -2.886, so the calculated t value is smaller than the t table ( $-2.886 > 1.979$ ) and has a significance value greater than 0.05 ( $0.005 > 0.05$ ). It can be concluded that the net profit growth variable has a negative and significant effect on financial distress, so the hypothesis is accepted.

### Simultaneous Significance Test (F Test)

The F statistical test is used to determine the effect of the independent variables together on the dependent variable. This can be seen by comparing the F table, namely (4;  $153 - 4 = 149$ ) of 2.44 with the calculated F as follows:

**Table 14.** Simultaneous Test Results (F Test)

| ANOVA <sup>a</sup> |            |                |    |             |         |                   |
|--------------------|------------|----------------|----|-------------|---------|-------------------|
| Model              |            | Sum of Squares | df | Mean Square | F       | Sig.              |
| 1                  | Regression | 320,519        | 4  | 80,130      | 115,907 | ,000 <sup>b</sup> |
|                    | Residual   | 62,911         | 91 | ,691        |         |                   |
|                    | Total      | 383,430        | 95 |             |         |                   |

a. Dependent Variable: Financial Distress

b. Predictors: (Constant), Net Profit Growth, Leverage, Liquidity, Company Size

*Source: SPSS output processed data, 2023*

Based on the test results above, the calculated F value was 115.907 and a significance value of 0.000. The calculated F value obtained is greater than the F table ( $115.907 > 2.44$ ) and the significance value is smaller than 0.05 ( $0.000 < 0.05$ ).

## Hypothesis Discussion

### The Effect of Liquidity on Financial Distress

The test results state that liquidity has a negative effect on financial distress. So it can be concluded that H1 is accepted. The higher the level of liquidity ratios a company has, the lower the company's chances of experiencing financial distress. This can happen if the company's liquidity increases, the company is able to pay debts on time so that the company can avoid financial distress problems. The results of this research are in line with previous research conducted by (Setyowati & Sari, 2019) that the results of their research show that liquidity has a negative effect on financial distress. And in the same direction as research (Purwaningsih & Safitri, 2022), the results of their research show that liquidity has a significant negative effect on financial distress.

### The Effect of Leverage on Financial Distress

The test results state that leverage has a positive effect on financial distress. So it can be concluded that H2 is accepted. This is because the debt is greater than the assets owned so that the company experiences financial distress which leads to bankruptcy. The results of this research are in line with previous research conducted by (Mahaningrum & Merkusiwati, 2020) stating that leverage has a positive effect on financial distress. And in the same direction as research (Pratiwi & Sudiyatno, 2022), the results of the research show that leverage has a positive and insignificant effect on financial distress.

### The Effect of Company Size on Financial Distress

The test results state that company size has no effect on financial distress. So it can be concluded that H3 is rejected. The size of the company does not affect financial distress because a mature company, even though the company size is small, the company has many working partners, the level of trust from financial institutions in the company is high, as well as recommendations from clients and external parties. The results of this research are not in line with previous research conducted by (Setyowati & Sari, 2019), the results of which show that company size has a negative effect on financial distress. And it is not in the same direction as research (Hakim, et al., 2022) states that company size partially has a negative effect on financial distress.

### The Effect of Net Profit Growth on Financial Distress

The test results state that net profit growth has a negative effect on financial distress. So it can be concluded that H4 is accepted. This is because the company has good profit development and the profits it generates are greater so that the company is able to fulfill its obligations and can also avoid financial distress problems. The results of this research are in line with previous research conducted by (Purwaningsih & Zelina, 2022) showing that net profit growth has a negative influence on financial distress.

## CONCLUSIONS

Based on the results of data analysis carried out by researchers regarding the influence of liquidity, leverage, company size and net profit growth on financial distress in construction sub-sector companies on the Indonesia Stock Exchange and Malaysia Stock Exchange in 2020-2022. It can be concluded that:

1. Liquidity has a negative effect on financial distress in construction sub-sector companies on the Indonesia Stock Exchange and Malaysia Exchange 2020-2022.
2. Leverage has a positive effect on financial distress in construction sub-sector companies on the Indonesia Stock Exchange and Malaysia Stock Exchange 2020-2022.
3. Company size has no effect on financial distress in construction sub-sector companies on the Indonesia Stock Exchange and Malaysia Exchange 2020-2022.
4. Net profit growth has a negative effect on financial distress in construction sub-sector companies on the Indonesia Stock Exchange and Malaysia Stock Exchange 2020-2022.
5. Liquidity, leverage, company size and net profit growth simultaneously influence financial distress in construction sub-sector companies on the Indonesia Stock Exchange and Malaysia Exchange 2020-2022.

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