



## Determination of Financial Distress: Firm Size as Moderating Variable

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### Abstract

This study aims to test and analyze financial ratios to predict a company's financial distress, which is moderated by company size with a research population from the property and real estate sub-sector listing on the IDX. The method used was purposive sampling involving 14 companies that became data processing samples with a research range of 2020-2022. In this study, 42 data were obtained, but outliers were made, so the number of samples was 37. The SEM-PLS-based Structural Equation Model with SmartPLS 4.1.0.1 was used to analyze the data. The results of data processing state that CR, ROA, and DAR significantly affect financial distress. At the same time, company size moderates ROA and DAR regarding financial distress. However, company size does not moderate CR in terms of financial distress. Therefore, financial ratios are a benchmark to predict financial stress. Businesses can use the findings of this study to predict financial crises. The earlier the signs of financial distress can be identified; the company management will have the opportunity to find solutions to the problems faced immediately.

Keywords: Current Ratio, Return on Asset, Debt to Asset Ratio, Firm size, Financial Distress

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### 1. Introduction

The increasingly advanced and developing era of globalization causes competition in the business world to be unavoidable. In this case, the companies involved must be good at making strategies to be ready to compete in the global arena. Many companies are competing fiercely to increase their performance to the maximum so that financial difficulties are not experienced by all companies experiencing a decline in economic performance, one of which is the property and real estate sub-sector company. China's largest property company, Evergrande, 2021 experienced a default condition by recording a debt of 4,400 trillion rupiah (Sorongan, 2021). The company is in danger of defaulting on debt payments, which results in the company experiencing financial distress. Companies that take loans are in the highest risk category because they can experience financial difficulties and failure to pay (Triyani & Setyahuni, 2023).

The crisis of financial difficulties in companies in China is now continuing with the Kaisa Group Holdings company, which is the 27th most prominent real estate company in China, threatened with debt default. The Kaisa Group Holdings company can arguably not meet the target of paying its matured debt of US\$ 400 million or the equivalent of IDR 200.78 m (Andrianto, 2021). This can happen because the company is not careful in determining the debt amount, which can cause liquidity problems. If not handled properly, this situation could lead to bankruptcy.

Based on the Financial Services Authority report, in 2022, the global economy tends to experience a slowdown, impacting the domestic economy. Until the end of 2022, Indonesia's economic growth reached 5.01% yoy. GDP at current prices reached Rp19,588.4 trillion, while GDP per capita reached Rp71.03 million or equivalent to US\$4,783.9. This shows a significant increase of 15.42%, which is higher than the achievement in 2021, which was 3.69%. Furthermore, during 2022, Indonesia's economic growth reached 5.31%, the highest growth rate since 2014. The domestic economy has experienced a decline, which can be seen from the Gross Domestic Product (GDP) perspective and the perspective of the JCI financial market. The following is data on the Composite Stock Price Index development throughout 2022.



**Figure 1: Stock Price Movement**

Source: (Otoritas Jasa Keuangan, 2022)

From a financial market perspective, Figure 1 above shows that the JCI in 2022 closed at 6,850.62, an increase of 4.09% year over year. The YoY increase in JCI in 2022 was lower than the increase at the end of 2021 compared to 2020, which amounted to 10.08%. This shows that stock price performance declined throughout 2022 compared to 2021. Since reaching an all-time high on September 13, 2022, at 7,318.02, the Jakarta Composite Index (JCI) movement tends to decline until 2022.

Base done here by the Indonesian Real Estate Company Association (REI) stated that the performance of property sales in the 3rd quarter of 2022 decreased by 14% compared to the previous quarter, where sales experienced growth of 18% (Al-Hafiz, 2023). CNBC Indonesia announced that in 2022, the property and real estate sectoral index corrected by 10.44%, making the sectoral index the sharpest decline after the technology sector. SMRA recorded the sharpest weakening, with a decrease of 32.93%. BSDE and PWON were corrected by 9.41% and 4.31% respectively. In addition, CTRA experienced a decrease of 1.55% this year (Kristianto, 2022). Based on his situation, it is expected that the property and real estate sub-sector has experienced a decline in financial performance, which can affect financial distress.

According to CNBC Indonesia's news, several businesses in the property and real estate sub-sector have experienced a decline in profits and losses. This happened when PT Bumi Serpong Damai Tbk experienced a 1.33% decrease in profit from IDR930.77 billion in the third quarter of 2022 to IDR 918.3 billion. PT Intiland Development Tbk recorded an increase in net loss until September 2022. PT Intiland Development Tbk's financial statements show that the cost of goods sold and direct expenses increased to IDR 1.16trillion, resulting in a gross profit of IDR 758.9billion, or an increase of 0.41% per year (Aaf, 2023).

Several factors that can cause financial difficulties include the company's inability to reduce increasing operating costs, decreasing liquidity, and uncertainty regarding the company's revenue due to dependence on economic conditions (Annisa et al., 2022). Santoso et al. (2022) said that financial distress is when a business does not meet its predetermined financial obligations. Financial distress is a warning signal to companies to maintain business continuity before it is too late and leads to bankruptcy (Younas et al., 2021).

This study uses several financial ratios, including ROA, DAR, and firm size, as moderating factors in predicting financial stress. This method was chosen because it showed mixed and inconsistent results. CR indicates a company's ability to meet its short-term debt, so it can be used to evaluate its liquidity (Brigham et al., 2009).

ROA assesses the efficiency of the company to generate net income from the use of its assets. This relationship is after interest from taxes with the company's average assets. The statistics above indicate a few practical ways that businesses use the data to achieve profit. A high ROA value states that the company can profit, which is used to finance operations and fulfill its obligations (Carolina, 2017).

DAR is the extent to which a company's assets are funded by debt (Kasmir, 2008). Companies with small assets utilize large debt to support their growth, resulting in large interest payments. The amount of assets owned by a company determines the size of the company.

In a critical "company," the more assets a company has, the bigger its size. Potential investors should consider the company's overall assets when making their investment plans, using its financial ratio capacity to assess financial difficulties.

Aginio Bimantio & Ichsanuddin Nur (2023) investigates the relationship between financial ratios and financial distress using the moderating variable firm size. This analysis uses a sample of construction sector companies. The results stated that CR and DAR positively impact financial distress. ROA has no effect. In addition, research shows that firm size can reduce the impact of DAR and ROA on financial distress. Purnamasari et al. (2020) examined how financial ratios such as CR, DAR, and ROA correlate with financial stress. The results state that CR, DAR, and ROA

significantly negatively impact financial distress. On the other hand, according to the results of Moderate Regression Analysis (MRA), company size has a moderate impact on the relationship between the three variables of financial distress. In addition, Riono Putri & Ichsanuddin Nur (2023) conducted research with moderating variables ROA, CR, DAR, and firm size. The results stated that ROA and DAR have a unidirectional correlation with increasing financial distress; however, the current ratio has a relatively small impact on financial stress. The results state that CR, DAR, and ROA significantly negatively impact financial distress.

This research was conducted to contribute to prevention efforts before financial distress occurs. The aim is to investigate more deeply the effect of financial ratios on financial distress, the results of previous studies, and various phenomena and findings regarding financial ratios. This differs from previous studies that use research models that examine the role of company size in moderating the relationship between final ratios and financial distress on individual ratings. The property and real estate subsector is a sample because this sector contributes significantly to central and local government revenues, including providing employment and receiving much labor.

## **2. Literature Review**

### **2.1. Signal Theory**

This theory shows that management steps help convey signals to investors to see the company's prospects (Brigham & Houston, 2013). Signal theory helps describe information in a company's financial statements, which is expected to reflect the actual conditions as a guide for investors or people who will invest and as a reference for assessing the company's sustainability. The information conveyed can be good news, namely good company performance or dividend distribution, or lousy news information, namely losses or increased debt burden, causing the risk of bankruptcy

### **2.2. Financial Distress**

Financial distress is a term used to describe a situation in which a company experiences unhealthy financial conditions. An unhealthy company experienced by the company is a sign that the company has the potential for bankruptcy because financial distress is a phase in which the company faces shrinking sales turnover and losses continuously and for a long time before finally experiencing bankruptcy (Nugroho et al., 2021).

### **2.3. Financial Ratio Analysis**

Financial reports analyze financial ratios to assess a company's financial condition. According to Restianti & Agustina (2018), financial statement analysis is the most crucial indicator of whether a company will go bankrupt due to financial problems. Financial statement analysis can use liquidity, profitability, leverage, and sales growth ratios to predict the possibility of financial distress (Kusuma et al., 2022). Investors can use this analysis to decide whether to invest, continue, or stop investing.

### **2.4. Current Ratio to Financial Distress**

CR is a financial tool that evaluates the company's ability to meet short-term debt obligations. The higher the current ratio value, when the company's ability to meet short-term debt obligations increases, the risk of financial distress will be more negligible (Brigham & Houston, 2013). In line with signal theory, it says that when a company faces difficulties meeting its short-term debt obligations. Research by Septyanto & Welandasari (2020) and Sunaryo (2021) shows that CR results have a significant and positive effect on financial distress. The findings by Indi Savery (2024) and Ramadani & Ratmono (2023) state that CR has a negative effect on financial distress.

### **2.5. Return on Asset to Financial Distress**

A type of profitability ratio called ROA is net income from using its assets, and it is a successful measurement that assesses how well the company is doing (Susanto & Setyowati, 2021). If the company has a high return on assets (ROA) value, it is well-managed, which means it will not experience financial problems. Research by Sunaryo (2021) and Susanti et al. (2020) state that ROA has a significant impact on financial distress. However, research by Dwiantari et al. (2021) and Indi Savery (2024) found that ROA negatively and significantly impacts financial distress.

## 2.6. Debt to Asset Ratio to Financial Distress

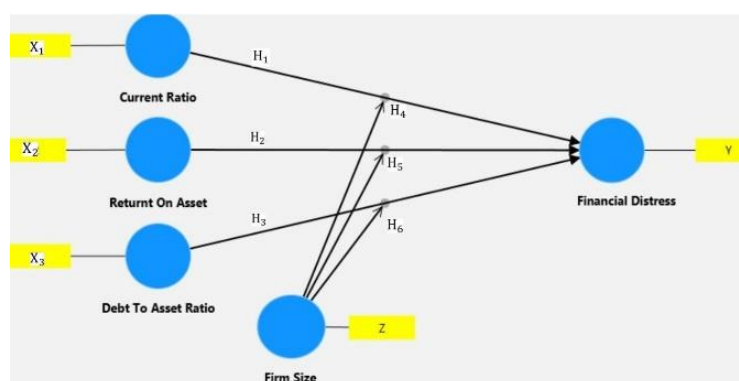
A ratio known as DAR determines how much debt affects asset management or the extent to which a company's assets are funded by debt (Kasmir, 2008). A more significant ratio indicates that a substantial portion of the company's assets finance debt. Research conducted by Giarto & Fachrurrozie (2020) and Indi Savery (2024) shows DAR has a significant positive effect on financial distress. Proving that DAR does not affect financial distress. Different findings are shown in the research of Ramadani & Ratmono (2023) and Naibaho & Natasya (2023), which states that DAR has a negative significant effect on financial distress.

## 2.7. Firm Size Moderates the Effect of CR, ROA, and DAR on Financial Distress

A company's size is a factor investors consider when planning investments. Large companies have easy access to financial markets, so they are more adaptive and can obtain funding to improve their performance. Company size is assessed based on total assets, total revenue, total profit, tax burden, and other factors (Brigham et al., 2009). The ability of financial ratios when analyzing financial difficulties depends on the amount of company assets which reflects the size of the company. Because they have a sizable amount of collateral, large companies are considered to have low credit risk. Company size can strengthen financial ratios in predicting financial distress, but companies with small assets may experience financial problems because they are unable to pay off their liabilities. This illustrates that company size can affect the relationship between financial ratios (CR, ROA, debt to asset) to financial distress Purnamasari et al. (2020) and Ramadani & Ratmono (2023).

## 2.8. Research Model

This study has three independent variables, CR, ROA, and DAR, and one moderating variable: Firm Size. The dependent variable is Financial Distress.



**Figure 2.** Conceptual Framework

Source: Data processed in SmartPLS (2023)

## 2.9. Hypothesis

A hypothesis is a temporary conjecture proposed by a researcher in a study. This conjecture is developed by utilizing existing ideas and previous research findings to answer the topic under study. The hypotheses proposed in this study are:

H<sub>1</sub>: CR has a significant effect on Financial Distress

H<sub>2</sub>: ROA has a significant effect on Financial Distress

H<sub>3</sub>: DAR has a significant effect on Financial Distress

H<sub>4</sub>: Firm Size can moderate the relationship between CR and Financial Distress

H<sub>5</sub>: Firm Size can moderate the relationship between ROA and Financial Distress

H<sub>6</sub>: Firm Size can moderate the relationship between DAR and Financial Distress

### 3. Materials and Methods

#### 3.1. Materials

This research with numerical data from financial reports on the IDX website [www.idx.co.id](http://www.idx.co.id) is a type of quantitative research with a causal associative approach, which is research that questions the correlation between 2 or more variables (Sugiyono, 2019). This study involved 14 businesses in the property and real estate subsector. The purposive sampling method was used to select the sample. Several criteria were used for the property and real estate subsector in 2020-2022. Namely, companies that present financial reports listed on the IDX no later than the IPO in 2020 share complete financial reports and have positive profits. Based on the research characteristics, 14 companies that met the requirements for three periods became research samples.

#### 3.2. Methods

This study uses SEM-PLS with the Moderated Regression Analysis (MRA) model to evaluate the hypothesis, assisted by SmartPLS version 4.1.0.1. It aims to determine the relationship between variable X and variable Y. Before evaluating the hypothesis, descriptive analysis, measurement model evaluation, and structural model evaluation were carried out.

##### 3.2.1. Operational Definition and Variable Measurement

The selection of the research title directed the selection of independent, dependent, and moderating factors. An explanation of each of these factors is given below:

**Table 1.** Operational Variables

No.	Variables	Measurements	References
a)	Current Ratio ( $X_1$ )	CR = Current Assets/Current Liabilities	(Waqas & Md-Rus, 2018)
b)	Return on Asset ( $X_2$ )	ROA = Earnings After Tax/Total Assets	Purnamasari et al. (2020)
c)	Debt to Asset Ratio ( $X_3$ )	DAR = Total Liabilities/Total Assets	(Ugur et al., 2022)
d)	Financial Distress (Y)	$Z' = 0.717 X_1 + 0.847 X_2 + 3.107 X_3 + 0.420 X_4 + 0.998 X_5$	(Martini & Setyawasih, 2022)
e)	Firm Size (Moderation Variable – M)	Firm Size = Log (Total asset)	(Isayas, 2021)

In this study, the Z'-score formula is used:  $X_1$  shows working capital to total assets;  $X_2$  shows retained earnings to total assets;  $X_3$  shows earnings before interest and taxes to total assets;  $X_4$  shows book value of equity to total debt; and  $X_5$  shows sales to total assets. According to the cut off point value of the Altman Z'-Score model, it is classified if the company Z'-Score value  $<1.23$  is considered to be experiencing financial problems and Z'-Score value  $>2.9$  is considered healthy / not experiencing financial problems.

##### 3.2.2. Formula / Equation

SEM-PLS was utilized to examine constructs or latent variables through their indicators. The assessment of the inner model (structural model) is a crucial step in SEM-PLS analysis (Ghozali, 2021). The inner model equation presented in this study is as follows:

$$\eta = b_1\varepsilon_1 + b_2\varepsilon_2 + b_3\varepsilon_3 + b_4(\varepsilon_1 \times \varepsilon_4) + b_5(\varepsilon_2 \times \varepsilon_4) + b_6(\varepsilon_3 \times \varepsilon_4) + e$$

## 4. Results and Discussion

### 4.1. Result

#### Descriptive Statistical Analysis

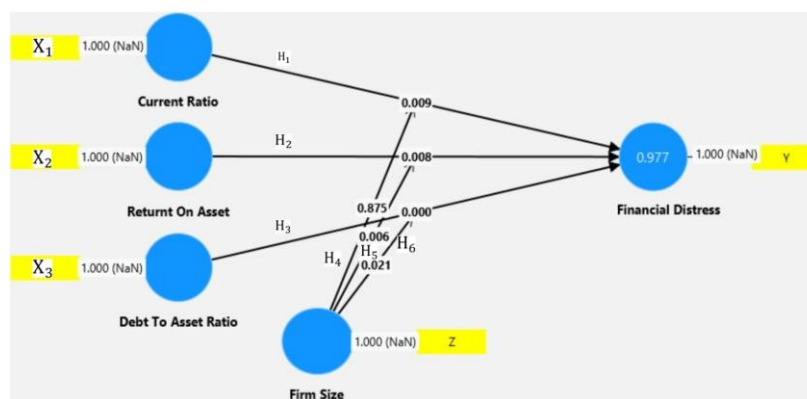
This study has 14 companies in the property and real estate sub-sector research data for 3 years, this data uses annual data. So that 42 data are obtained, but 5 data outliers are removed, so this research is with 37 data. Therefore, from this data with the results:

**Table 2.** Descriptive Statistical Analysis

Variable	N	Mean	Median	Min	Max	Standard Deviation
CR	37	2.902	2.590	0.940	7.510	1.668
ROA	37	0.041	0.040	0.000	0.180	0.037
DAR	37	0.388	0.330	0.120	0.790	0.172
Z	37	29.988	30.140	27.130	31.810	1.210
Y	37	1.093	1.830	0.300	3.800	0.707

Source: SmartPLS Output Results 2023

Table 2. states the results of descriptive statistical tests with data processing 37. Mean CR > median, and < maximum value. States that the mean company can pay current liabilities with its assets. Mean ROA > median, but < maximum value. States that the mean company can earn a profit. Mean DAR > median, but < maximum value. States that the mean company is highly responsible but still within normal limits. Mean company size (Z) < median and maximum, but > minimum value and standard deviation. This states that the size of the company is well distributed. The minimum value on Financial distress (Y) of 0.300 indicates that the company is in a distressed zone or has the potential to experience financial difficulties (Z'score <1.23), while the maximum value of 3,800 indicates that the company is in a safe zone or avoids the risk of bankruptcy. The average value of financial distress < median value and maximum value, but more significant than the standard deviation value. This illustrates that the company is in a safe zone or avoids the risk of financial difficulties (Z'score >2.9). This study also conducted an internal model analysis, also known as a structural model, with the aim of seeing how the variables in this study interact with each other.



**Figure 3.** Inner Model Results

Source: SmartPLS Output Results 2023

Based on the results of Figure 3. the outer loadings value is obtained to assess the measurement model, the R-square value to assess the structural model, the P Values value tests the research hypothesis.

#### Evaluation of Measurement Model

##### Convergent Validity Test

This test uses the loading factor measurement provisions of the loading factor value > 0.7 (Ghozali, 2021).

**Table 3.** Outer Loadings

	CR	ROA	DAR	FD	Firm Size	Firm Size x CR	Firm Size x ROA	Firm Size x DAR	Information
CR	1.000								Valid
ROA		1.000							Valid
DAR			1.000						Valid
FD				1.000					Valid
Firm Size					1.000				Valid
Firm Size x CR						1.000			Valid
Firm Size x ROA							1.000		Valid
Firm Size x DAR								1.000	Valid

Source: SmartPLS Output Results 2023

Table 3 shows convergent validity by looking at the value of factor loadings for each variable: CR, ROA, DAR, Firm Size, and Financial Distress. Loading factors above 0.70 is highly recommended, but if the value is between 0.50 - 0.60, it is still acceptable as long as the model is in development. From this table, the factor loadings of each variable with a value of 1,000 > 0.70 mean that convergent validity is accepted.

### Structural Model Evaluation

**Table 4.** R-Square and F-Square

Variable	R- Square	R- Square Adjusted	F- Square
CR – Y			0.531
ROA – Y			0.640
DAR – Y			5.261
Z			0.159
Y	0.977	0.977	
CR*Z – Y			0.004
ROA* Z – Y			0.838
DAR*Z – Y			0.616

Source: SmartPLS Results 2023

Table 4 indicates that 97.7% of the variance in financial difficulties (Y) can be accounted for by CR, ROA, DAR, and company size (Z). The remaining 2.3% is attributed to other variables.

### Hypothesis Test

**Table 5.** Path Coefisien

Path Coefisien	Original Sampel	Sampel Mean	Standard Deviation	T Statistik	P-Value	Decision
CR – Y	0.135	0.132	0.051	2.631	0.009	Accepted
ROA – Y	0.252	0.254	0.095	2.653	0.008	Accepted
DAR – Y	-0.826	-0.818	0.124	6.680	0.000	Accepted
CR*Z – Y	0.015	0.014	0.092	0.157	0.875	Rejected
ROA* Z – Y	-0.363	-0.325	0.133	2.738	0.006	Accepted
DAR*Z – Y	0.299	0.267	0.130	2.306	0.021	Accepted

Source:

Source: SmartPLS Results 2023

$$\text{Financial distress} = 0.135\text{CR} + 0.252\text{ROA} - 0.826\text{DAR} + 0.015(\text{CR} \times \text{FS}) - 0.363(\text{ROA} \times \text{FS}) + 0.299(\text{DAR} \times \text{FS})$$

The CR regression coefficient value is 0.135 with a positive value; this indicates that if each CR has increased by one unit, financial distress will increase by 0.135, and the Current ratio obtained a T-statistic value of  $2.631 > 1.96$ , and P-Values obtained  $0.009 < 0.05$ . The conclusion is that the CR variable has an effect on financial distress.

The ROA regression coefficient value is 0.252 positive; if each ROA increases by 1 unit, financial distress will increase by 0.135, and the ROA statistical T value of  $2.653 > 1.96$  and P-Value obtained  $0.008 < 0.05$ . So, it is concluded that the ROA variable has an effect on financial distress.

The regression coefficient value of DAR is -0.826 negative value; this indicates that if each DAR increases by 1 unit, financial distress will decrease by -0.826 and DAR obtained a T statistical value of  $6.680 > 1.96$  and the P-Value obtained is  $0.000 < 0.05$ . So, it is concluded that the DAR variable has an effect on financial distress.

The regression coefficient value for the moderating variable CR×Firm size is 0.015, which is a positive value; this indicates that each CR×Firm size moderation of 1 unit will increase financial distress by 0.015. Moderation variable CR×Firm size obtained a statistical T value of  $0.157 < 1.96$  and a P-value of  $0.875 > 0.05$ . It is concluded that Company Size does not moderate the effect of CR with Financial distress.

The regression coefficient value for the ROA×Firm size moderation variable is -0.363, which is a negative value; this indicates that every ROA×Firm size moderation of 1 unit reduces financial distress by -0.363. Moderation variable ROA×Firm size with a statistical T value of  $2.738 > 1.96$  and a P-Value of  $r 0.006 < 0.05$ . So, it is concluded that Company Size can moderate the effect of Return on Assets with Financial distress.

The regression coefficient value for the moderation variable DAR×Firm size is 0.29 which is a positive value, this indicates that every DAR×Firm size moderation of 1 unit will increase financial distress by 0.299. Moderation variable DAR×Firm size obtained a statistical T value of  $2.306 > 1.96$  and a P-value of  $0.021 < 0.05$ . So, it is concluded that Company Size moderates the effect of DAR with Financial distress.

## 4.2. Discussion

### Effect of CR on Financial Distress

As shown by the results of the analysis of the effect of CR on Financial Distress, there is a significant effect on financial distress. A high CR value states the company's ability to pay off its short-term debt and indicates that the company's financial condition is quite good because the company has sufficient current assets to fulfil its obligations. This research is in line with Sunaryo (2021) and Aginio Bimantio & Ichsanuddin Nur (2023), which state that the current ratio significantly impacts financial stress.

### Effect of Return on Asset on Financial Distress

The conclusion from data management shows that ROA has a significant influence on financial distress in the property and real estate sub-sector. The results of the study state that financial distress in the asset variable is well and strongly influenced by Return. Investors tend to like high ROA values because this indicates the company's ability to manage its assets well. Thus, using ROA variables is considered an appropriate indicator in this study. High returns can indicate efficiency in the company's use of assets. The findings of this analysis are in line with Septyanto & Welandasari (2020) and Dirman (2020), who say that ROA has a significant effect on financial distress.

### Effect of Debt to Asset Ratio on Financial Distress

The more debt the company has, the higher the loan interest that must be paid by the company. Companies have difficulty paying debt and interest if an increase does not follow large funding through debt in revenue. With a higher DAR, the company is more vulnerable to financial problems. The results of data management show that DAR has a significant effect on financial distress. The findings of the analysis support the research of Normiati & Amalia (2021) and Giarto & Fachrurrozie (2020) saying that DAR affects financial distress positively and significantly.

### The Effect of CR on Financial Distress with Firm Size as a Moderating Variable

Company size moderating the relationship between CR and financial distress shows no significance. This indicates that company size does not have a unidirectional relationship, meaning that company size weakens the relationship between CR and Financial Distress. In line with Sunaryo (2021) and Purnamasari et al. (2020), they found that company size as a moderating variable reduces financial stress. If companies have assets that are not used effectively, they may experience a decrease in assets and an increase in liabilities in the future.

### The Effect of ROA on Financial Distress with Firm Size as a Moderating Variable

Company size moderates the relationship between ROA and financial distress, showing significant results. This indicates that company size has a unidirectional relationship, meaning that company size strengthens the relationship



between ROA and Financial Distress. Company size means a company with more assets and profits. Companies increasing profits will have expansion opportunities. High assets and profits are essential for company progress and prevent financial distress. In line with Riono Putri & Ichsanuddin Nur (2023) and Purnamasari et al. (2020), found that company size can strengthen ROA against financial distress.

### **The Effect of DAR on Financial Distress with Firm Size as a Moderating Variable**

Company size moderating the relationship between DAR and financial distress shows significant results. This states that company size strengthens the relationship of debt to assets to financial distress, and company size strengthens the relationship of debt to assets to financial distress. According to this, a company's size impacts its liabilities and assets, making it possible to forecast when it may experience financial trouble. This study supports the research of Purnamasari et al. (2020) and Ramadani & Ratmono (2023), who found that company size can increase the leverage variable in the debt-to-asset proxy for financial.

## **5. Conclusion**

Based on data analysis related to the effect of CR, ROA, and DAR with Firm Size as a moderating variable on financial distress, the conclusions obtained are: (1) CR significantly affects financial distress in the property and real estate sub-sector. (2) ROA has a significant effect on financial distress. (3) DAR has a significant effect on financial distress. (4) Firm size as a moderating variable has no significant effect on financial distress. (5) Firm size can moderate the relationship between CR and financial distress. (6) Firm size can strengthen the effect of DAR on financial distress. Suggestions for further research: (1) Add independent variables and the number of research samples during the company period. (2) Other moderating variables are used to develop the results of strengthening/weakening the independent variable on the dependent variable. (3) Researchers analyze other financial or non-financial factors that affect companies in predicting financial distress.

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