

# Effects of Return on Assets, Firm Size, and Institutional Ownership on Financial Distress with Capital Structure as a Moderating Variable (An Empirical Study on the Manufacturing Companies Listed on Indonesia Stock Exchange)

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## ABSTRACT

This research investigates and tests the effects of Return on Assets, firm size, and institutional ownership on financial distress in the manufacturing companies listed on the Indonesia Stock Exchange and whether the capital structure can moderate the correlation between independent and dependent variables. This causal research uses secondary data, which are analyzed using SPSS. It takes the manufacturing companies listed on Indonesia Stock Exchange from 2016 until 2020 as the population. The purposive sampling technique is employed to select 84 companies and obtain 420 observations by multiplying the sample by five years of research. The findings indicate that partially Return on Assets has positive and significant effects on financial distress, firm size has positive and significant effects on financial distress, and institutional ownership has negative and insignificant effects on financial distress. In addition, the capital structure cannot moderate the effects of Return on Assets, firm size, and institutional ownership on financial distress.

**Keywords:** return on assets, firm size, institutional ownership, capital structure, financial distress.

## INTRODUCTION

Business activities in the current global era have shown that competition between

similar and dissimilar companies is very tight. Intense competition has resulted in companies being required to fulfil complex societal desires. Since the 1998 crisis, Indonesia's manufacturing industry has continued to stagnate. According to Bank Permata's economist, Josua Pardede in Oke Finance (2016), the growth of Indonesia's manufacturing industry has slowed since the 1998 crisis and has even been below the national economic growth. Even based on his records, in 2015, the growth of the manufacturing sector in quarters I-IV was in rows 4 0%, 4.1%, 4.5%, and 4.4%. Meanwhile, in the first-third quarters of 2016, it was 4.6%, 4.7%, and 4.6%, respectively.

In addition, since the global crisis that occurred in mid-2008, Indonesia's economic condition has been quite unstable due to the inability to anticipate global economic developments, resulting in the bankruptcy of companies in Indonesia. Bankruptcy does not appear suddenly but through a process or stage where management should be able to recognize the signs of bankruptcy early on. One of the signs of bankruptcy that can be recognized early is the occurrence of financial difficulties in the related company. Mohammed & Kim-Soon (2012) stated that financial distress could be an indicator or

early sign of bankruptcy. Financial distress is a condition that must be avoided so that the company does not enter the bankruptcy stage.

In mid-2019 (July 2019), based on the Purchasing Managers' Index (PMI) figures released by IHS Markit, it was at 49.6 or below the previous month's figure of 50.6 (Bisnis.com, 2019). The headline index is a single indicator that provides a brief overview of business conditions in the manufacturing sector and is composed of questions about demand, output, employment, delivery times from suppliers and inventory. It is reinforced by a significant decline in early November 2019, where the manufacturing PMI fell significantly to 47.7 from the previous level of 49.1. This figure shows the lowest manufacturing PMI value since 2015 (katadata.co.id, 2019).

Based on data reported on katadata.co.id (2019), 135 stocks experienced an increase on the same day as Sky Energy Indonesia (JSKY) shares which were included as the top gainers with a 13.91% strengthening to Rp 655. On the other hand, 299 shares were corrected, with Perusahaan Gas Negara (PGAS) as the top loser, dropping 12.32% to Rp 1,850. The sectors that caused the index decline consisted of 2 sectors: (1) the various industry sector, which fell 1.87% and (2) the mining sector, which fell 1.8%.

The decline in the performance of the company's shares may result in the company being delisted from listing on the Indonesia Stock Exchange. The delisting process is carried out because the shares of a company experience a decline in performance, so they no longer meet the listing requirements. The delisting process can not only be carried out by the Indonesia Stock Exchange but can also be submitted by the related company (issuer) or voluntary delisting. During 2017-2019, 18 companies listed on the Indonesia Stock Exchange were delisted. The details of the companies that were delisted during 2017-2019 are as follows:

**Table 1. Companies that are Delisted from the Indonesia Stock Exchange in 2017-2019**

Company	Stock Code	Industrial Sector	Listed Date
Ciputra Property Tbk	CTRP	Property & Real Estate	19/01/2017
Ciputra Surya Tbk	CTRS	Property & Real Estate	19/01/2017
Sorini Agro Asia Corporindo Tbk	SOBI	Kimia	03/07/2017
Citra Maharlika Nusantara Corpora Tbk	CPGT	Transportasi	19/10/2017
Inovisi Infracom Tbk	INVS	Telekomunikasi	23/10/2017
Berau Coal Energy Tbk	BRAU	Pertambangan	16/11/2017
Permata Prima Sakti	TKGA	Pertambangan	16/11/2017
Lamicitra Nusantara Tbk	LAMI	Property & Real Estate	28/12/2017
PT Dwi Aneka Jaya Kemasindo Tbk	DAJK	Pulp & Kertas	18/05/2018
Truba Alam Menunggal Engineering Tbk	TRUB	Konstruksi non Bangunan	12/09/2018
Jaya Pari Steel Tbk	JPRS	Logam	08/10/2018
Taisho Pharmaceutical Indonesia Tbk	SQBB	Farmasi	21/03/2018
PT Bank Mitraniaga Tbk	NAGA	Bank	23/08/2019
Sekawan Intipratama Tbk	SIAP	Plastik & Kemasan	17/05/2019
Bara Jaya Internasional Tbk	ATPK	Batubara	30/09/2019
Bnak Nusantara Parahyangan Tbk	BNBP	Bank	02/05/2019
Grahamas Citrawisata Tbk	GMCW	Perdagangan Eceran	13/08/2019
PT Sigmagold Inti Perkasa Tbk	TMPI	Perdagangan Besar	11/11/2019

Source: <http://www.sahamok.com/emiten/saham-delisting>

In 2017, the Indonesia Stock Exchange (IDX) removed 8 companies from the stock exchange listing, namely: PT Ciputra Property Tbk (CTRP), PT Ciputra Surya Tbk (CTRS), PT Sorini Agro Asia Corporindo Tbk (SOBI), PT Citra Maharlika Nusantara Corpora Tbk (CPGT), PT Inovisi Infracom Tbk (INVS), PT Barau Coal Energy Tbk (BRAU), PT Permata Prima Sakti Tbk (TKGA), and PT Lamicitra Nusantara Tbk (LAMI).

One of the delisted companies is PT. Lamicitra Nusantara Tbk (LAMI) for the reasons (1) during the listing of its shares on the stock exchange, it has never conducted a rights issue or issued debt securities, (2) the company's stock transactions on the stock exchange are not active so that the movement is below the average property issuer in Indonesia, and (3) the company is unable to meet the requirements as a go public company determined by the stock exchange authority. (Surabaya. tribunnnews.com, 2017).

Several things that show companies experiencing financial distress are company losses, factory closures, dividend reduction, termination of employment, the resignation of the Chief Executive Officer (CEO), and a decrease in stock prices. On November 23, 2017, DAJK was declared bankrupt by the Central Jakarta Commercial Court. It is because the court granted the request for cancellation of the peace agreement by PT

Bank Mandiri Tbk (BMRI) as the creditor. Based on the company's consolidated financial statements until the third quarter of 2017, DAJK is known to have debts to several banks, which amounted to Rp. 870.17 billion. The bank debt is included in the company's long-term liabilities, reaching Rp 913.3 billion. In detail, debts to Standard Chartered Bank amounted to Rp 262.4 billion. PT Bank Mandiri Tbk amounted to Rp 414.26 billion, Commonwealth Bank Rp 50.4 billion, Citibank Bank Rp 26.6 billion, and Bank Danamon Rp 9.9 billion (Finance .detik.com, 2018).

PT Bank Nusantara Parahyangan Tbk (BBNP), the first company to go private in 2019, on May 2, 2019. This BBNP share was delisted due to its shareholder MUFG Bank Ltd's corporate action to merge with PT Bank Danamon Tbk (BDMN). Based on the records of katadata.co.id (2019), the merger was carried out because, based on the Financial Services Authority Regulation (POJK) Number 39 of 2017, MUFG Bank must comply with the sole proprietorship policy by merging. MUFG Bank effectively owned 40% of Bank Danamon since August 3, 2018, and since 2007 in BNP, both directly and through its subsidiaries, with a total shareholding of 75.5%. Bank Danamon acts as the bank that accepts the merger. With this merger, MUFG Bank currently owns 94.10% of Bank Danamon's shares. Bank Danamon's shares, before being effectively traded as a merged company, were recorded at Rp 7,100/share on May 2, 2019. However, after being effectively traded after the merger, the shares fell to Rp 6,000/share on May 3, 2019. Meanwhile, until the first session today, Monday (23/9), BDMN shares were at Rp 4,710/share. (Kata.data.com, 2019)

This research was conducted on manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2016 to 2020. Researchers are interested in researching manufacturing companies because this type of company has a high bankruptcy rate based on data on OK finance. The manufacturing industry has

decreased since the 1998 crisis and strengthened by data from katadata.co.id, which states that in 2019 the manufacturing industry experienced a decline.

## **LITERATURE REVIEW**

### **Financial Distress**

According to Suci & Niki (2009), financial distress (financial distress) is an early stage before bankruptcy or liquidity due to a decline in financial conditions. If the company is already in a state of financial distress, then management must be careful because it could enter the stage of bankruptcy. Management of companies experiencing financial distress must take action to overcome these financial problems and prevent bankruptcy.

A company's bankruptcy can be characterized by financial distress, a condition where the company is weak in generating profits or tends to experience a deficit. The stages of bankruptcy can be described as follows (Kordestani et al. 2011):

1. Latency. In the latency stage, Return On Assets (ROA) will decrease.
2. Shotgun of Cash. In the cash shortage stage, the company does not have enough cash resources to meet its current obligations, although it may still have a strong level of profitability.
3. Financial distress. Financial distress can be considered a financial emergency, where this condition is close to bankruptcy.
4. Bankruptcy. If the company cannot cure the symptoms of financial distress (financial distress), then the company will go bankrupt.

According to Rodoni & Ali (2010), when viewed from the financial condition, three conditions cause financial distress: insufficient capital or lack of capital, the amount of debt and interest expenses and suffering losses. These three aspects are interrelated. Therefore, a balance must be maintained so that the company avoids

financial distress conditions that lead to bankruptcy.

According to Fachrudin (2008), grouping the causes of difficulties is called the basic model of bankruptcy or the trinity of causes of financial difficulties. There are three main reasons why companies can experience financial distress and then go bankrupt, namely:

1. The neoclassical model of financial distress and bankruptcy occurs if the allocation of resources within the company is inappropriate. Management is less able to allocate asset resources in the company for the company's operational activities.
2. Financial model that is a correct mix of assets but a wrong financial structure with liquidity constraints. It means that although the company can survive in the long term, it must also go bankrupt in the short term.
3. Corporate governance models. According to this model, bankruptcy has the right mix of assets and financial structure but is poorly managed. This inefficiency drives the company out of the market due to unsolved problems in corporate governance.

In this study, the determination of the company's financial distress was carried out using a dummy variable with measurements of 1 (financial distress) and 0 (non-financial distress) with the following categories:

1. A company is said to be in financial distress if, for two consecutive years, the company has a negative net operating income.
2. The company is said to be not experiencing financial distress if, for two consecutive years, the company has not experienced negative operating net income.

### Return On Assets

Return on Assets (ROA) is how much the company's effectiveness in generating profits with its utilization. ROA is a form of

profitability ratio to measure the company's ability to generate profits using total assets after capital costs are removed from the analysis. ROA is calculated from net income with total assets (Syamsudin, 2009). According to Atmini in Widarjo & Setiawan (2009), profitability is the level of success or failure of the company over a specific time. According to Lenox et al. in Pasaribu (2008), the more the company loses, the higher the profitability to experience financial distress.

According to Widarjo & Setiawan (2009), profitability shows the efficient and effective use of company assets because this ratio measures the company's ability to generate profits based on the use of assets. Using company assets will reduce the costs incurred, and the company will get savings and have sufficient funds to run its business (Andre & Taqwa, 2014). With sufficient funds, the possibility of the company experiencing financial distress will be less.

In this study, ROA is proxied to be:

$$ROA = \frac{\text{Net Profit}}{\text{Total Assets}}$$

### Firm Size

Company size is a scale that can classify large and small companies in various ways, namely total asset sales, stock market value, and average sales level Machfoedz (1994) in Nurhotimah (2015).

Company size can be seen from the total assets owned. Companies with significant total assets indicate that their company has reached maturity because its cash flow is positive and is considered to have good prospects in a relatively long period. In addition, this also reflects that the company is relatively more stable and more able to generate profits than companies with small total assets (Rachmawati and Triatmoko (2007) Nurhotimah (2015).

According to Nugroho (2011) in Nurhotimah (2015), three theories implicitly explain the relationship between company size and the level of company profits, namely:

1. Technological theory emphasizes the physical model, economy of scale, and scope as factors that determine the optimal size of the company and its effect on profits.
2. Organizational theory explains the relationship between profitability and firm size associated with organizational transaction costs.
3. Institutional theory, relating company size to factors such as the statutory system, anti-trust regulations, patent protection, market size, and financial market developments.

In this study, company size is calculated using the logarithm of the company's total assets according to Brigham and Houston (2001) in Harijono (2014).

### **Ownership Institutional**

Institutional ownership is the number of company shares owned by non-bank institutions. Institutional ownership is share ownership by other institutional parties, such as other institutions or companies. Institutional ownership is the party that has the most influence on making a decision because it is the majority shareholder, meaning it owns most of the shares in the company. In addition, institutional ownership is the party that gives control to management in financial procedures in the company (Ngadi & Ekadjaja, 2019).

### **Capital Structure**

Capital structure is a combination of various components on the right side of the balance sheet, namely debt and equity (Asnawi & Wijaya, 2005). According to Brigham & Gapenski (1999), capital structure is a mix of debt and equity. More clearly where, Weston & Copeland (1995) says that the capital structure is permanent financing consisting of long-term debt, preferred stock, and shareholder capital.

The theory of Modigliani Miller (MM) states that the firm value does not depend on the capital structure. Brigham & Houston (2001) argue that the proportion of debt and equity has no impact on the success of

increasing firm value. In the theory of MM II (tax shield), using debt can save taxes that benefit the company's finances. According to MM, the optimal capital structure is entirely debt. The trade-off theory explains that the company will be in debt to a certain level where the value of the tax shield will equal the value of the cost of financial distress (financial distress).

According to the Agency Cost theory, the greater the agency costs, the lower the firm value for shareholders or disincentives for issuing debt. Packing order theory states that companies prefer internal funding and will choose external funding from the safest and lowest risk securities.

In this study, the capital structure is proxied by the leverage/solvability ratio, namely the Debt To Equity Ratio (DER), namely:

$$DER = \frac{\text{Total Debt}}{\text{Total Equity}}$$

### **Previous Research Review**

Ahmad (2013) researched the Analysis of Financial Distress in the Indonesia Stock Exchange. The results showed that CAR, CR, ROA, ROE, TATO, EDU, EXP, and WCTA had a negative effect on financial distress. Meanwhile, DAR and DER positively influence the prediction of the occurrence of financial distress in a company.

Alim (2017) researched the Analysis of Bankruptcy Predictions with the Altman Z-Score Model in Food and Beverage Companies Listed on the Indonesia Stock Exchange. The results showed that there are 4 companies that have the potential to go bankrupt, namely PT Tiga Pilar Sejahtera Food Tbk, PT Tri Banyan Tirta Tbk, PT Indofood Sukses Makmur Tbk, and PT Pradisha Aneka Niaga Tbk. In addition, there is one company that is in a grey position and nine companies that are in a healthy condition.

Ananto et al. (2017) examined the Effect of Good Corporate Governance (GCG), Leverage, Profitability and Company Size on Financial Distress in Consumer Goods

Companies Listed on the Indonesia Stock Exchange. The results showed that leverage and profitability affect financial distress. Meanwhile, institutional ownership, the size of the board of commissioners, the size of the board of directors, the size of the independent board of commissioners, the size of the audit committee and the size of the company do not affect financial distress.

Sopian & Rahayu (2017) examined the Effect of Financial Ratios and Company Size on Financial distress (Empirical Study on Food And Beverage Companies on the Indonesia Stock Exchange). Based on the results of multiple analyses with a significant level of 5%, the results show that liquidity, leverage, sales growth, and company size significantly affect financial distress. While partially, liquidity, leverage and firm size have no significant effect on financial distress.

Setiawan et al. (2017) examined the Effect of Profit, Cash Flow, Company Liquidity, Company Size, Leverage, Institutional Ownership and Managerial Ownership to Predict Financial Distress Conditions. This study aims to examine the effect of earnings, cash flow, firm liquidity, firm size, leverage, institutional ownership and managerial ownership to predict financial distress conditions in all companies except the banking industry.

Ngadi & Ekadjaja (2019) examines the Influence of Liquidity, Leverage, Firm Size, and Institutional Ownership on Financial Distress. The results of this study indicate that firm size and institutional ownership do not affect financial distress.

Chrissentia & Syarief (2018) examine the Effect of Profitability Ratios, Leverage, Liquidity, Firm Age, and Institutional Ownership on Financial Distress. The results of this study indicate that institutional ownership does not affect financial distress.

Abbas (2019) examines the Influence of Liquidity, Independent Commissioner, Institutional Ownership and Company

Size on Financial Distress. The results of this study showed that the variables of liquidity, independent commissioners and institutional ownership did not affect financial distress and the firm size variable had a positive effect on financial distress.

Kurniasanti (2018) examines the Effect of Corporate Governance, Financial Ratios, Company Size and Macroeconomics on Financial Distress. The results of this study indicate that there is no effect of firm size on financial distress.

## Framework

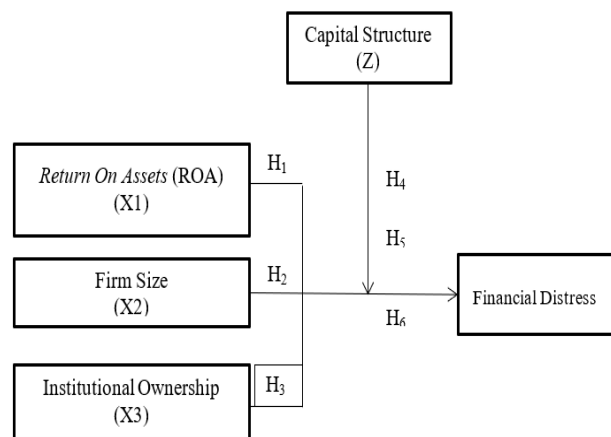


Figure 1. Framework

H1: ROA has a significant effect on financial distress.

H2: Firm size has a significant effect on financial distress.

H3: Institutional ownership has a significant effect on financial distress.

H4: Capital structure moderates the effect of ROA on Financial distress.

H5: Capital structure moderates the effect of firm size on financial distress.

H6: Capital structure moderates the effect of institutional ownership on financial distress.

## MATERIALS & METHODS

The research design in this study is causal associative, namely research that aims to determine the causal relationship between various variables (Sugiyono, 2016). This study uses independent variables, namely

the Return on Assets (X1), Firm Size (X2), and Institutional Ownership (X3). Financial distress is the dependent variable (Y) and a moderating variable, Capital Structure (Z).

The population is the totality of a specific characteristic determined by the author to be studied and concluded (Sugiyono, 2016). At the same time, the sample is part of the population that is used to estimate the characteristics of the population (Sugiyono, 2019). The population in this study are manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2016-2020 financial year. The number of manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2016-2020 financial year is 193.

Determination of the sample in this study was carried out using a purposive sampling technique. The purposive sampling technique is a sampling technique with specific considerations (Sugiyono, 2018). The criteria set in the sampling of this study are as follows:

1. The manufacturing company publishes an annual report for 2016-2020.
2. The manufacturing company publishes an annual report in rupiah currency for 2016-2020.
3. The manufacturing company experienced consecutive profits for 2016-2020.

Based on the criteria for selecting the research sample set above, the sample was obtained from as many as 420 companies (84 companies x 5 years of research).

Data analysis simplifies data into a form that is easy to read and interpret using SPSS program/software tools.

## RESULT

### A. Classic assumption test

#### 1. Normality test

Before testing the hypothesis, the normality test is carried out first. The purpose of the normality test is to determine whether the confounding or residual variables have a normal distribution in the regression model.

Testing the normality of the data was carried out using graphical and statistical analysis. In this study, the normality test of the residuals uses the Kolmogorov-Smirnov test. The significance level used. The basis for making decisions is to look at the probability numbers with the following conditions:

- a. If the probability value is 0.05, the normality assumption is met.
- b. If probability  $< 0.05$ , then the assumption of normality is not met

Table 2. Normality with Kolmogorov-Smirnov Test  
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		420
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	5.2154784
Most Extreme Differences	Absolute	.158
	Positive	.158
	Negative	-.125
Test Statistic		.158
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>

Source: data processed by SPSS, 2022

The table above shows the value of Asymp.Sig. (2-tailed) is  $0.200 > 0.05$ . It means that the value is above the significant value of 5% (0.05). Therefore, the Kolmogorov-Smirnov (K-S) test also states that the residual data are normally distributed.

#### 2. Multicollinearity Test

The multicollinearity test aims to test whether the regression model found a correlation between the independent variables (X). Multicollinearity means a strong relationship exists between several or all independent variables in the regression model. The variance inflation factors (VIF) and tolerance values are used to test the presence or absence of multicollinearity between independent variables. If the tolerance value is  $< 0.10$  or the VIF value is  $> 10$ , multicollinearity occurs. If tolerance  $> 0.10$  or VIF value  $< 10$  then multicollinearity is rejected.

**Table 3. Multicollinearity Test with VIF**  
Coefficients\*

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	X1	.721	2.784
	X2	.876	2.652
	X3	.815	2.784

Source: data processed by SPSS, 2022

The table above shows that the tolerance value for all variables is above 0.1, and the VIF value is below 10. So it can be concluded that there is no correlation between the independent variables used or there are no problems in the multicollinearity test.

### 3. Autocorrelation Test

The autocorrelation test aims to test whether there is a correlation in the linear regression model between the confounding error in period t and the confounding error in period t-1 (previous). The Durbin-Watson test does an detection of autocorrelation assumption. The test criteria are:

1. If  $d\text{-count} < dL$  or  $d\text{-count} > (4dL)$ . then there is autocorrelation.
2. If  $dU > d\text{-count} < (4-dU)$ . then there is no autocorrelation.
3. If  $dL < d\text{-count} < dU$  or  $(4-dU) < d\text{-count} < (4-dL)$ . then it cannot be concluded whether there is autocorrelation.

**Table 4. Autocorrelation Test Result**  
Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.907 <sup>a</sup>	.894	.857	3.54587	2.317

a. Predictors: (Constant), Institutional Ownership, Return On Assets, Firm Size  
b. Dependent Variable: Financial Distress

Source: data processed by SPSS, 2022

The table above shows that the Durbin Watson value obtained is 2,317. To determine the presence or absence of autocorrelation can be done with the Durbin Watson test. Namely by comparing the DW value from the regression results with the dL and dU values from the Durbin Watson table. The table value of the lower limit (dL)

of Durbin Waston on the number of observations is 567, with the number of independent variables three being 1,800 and the upper limit (dU) being 1,919. Thus, it can be concluded that the value of  $du < DW < 4$  or  $1 < 1.919 < 2.317$ . It indicates no positive or negative autocorrelation in the regression model used.

### 4. Heteroscedasticity Test

Heteroscedasticity is a situation where there is an inequality of variance in the regression model from the residual of one observation to another. A good regression model is one with homoscedasticity or no heteroscedasticity. The way to detect the presence or absence of heteroscedasticity is by looking at the Scatterplot Graph. Heteroscedasticity occurs if there is a certain pattern, such as the dots that form a certain regular pattern (wavy, widened then narrowed). There is no heteroscedasticity if there is no clear pattern and the points spread above and below the number 0 on the Y axis.

**Table 5. Heteroscedasticity Test**



Source: data processed by SPSS, 2022

The image above shows no such clear pattern, and the points spread above and below the number 0 on the Y axis. There is no heteroscedasticity.

### B. Hypothesis Testing

#### 1. Coefficient of Determination Test

The results of the coefficient of determination test can be seen in the following table:



**Table 6. Coefficient of Determination Test Results Model Summary<sup>a</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.907 <sup>a</sup>	.894	.857	3.54587

a. Predictors: (Constant), Institutional Ownership, ROA, Firm Size  
 j. Dependent Variable: Financial Distress

Source: data processed by SPSS, 2022

The table above shows the coefficient of determination. The value of Adj R-Square is 0.857. It means that 85.7% of the dependent variable of financial distress can be explained by the independent variable, namely profitability, firm size, and institutional ownership. The remaining 14.3% is explained by other variables not included in this research model.

## 2. Simultaneous Hypothesis Test Results (Statistical Test F)

The F statistical test was used to determine the effect of the independent variables simultaneously (simultaneously) on the dependent variable. If the value of  $F_{count} > F_{table}$  or  $sig < = 5\%$ . then H1 is accepted. On the other hand, if the value of  $F_{count} < F_{table}$  or  $sig > = 0.05$ . then H1 cannot be accepted.

**Table 7. Simultaneous Hypothesis Testing Result ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	162.839	3	77.874	44.110	.000 <sup>b</sup>
	Residual	3070.152	417	5.682		
	Total	3232.991	417			

a. Predictors: (Constant) (Constant), Institutional Ownership, ROA, Firm Size  
 b. Dependent Variable: Financial Distress

Source: data processed by SPSS, 2022

The table above shows that the value of  $F_{count}$  is greater than  $F_{table}$  ( $44.110 > 3.01$ ). It shows that the independent variable (X) affects the dependent variable (Y), and the significant value obtained is 0.000, which is smaller than 0.05. shows that the independent variable (X) significantly affects the dependent variable (Y). So it can be concluded that the variables of Institutional Ownership, ROA, and Firm Size simultaneously significantly affect financial distress.

## 3. Results of Partial Hypothesis Testing (Test Statistical t)

The t-statistical test shows how far the influence of each independent variable is partially on the dependent variable. Decision criteria for statistical test t. if  $t_{count} > t_{table}$  or  $sig < = 5\%$ . Then H1 is accepted or if  $t_{count} < t_{table}$  or  $sig > = 5\%$ . Then H1 cannot be accepted.

**Table 8. Statistical Test Results T Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.658	5.554		9.596	.000
	X1	.200	.121	.054	4.346	.032
	X2	.681	.411	.287	3.557	.011
	X3	-.147	-.380	-.451	1.212	.062

a. Dependent Variable: VAR00004

Source: data processed by SPSS, 2022

The test results show the regression equation for financial distress as the dependent variable that can be formed is:  
 $Y = 13.658 + 0.200X1 + 0.681X2 - 0.161X3 + e$

The table above shows that ROA and company size partially positively and significantly affect financial distress. At the same time, institutional ownership has a negative and insignificant effect on financial distress.

## 4. Test Moderated Regression Analysis

Moderated Regression Analysis (MRA) test was conducted to see whether the moderating variable could strengthen or weaken the influence of the independent variable on the dependent variable.

**Table 9. MRA Test Results and Residual Test Results (Moderating)**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.177	.267		4.415	.000
	X1	-.005	.004	-.163	-1.337	.182
	X2	-.005	.009	-.034	-.493	.622
	X3	-.084	.064	-.087	-1.320	.188
	Z	.351	2.480	.189	.142	.888
	X1*Z	-.001	.055	-.004	-.017	.986
	X2*Z	-.010	.084	-.165	-.121	.903
	X3*Z	-.123	.527	-.043	-.233	.816

Source: data processed by SPSS, 2022

The table above shows the equation of the MRA Test Results:

$$Y=1.77-0.005X1 -0.05X2-0.084X3 + 0.351Z-0.001X1*Z-0.010X2*Z-0.123X3*Z$$

In testing moderation with the MRA test approach, a variable is said to be moderating if its significant value is less than 0.05 (Ghozali, 2013). It can be seen from the results of the MRA test that all independent variables that have been multiplied by the moderating variable have a significant value greater than 0.05. It means that the model structure variable does not moderate the relationship between the independent and dependent variables.

## CONCLUSION

The results of this study provide several conclusions that can be drawn based on the discussion of the problems that have been carried out. The following are the conclusions that the author has summarized in this study:

1. The Return on Assets variable positively and significantly affects financial distress.
2. Firm size variable positively and significantly affects financial distress.
3. The institutional ownership variable has a negative and insignificant effect on financial distress.
4. The capital structure variable cannot moderate the relationship between Return On Assets and financial distress.
5. The capital structure variable cannot moderate the relationship between firm size and financial distress.
6. The capital structure variable cannot moderate the relationship between institutional ownership and financial distress.

## SUGGESTION

Based on the conclusions of this study, suggestions can be given which are as follows:

1. For future researchers who examine

financial distress, use other models to measure financial distress, such as the de Angelo, Dechow and Dichev, or Stubben models.

2. The independent variable used can only explain 31.7% of its effect on the financial distress of manufacturing companies listed on the IDX for the 2016-2020 period. So there may be many other variables that may affect financial distress. This research is limited to manufacturing companies listed on the Indonesia Stock Exchange for the 2016-2020 period. Thus not reflecting the overall development in the industry.
3. For further researchers interested in researching financial distress, it is suggested to add research variables. Such as adding a variable net profit margin, bonus compensation, stock value, and stock price changes.

**Conflict of Interest:** None

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