

# THE EFFECT OF INSTITUTIONAL OWNERSHIP, MANAGERIAL OWNERSHIP, LIQUIDITY, AND LEVERAGE ON FINANCIAL DISTRESS

## ABSTRACT

**Aims:** This study aims to find empirical evidence and analyze the effect of institutional ownership, managerial ownership, liquidity, and leverage on financial distress. In addition, this research can also be used as a reference for further researchers as well as a reference for stakeholders (investors, creditors, and the government) in making relevant and reliable decisions.

**Study design:** The method used is quantitative research with secondary data taken from the company's financial statements with data collection techniques using purposive sampling. **Place and duration of study:** The population in this study are manufacturing companies in the consumer goods industry sector listed on the Indonesia Stock Exchange during 2018-2020. The number of research samples is 63 data.

**Methodology:** Analysis of the data used is multiple linear regression analysis.

**Result:** The results of this study indicate that: (1) Institutional Ownership has no significant effect on Financial Distress. (2) Managerial Ownership has no significant effect on Financial Distress. (3) Liquidity has a positive and significant effect on Financial Distress. (4) Leverage has a negative and significant effect on Financial Distress.

*Keywords: ownership structure, liquidity, leverage, financial distress*

## 1. INTRODUCTION

At the beginning of 2020, almost all countries were facing a COVID-19 virus pandemic. The virus has changed the economic system in every country. Many companies are experiencing financial difficulties (financial distress) and even bankruptcy. This is due to the decline in people's purchasing power and the company's inability to maintain its financial performance. Financial distress is a condition where the company's finances are in an unhealthy state or are experiencing a financial crisis. Financial distress has a close relationship with bankruptcy in a company. Because at that time the company experienced a financial decline before the company went bankrupt. The occurrence of financial distress is due to the large number of companies experiencing liquidity (Yustika, 2015).

In the early stages, companies that are in financial distress usually tend to have a declining ability to fulfill their obligations. Ratna & Marwati (2018) state that the decline in sales volume, the decreased ability of the company to generate profits, and dependence on debt are used as signs that the company is in financial distress. Negative net income is a measuring tool for financial distress, because negative profits describe the company is in a state of financial distress (financial distress) which has an impact on its business continuity (Zhafirah & Majidah, 2019).

The phenomenon of financial distress occurs in several companies in Indonesia. This is indicated by the continued decline in profits generated by the company. One of them is PT Astra International Tbk. PT. Astra International Tbk is a company engaged in the automotive sector with many subsidiaries. This company is one of the companies that has been negatively impacted by the COVID-19 pandemic. Almost all the business activities of its subsidiaries have decreased so that it makes a profit from PT. Astra International Tbk fell by 8 percent in the first quarter. In 2019 the income earned by this company was Rp. 237 trillion with a net profit of Rp. 21.7 trillion. Profit in 2019 was greater when compared to 2018 which was only Rp.21.67 trillion. However, during this pandemic, PT. Astra International Tbk only earned a net profit of Rp4.81 trillion in the first quarter. This number decreased when compared to the profit in the first quarter of the previous year, in 2019 the company was able to achieve a profit of Rp5.21 trillion (<https://www.cnbcindonesia.com> ).

There are several factors that affect financial distress, including institutional ownership, managerial ownership, liquidity, and leverage. Institutional ownership is share ownership owned by investors of a

company including investment companies, banks, insurance companies, and pension funds that can maximize supervision of the company's financial performance (Haryono, et al., 2017). Research Purba & Muslih (2018), Helena & Saifi (2018) and Sujana, et al. (2017) stated that institutional ownership has an effect on financial distress. However, the results of this study are different from Septiani & Dana (2019) and Dirman (2020) which state that institutional ownership has no effect on financial distress.

Managerial ownership is management's share ownership, including directors and commissioners who are active in making company decisions (Loman & Malelak, 2015). Research by Hanafi & Breliastiti (2016) and Syofyan & Herawaty (2019) states that managerial ownership has an effect on financial distress. However, the results of this study are different from Masita & Purwahandoko (2020), Dirman (2020) and Dewi, Wahyuni & Umam (2020) which state that managerial ownership has no effect on financial distress.

Liquidity is a ratio used to measure a company's ability to meet its short-term obligations in a timely manner (Irham, 2014:121). The liquidity ratio in this study is measured by the current ratio. The current ratio is the ratio that divides the number of current assets with the company's current debt (Widhiari & Merkusiwati, 2015). Research by Yudiawati & Indriani (2016), Pulungan (2017) and Septiani & Dana (2019) states that liquidity has an effect on financial distress. However, the results of this study differ from Dirman (2020) and Masita and Purwahandoko (2020) which state that liquidity has no effect on financial distress.

Leverage is a ratio that measures how much the company is financed with debt (Irham, 2015: 127). The leverage ratio in this study was measured by the Debt to Equity Ratio (DER). Research by Simanjuntak (2017), Harianti (2018) and Septiani & Dana (2019) states that leverage has an effect on financial distress. However, it is different from the results of research by Bernardin & Tifani (2019), Tutliha & Rahayu and Dirman (2020) which state that leverage has no effect on financial distress.

## **2. LITERATURE REVIEW**

### **2.1 Agency Theory**

According to Jensen and Meckling (1976), agency theory is the basic thing that companies use to understand financial distress. Agency theory concerns the contractual relationship between company members to avoid inappropriate relationships, a concept is needed that aims to make the company healthier. The basis that underlies the emergence of agency theory is that individuals act for their own interests so that sometimes they ignore the interests of the company. Agency problems occur when organizational members have different goals and there is a division of labor (Mujiani & Jum'atul, 2020). In agency theory, an information asymmetry will appear between management and investors because there is an unequal desire between the two who seek to achieve their respective goals. With the agency theory, it is hoped that the desires between management and investors will be aligned so that agency costs can be lowered so that financial distress can be avoided (Setiyawan & Musdholifah, 2020).

### **2.2 Signaling Theory**

According to Lo (2012) signaling theory is explained as giving a signal to the market regarding the company's financial condition. Spence (1973) explains that the signal is sent to external parties because the company has a fairly good financial performance. Companies that send bad signals to external parties incur higher costs than companies that send good signals (Putri & Kristanti, 2020).

Signal theory provides information to external parties about the future condition of the company (Scott, 2014: 305). The information provided by the company can be in the form of good news such as good company conditions, profit announcements, dividend distribution and bad news information can be in the form of company losses so that they cannot distribute dividends, or too much company debt that increases the risk of bankruptcy (Dirman, 2020).

## **3. RESEARCH METHOD**

### 3.1 Definition and Operationalization of Variables

#### 3.1.1 Dependent variable

The dependent variable used in this study is Financial distress. According to Priyatnasari & Hartono (2019), financial distress is a situation where a company faces difficult finances until it eventually leads to liquidation or bankruptcy. There are many models that have been developed to predict financial distress as an effort to avoid bankruptcy. One of the methods in question is the Altman discrimination analysis method. This study uses the Altman Z-Score model for public manufacturing companies, such as Pernamasari, et al., (2019) and Dirman (2020). Where the shares of a company are publicly traded or listed on the stock exchange. The formula used is as follows:

$$Z = 1,2 (X1) -1,4 (X2) + 3,3 (X3) + 0,6 (X4) + 1,0 (X5)$$

Where:

Z = Bankruptcy Index

X1 = Working Capital/Total Assets

X2 = Retained Earnings/Total Assets

X3 = Profit Before Interest and Tax/Total Assets

X4 = Market Value of Equity/Book Value of Debt

X5 = Sales/Total Assets

Z > 2.99 : Safe Zone (non distress)

1.81 < Z < 2.99 : Gray Zone (grey area)

Z < 1.81 : Danger Zone (distress)

#### 3.1.2 Independent Variable

##### 3.1.2.1 Institutional Ownership

Institutional ownership is share ownership owned by investors of a company including investment companies, banks, insurance companies, and pension funds that can maximize supervision of the company's financial performance (Haryono, et al., 2017). Institutional ownership can be calculated by dividing the number of shares owned by the institution by the total outstanding shares.

##### 3.1.2.2 Managerial ownership

Managerial ownership is management's share ownership, including directors and commissioners who are active in making company decisions (Loman & Malelak, 2015). Managerial ownership can be calculated by dividing the number of shares owned by management by the total outstanding shares.

##### 3.1.2.3 Liquidity

Liquidity is a ratio used to measure a company's ability to meet its short-term obligations in a timely manner (Irham, 2014:121). The liquidity ratio in this study is measured by the current ratio. The current ratio is the ratio that divides the number of current assets with the company's current debt (Widhiari & Merkusiwati, 2015).

##### 3.1.2.4 Leverage

Leverage is a ratio that measures how much the company is financed with debt (Irham, 2015: 127). The leverage ratio in this study was measured by the Debt to Equity Ratio (DER). Debt to Equity Ratio (DER) is a ratio used to measure how much the company's capital is funded by debt. This ratio is calculated by comparing the total debt with total equity.

#### 3.1.3 Population and Samples Research

The population in this study are manufacturing companies in the consumer listed on the IDX during 2018-2020. The sample in this study was determined by  $Z = 1,2 (X1) + 1,4 (X2) + 3,3 (X3)$

sampling method, namely sampling based on the following criteria: (1) manufacturing companies in the consumer goods industry sector that were still listed on the IDX during the period (2) manufacturing companies in the consumer goods industry sector that earned profits (3) manufacturing companies in the consumer goods industry sector whose financial reports are complete during the observation period.

### 3.1.4 Analysis Method

Multiple linear regression analysis, which is the analysis used to test the effect of two or more independent variables on the dependent variable with a ratio measuring scale in a linear equation. The equation model for testing the hypothesis in this study is as follows:

$$FD = \alpha + \beta_1 KI + \beta_2 KM + \beta_3 CR + \beta_4 DER + \epsilon$$

Information:

FD = Financial Distress  
 KI = Institutional Ownership  
 KM = Managerial Ownership  
 CR = Current Ratio (Liquidity)  
 DER = Debt to Equity Ratio (Leverage)  
 $\alpha$  = Constant  
 $\beta_1, \beta_2, \beta_3, \beta_4$  = Regression Coefficient  
 $\epsilon$  = Error Term

## 4. RESULT AND DISCUSSION

### 4.1 RESULT

#### 4.1.1 Descriptive Test

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Institutional Ownership (X1)	63	,0000	,8702	,367952	,3126944
Managerial Ownership (X2)	63	,0000	,6342	,119678	,2133852
Liquidity (X3)	63	,9426	7,0565	2,476205	1,4533949
Leverage (X4)	63	,0850	2,4158	,852060	,5500895
Financial Distress (Y)	63	1,5162	9,4654	4,401435	1,9921123
Valid N (listwise)	63				

Sources: SPSS 22

Based on the results of descriptive statistical tests in table 1, with a total of 63 data, the following information is obtained:

Institutional Ownership Variables have an average value of 36.80%. This shows that on average, manufacturing companies in the consumer goods industry sector listed on the Indonesia Stock Exchange in 2018-2020 are mostly owned by other investors (besides banks and financial institutions). The lowest institutional ownership value is 0% owned by PT Akasha Wira International Tbk, PT Darya-Varia Laboratoria Tbk, PT Merck Tbk, PT Pratama Abadi Nusa Industri Tbk and PT Merck Sharp Dohme Pharma Tbk while the highest value is 87.02% owned by PT Wilmar Cahaya Indonesia Tbk, with a standard deviation of 31.27%.

Managerial Ownership variable has an average value of 11.97%. This shows that on average, manufacturing companies in the consumer goods industry sector listed on the Indonesia Stock Exchange in 2018-2020 are mostly owned by other investors (other than management). The lowest Managerial Ownership value of 0% is owned by PT Akasha Wira International Tbk, PT Budi Starch & Sweetener Tbk, PT Darya-Varia Laboratoria Tbk, PT Merck Tbk, PT Nippon Indosari Corpindo Tbk,

PT Merck Sharp Dohme Pharma Tbk and PT Tempo Scan Pacific Tbk while the highest score of 63.42% is owned by PT Pratama Abadi Nusa Industri Tbk, with a standard deviation of 21.34%.

Liquidity variable (measured by current ratio (CR)) has an average value of 247.62%. This shows that on average, manufacturing companies in the consumer goods industry sector listed on the Indonesia Stock Exchange in 2018-2020 have a great ability to meet their short-term financial obligations, which means that the company has a number of current assets that are ready to pay off its short-term debt. The lowest liquidity value is PT Pharos Tbk, which is 94.26%, while the highest value is 705.65%, owned by PT Pratama Abadi Nusa Industri Tbk, with a standard deviation of 145.34%.

Leverage variable (measured by debt to equity ratio (DER)) has an average value of 85.21%. This shows that on average, manufacturing companies in the consumer goods industry sector listed on the Indonesia Stock Exchange in 2018-2020 in using debt to finance companies are relatively small, which means that companies use more internal funds to finance the company's operational activities. The lowest leverage value of 8.5% is owned by PT Pratama Abadi Nusa Industri Tbk while the highest value of 241.58% is owned by PT Tunas Baru Lampung Tbk, with a standard deviation of 55%.

Financial Distress variable has an average value of 4.40 (or > 2.99). This shows that on average, manufacturing companies in the consumer goods industry sector listed on the BEI are in the safe zone (non distress), which means that the company does not experience financial difficulties. The lowest value of Financial Distress of 1.52 is owned by PT Budi Starch & Sweetener Tbk while the highest value of 9.47 is owned by PT Pratama Abadi Nusa Industri Tbk, with a standard deviation of 1.99.

#### 4.1.2 Classical Assumption Test

##### 4.1.2.1 Normality test

**Table 2. One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		63
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	1,49959095
	Most Extreme Differences	
	Absolute	,086
	Positive	,086
	Negative	-,086
Test Statistic		,086
Asymp. Sig. (2-tailed)		,200 <sup>c,d</sup>

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

Sources: SPSS 22

Based on table 2 it can be seen that the Asymp value. The Sig (2-tailed) is 0.200 or greater than 0.05, it can be concluded that the data in this study is normally distributed, which means that the regression model meets the assumption of normality.

##### 4.1.2.2 Multicollinearity Test

**Table 3. Multicollinearity Test**

Model	Collinearity Statistics
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	Tolerance	VIF
1 (Constant)		
Institutional Ownership (X1)	,924	1,082
Managerial Ownership (X2)	,811	1,233
Liquidity (X3)	,668	1,498
Leverage (X4)	,750	1,333

a. Dependent Variable: Financial Distress (Y)  
Sources: SPSS 22

Based on table 3 there is no independent variable that has a tolerance value of less than 0.10 and a VIF value greater than 10. So, it can be concluded that in this study there is no multicollinearity between independent variables.

#### 4.1.2.3 Autocorrelation Test

**Table 4. Autocorrelation Test**

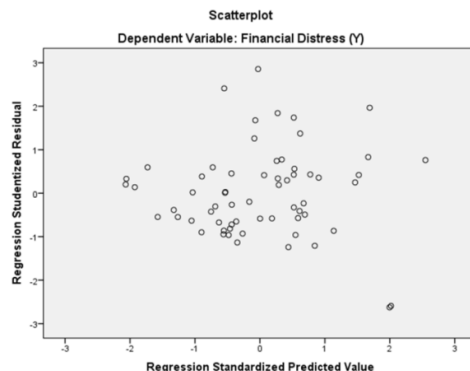
Model	R	R Square	Durbin-Watson
1	,658 <sup>a</sup>	,433	1,092

a. Predictors: (Constant), Leverage (X4), Kepemilikan Institusional (X1), Kepemilikan Manajerial (X2), Likuiditas (X3),  
b. Dependent Variable: Financial Distress (Y)  
Sources: SPSS 22

From table 4, the DW value is 1.092, where the value is between -2 to +2, it can be concluded that in this study there is no autocorrelation.

#### 4.1.2.4 Heteroscedasticity Test

**Figure 1. Heteroscedasticity Test**



From the scatterplot graph, it can be seen that the points spread randomly and are spread both above and below the zero on the Y axis. It can be concluded that in this research heteroscedasticity does not occur, so that the regression model is feasible to use.

#### 4.1.3 Determination Coefficient Test

**Table 5. Determination Coefficient Test**

Model	R	R Square	Adjusted R Square
1	,658 <sup>a</sup>	,433	,394

a. Predictors: (Constant), Leverage (X4), Institutional Ownership (X1), Managerial Ownership (X2), Liquidity (X3),

b. Dependent Variable: Financial Distress (Y)  
 Sources: SPSS 22

From table 5, it can be seen that the coefficient of determination or R Square is 0.433, meaning the influence of Institutional Ownership, Managerial Ownership, Liquidity (as measured by the current ratio (CR)), and Leverage (as measured by the debt to equity ratio ((DER)) on Financial Distress by 43.3%. While 56.7% explained or influenced by other variables that were not included in this research model.

#### 4.1.4 Hypothesis Test

##### 4.1.4.1 F Test

**Table 6. F Test**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	106,624	4	26,656	11,089	,000 <sup>b</sup>
Residual	139,424	58	2,404		
Total	246,048	62			

a. Dependent Variable: Financial Distress (Y)

b. Predictors: (Constant), Leverage (X4), Institutional Ownership (X1), Managerial Ownership (X2), Liquidity (X3)

Sources: SPSS 22

From the regression test in table 6, it is obtained that the calculated F is 11,089 and the significance value is 0.000, which is smaller than 0.05. This can be interpreted that Institutional Ownership, Managerial Ownership, Liquidity, and Leverage together have a significant effect on Financial Distress. So the model in this study is feasible to use.

##### 4.1.4.2 T Test

**Table 7. T Test**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	4,499	,732		6,149	,000
Institutional Ownership (X1)	,286	,655	,045	,437	,664
Managerial Ownership (X2)	,667	1,025	,071	,651	,518
Liquidity (X3)	,418	,166	,305	2,524	,014
Leverage (X4)	-1,548	,413	-,427	-3,746	,000

a. Dependent Variable: Financial Distress (Y)

Sources: SPSS 22

Based on the calculation above, obtained:

- (1) Institutional Ownership has no significant effect on Financial Distress.
- (2) Managerial Ownership has no significant effect on Financial Distress.
- (3) Liquidity has a positive and significant effect on Financial Distress.
- (4) Leverage has a negative and significant effect on Financial Distress.

#### 4.1.5 Multiple Linear Regression Analysis

**Table 8. Multiple Linear Regression Analysis**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		

1 (Constant)	4,499	,732		6,149	,000
Institutional Ownership (X1)	,286	,655	,045	,437	,664
Managerial Ownership (X2)	,667	1,025	,071	,651	,518
Liquidity (X3)	,418	,166	,305	2,524	,014
Leverage (X4)	-1,548	,413	-,427	-3,746	,000

a. Dependent Variable: Financial Distress (Y)

Sources: SPSS 22

Based on the table of the results of multiple linear regression tests, the regression equation is obtained as follows:

$$FD = 4,499 + 0,286 KI + 0,667 KM + 0,418 CR - 1,548 DER + \epsilon$$

## 4.2 DISCUSSION

### 4.2.1 The Effect of Institutional Ownership on Financial Distress

Based on the results of the t test, institutional ownership has a regression coefficient of 0.286 with a significance of 0.664 (or greater than 5%), it can be concluded that institutional ownership has no significant effect on Financial Distress. The results of this study support the research of Putri & Kristanti (2020) and Dirman (2020). This means that the size of the institutional ownership of a company does not affect the company experiencing financial distress. This is because the ownership of shares by large institutions is centralized and does not spread, thus causing the supervision by shareholders of management to decrease. Thus, the ability of shareholders to control management in managing the company is not enough, thus allowing management to make decisions according to their wishes. In addition, in practice shareholders do not carry out their role properly in terms of monitoring the actions of the management.

### 4.2.2 The Effect of Managerial Ownership on Financial Distress

Based on the results of the t test, Managerial Ownership has a regression coefficient of 0.667 with a significance of 0.518 (or greater than 5%), it can be concluded that Managerial Ownership has no significant effect on Financial Distress. The results of this study support the research of Masita & Purwahandoko (2020), Dirman (2020) and Dewi, Wahyuni & Umam (2020). This means that managerial ownership is not an appropriate predictor to measure the company's financial distress. Companies with high managerial ownership are not necessarily categorized as companies experiencing financial distress, as well as companies with lower managerial ownership are not necessarily categorized as companies that do not experience financial distress.

### 4.2.3 The Effect of Liquidity on Financial Distress

Based on the results of the t test, Liquidity (as measured by the current ratio (CR)) has a regression coefficient of 0.418 with a significance of 0.014 (or less than 5%), it can be concluded that Liquidity has a positive and significant effect on Financial Distress. The results of this study support the research of Yudiawati & Indriani (2016), Pulungan (2017) and Septiani & Dana (2019). This means that the higher the current ratio level of a company, the higher the possibility of the company experiencing financial distress. This is because the higher the current ratio, the greater the current assets that are not needed, so that they do not provide income and large amounts of funds will be collected in the form of trade receivables which may prove to be uncollectible. Uncollectible receivables or unsold inventory cannot be used by the company to pay debts. In addition, the high level of the current ratio indicates an excess of current assets which has an adverse effect on the company's profitability.

### 4.2.4 The Effect of Leverage on Financial Distress

Based on the results of the t test, Leverage (measured by debt to equity ratio (DER)) has a regression coefficient of -1.548 with a significance of 0.000 (or less than 5%), it can be concluded that Leverage has a negative and significant effect on Financial Distress. The results of this study support the research of Simanjuntak (2017), Harianti (2018) and Septiani & Dana (2019). This means that a high

debt to equity ratio does not always have a high probability of bankruptcy but can also be low. This is because companies that have high debt levels can fulfill their asset purchases and increase company profits.

## **5. CONCLUSIONS AND SUGGESTIONS**

### **5.1 Conclusions**

1) Institutional Ownership has no significant effect on Financial Distress. This means that the size of the institutional ownership of a company does not affect the company experiencing financial distress. This is because the ownership of shares by large institutions is centralized and does not spread, thus causing the supervision by shareholders of management to decrease. Thus, the ability of shareholders to control management in managing the company is not enough, thus allowing management to make decisions according to their wishes.

2) Managerial Ownership has no significant effect on Financial Distress. This means that managerial ownership is not an appropriate predictor to measure the company's financial distress. Companies with high managerial ownership are not necessarily categorized as companies experiencing financial distress, as well as companies with lower managerial ownership are not necessarily categorized as companies that do not experience financial distress.

3) Liquidity has a positive and significant effect on Financial Distress. This means that the higher the current ratio level of a company, the higher the possibility of the company experiencing financial distress. This is because the higher the current ratio, the greater the current assets that are not needed, so that they do not provide income and large amounts of funds will be collected in the form of trade receivables which may prove to be uncollectible. Uncollectible receivables or unsold inventory cannot be used by the company to pay debts.

4) Leverage has a negative and significant effect on Financial Distress. This means that a high debt to equity ratio does not always have a high probability of bankruptcy but can also be low. This is because companies that have high debt levels can fulfill their asset purchases and increase company profits.

### **5.2 Suggestions**

For further researchers, because the results of research on institutional ownership and managerial ownership show that there is no effect on financial distress on the sample that has been carried out, it is recommended to retest because it is not in accordance with applicable theory and can increase the number of research samples.

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