



# EFFECT OF PROFITABILITY, CAPITAL STRUCTURE, SHARE PRICES AND CASH FLOWS IN PREDICTING FINANCIAL DISTRESS CONDITIONS ON MANUFACTURING COMPANIES

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## Abstract

**Background :** The purpose of this study is to see the effect of profitability, capital structure, stock prices and cash flow in predicting the condition of financial difficulties in Manufacturing companies listed on the IDX in 2018-2020 both partially and simultaneously. Financial distress is a process in which companies experience financial difficulties, financial difficulties have a very close relationship with the risk of bankruptcy that occurs in the company so that the company is unable to fulfill its obligations. **Method :** The research method applies multiple linear regression analysis techniques. The results of the study are that profitability and capital structure partially affect financial difficulties in manufacturing companies listed on the IDX in 2018-2020. **Result :** Stock prices and cash flows partially have no effect on financial difficulties in manufacturing companies listed on the IDX in 2018-2020. **Conclusion :** Profitability, capital structure, stock prices and cash flow together affect the financial difficulties of manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020.

**Keywords:** Profitability, Capital Structure, Stock Price, Cash Flow, Financial Distress



**INTRODUCTION**

Financial distress is a process in which companies experience financial difficulties, financial difficulties have a very close relationship with the risk of bankruptcy that occurs in the company so that the company is unable to fulfill its obligations. The company will experience financial distress if the company's operating cash flow is not able to meet short-term obligations such as payment of loan interest that has matured[1][2][3]. The greater the obligations of the company, the greater the risk of financial distress. The simplest indication of a company experiencing financial distress is that the company is experiencing problems and circumstances where the company's financial condition shows an unhealthy condition, and the company will have difficulty paying off its obligations[4][5].

Code	Year	Stock Price	Total Loan	Prof	Cash Flow
AIS	2018	168	5.267.348.0	- 123.513.000	278.566.0
			00.000	.000	00.000
	2019	168	3.526.819.0	1.134.776.00	14.162.0
			00.000	0.000	00.000
BAJ	2020	390	1.183.300.0	1.204.972.00 -	58.485.00
			00.000	0.000	0.000
	2018	113	824.660.44	- 96.695.781.	10.125.7
			7.657	573	13.239
ATA	2019	62	762.683.58	1.112.	79.605.5
			0.285	983.74	39.441
				8	
	2020	116	632.586.39	55.118.5	213.280.0
ALTO	2020	400	722.716.84	- 33.021.220.	7.723.
			4.799	862	486.94
					3
	2019	398	722.719.56	- 7.383.289.2	33.552.2
			3.550	39	21.386

20	308	732.991.33	- 10.506.939.	30.788.4
20		4.916	189	06.788

Table I.1. Phenomena (Source: www.idx.co.id[6])

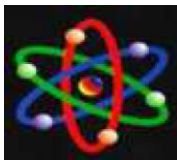
In table above it can be seen that financial stress occurred in the three companies above due to the company experiencing losses where the three total debts of the company increased[7][8][9][10].

Profitability is an indicator of a company's financial health that is needed to assess potential changes in economic resources that may be controlled in the future, so as to predict the company's capacity to generate cash and to formulate the effectiveness of mining companies in utilizing additional resources[11][12]. The financial condition and healthy development of mining companies reflecting efficiency in the company's financial performance, especially Return On Assets (ROA) are the main demands to be able to compete with other companies. Evolving technology and increasing specialization within enterprises, encourage companies to increase investment in fixed assets and capital work[13].

Capital structure is a composition between own capital and capital financed by third parties in the form of share ownership, retained earnings, and other types of capital. Manufacturing companies must have a strong capital structure because the economy of a country also depends on great support from the manufacturing sector if the country is hit by an economic crisis[8].

The stock price is a very important factor and must be considered by investors in investing because the stock price shows the performance of the issuer. The movement of stock prices is in line with the performance of the issuer, if the issuer has





better performance, the profits earned and generated from business operations will be greater. The results of research from Indrawan (2018) show that the stock price variable has no effect on financial distress[7].

**METHOD**

N	Minimum	Maximum	Mean	Standard Deviation
Profitabilitas	204,00	,92	,0860	,09746
Struktur Modal	204,00	5,44	,8086	,78139
Harga Saham	204 58,00	83625,00	4134,9706	9457,61827
Arus Kas	204 - 18538346000,00	37683000000	174478796466780111	3741,4160 2875,53500
Financial Distress	204 ,93	185,94	4,5373	12,90557
Valid N (listwise)	204			

Table 2. Original Source

Cash flow is cash flow information needed by creditors to determine the company's ability to pay its debts. Operating cash flow provides investors with an overview and information. If the operating cash flow is of small value, the possibility of investors to invest in the company is very small and this situation can cause the company to be in a state of financial distress[14]. A research motivation because it is a problem that can be investigated further. so that the authors

have an interest in conducting further research with the title: The Effect of Profitability, Capital Structure, Stock Prices and Cash Flows in Predicting Financial Distress Conditions in Manufacturing Companies Listed on the IDX in 2018-2020. The research method applies multiple linear regression analysis techniques. The results of the study are that profitability and capital structure partially affect financial difficulties in manufacturing companies listed on the IDX in 2018-2020.

**RESEARCH RESULTS AND DISCUSSION**

The following are descriptive statistics for the minimum, maximum, average and standard deviation answers, namely:

	Minimum	Maximum	Mean	Standard Deviation
Profitabilitas	,00	,92	,0860	,09746
Struktur Modal	,00	5,44	,8086	,78139
Harga Saham	58,00	83625,00	4134,9706	9457,61827
Arus Kas	- 185383460000,00	376830000	174478796374146678011128	,4160 75,53500
Financial Distress	,93	185,94	4,5373	12,90557
Valid N (listwise)				

Table 3. Descriptive Statistics Descriptive Statistics

Table 3. shows that the minimum value of the profitability variable (X1) is 0.00 and the maximum is 0.92. The mean value is





0.860 and the standard deviation is 0.09746. The minimum value of the capital structure variable (X2) is 0.00 and the maximum is 5.44. The mean value is 0.8086 and the standard deviation is 0.78189. The minimum value of the Stock Price (X3) variable is 58.00 and the maximum is 83.625.00, the mean value is 4134.9706 and the standard deviation is 9.457.61827. The minimum value of the cash flow variable (X4) is -1,853,834,642,000.00 and the maximum is 37,683,000,000,000.00. The mean value is 1,744,787,963,741,4160 and the standard deviation is 4,667,801,112,875,53500. The minimum value of the Financial Distress (Y) variable is 0.93 and the maximum is 185.94, the mean value is 4.5373 and the standard deviation is 12.90557.

There are 2 ways to test whether the residual gives a normal distribution or not, namely:

1. Test the chart.

The easiest way to understand residual normality is to observe the histogram graph that compares the observed data with a distribution close to the normal distribution. The results of the normality test observed in the histogram graph are:

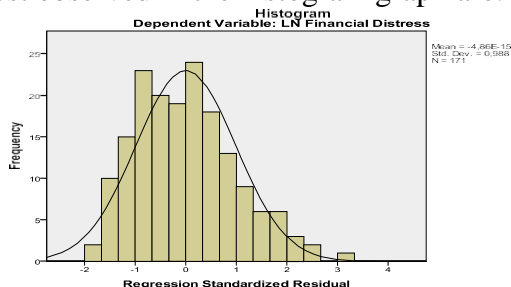


Figure 1. histogram

Source: Research Results, 2021 (Data Processed)

The figure proves that the histogram diagram shows a high beam based on the

curved line pattern creates mounds, thus the histogram diagram gives a normal distribution of the data.

The results of the Normal P-P Plot graph are:

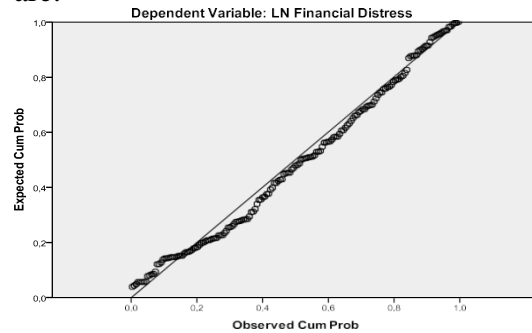


Figure.2. Normal P-P Plot  
Source: Research Results, 2021 (Data Processed)

The figure proves that the distribution of the points around the diagonal line and its distribution is close to the diagonal line so that it can be concluded that the distribution is normal.

The statistical normality test can use the K-S non-parametric statistical test, the criteria for testing are:

1. if sig < 0.05, then the data does not give a normal distribution
2. if sig > 0.05, then the data gives a normal distribution

The results of the normality test using the Kolmogorov-Smirnov model are:



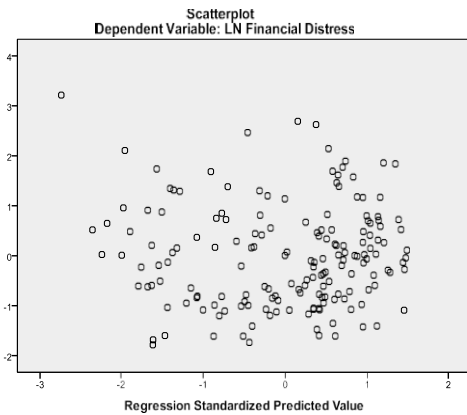


Figure 3. Scatter Plot

		Unstandardized Residual
N		171
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	,27885723
Most Extreme Differences	Absolute	,074
	Positive	,074
	Negative	-,042
Kolmogorov-Smirnov Z		,968
Asymp. Sig. (2-tailed)		,305

Table 4. Normality Test Results  
 Source: Research Results, 2021 (Data Processed)

Table 4 shows the results of the normalization test stating that the significant value is 0.305. This means that it has a normal distribution, because

Model		Collinearity Statistics	
		Tolerance	VIF
1	LN Profitabilitas	,687	1,456
	Struktur Modal	,821	1,218
	LN Harga Saham	,584	1,712
	LN Arus Kas	,591	1,693

statistically sig > 0.05.

**Multicollinearity Test**

This test can be known t from the number of tolerance and VIF. If a low tolerance score = a high VIF score (because VIF = 1/tolerance) is used to prove the occurrence of multicollinearity,

namely a tolerance score > 0.10 or the same as a VIF score < 10. The results of this test on the independent variables in this study are:

Table 5. Multicollinearity Test Results  
 Source: Research Results, 2021 (Data Processed)

Table above states that the results of this multicollinearity test show that the profitability value is 0.687 > 0.1 or 1.456 < 10. The value for the capital structure is 0.821 > 0.1 or 1.218 < 10. The value for the stock price is 0.584 > 0.1 or 1.712 < 10. The value for cash flow is 0.591 > 0.1 or 1.693 < 10. The conclusion of the multicollinearity test is that all independent variables do not occur in the multicollinearity test.

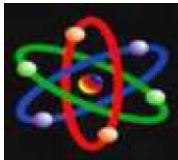
**Heteroscedasticity Test**

This test is carried out to see the difference in residual variance from one observation period to another observation period. There are various ways to determine whether there is heteroscedasticity. A scatterplot image to examine whether there is heteroscedasticity or homoscedasticity occurs by looking at the spread of dots.

Whether or not heteroscedasticity occurs can be observed from the probability of its significance, if the significance number is more than the 5% confidence level, it can be concluded that there is no heteroscedasticity. The results of heteroscedasticity testing with the glejser method are:

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
1	,269	,226	1,18	,2369
	(Const			





ant)				
LN Profitabilitas	-,028	,019	-,132	- ,153 1,43 5
Struktur Modal	,027	,029	,078	,925,356
LN Harga Saham	,003	,012	,025	,255,799
LN Arus Kas	-,006	,009	-,067	- ,503 ,671

Table 6. Results of the Glejser Method  
 Source: Research Results, 2021 (Data Processed)

Table 6 Explains that the score of the glejser test with a profitability significance number with a significant value at 0.153. The value of the capital structure glejser test with a significant value is 0.356. The value of the stock price glejser test with a significant value at 0.799. The value of the stock flow glejser test with a significant value is 0.503. This does not occur heteroscedasticity in the regression model so that the regression model is feasible to use in this study, because of the statistical significance of profitability, capital structure, stock price and cash flow > 0.05. Multiple linear regression analysis of the effect of profitability, capital structure, stock prices and cash flow in predicting financial distress conditions in manufacturing companies listed on the IDX in 2018-2020 are:

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	B	Std. Error		
1 (Const)	3,182	,538			5,913	,000
LN Profitabilitas	,182	,034	,363		5,409	,000
Struktur Modal	-,298	,048	-,375		- 6,18	,000

Modal				
LN Harga Saham	-,051	,033	-,122	- ,121 1,55 5
LN Arus Kas	-,033	,023	-,108	- ,147 1,45 5

Table 7. Results of Multiple Linear Regression Analysis

Source: Research Results, 2021 (Processed Data)

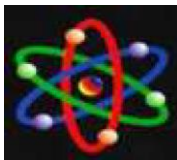
From this data, the regression equation for the effect of profitability, capital structure, stock prices and cash flow in predicting financial distress conditions in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020 are:  
**Y = 3.182 + 0.182 Profitability – 0.298 Capital Structure – 0.051 Stock Price - 0.033 Cash Flow**

The coefficients in the multiple linear regression equation are:

- Constant value (a) of 3.182 units means that profitability, capital structure, stock prices and cash flows are considered constant, so the financial distress condition of manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020 is 3.182 units.
- The profitability variable regression coefficient (b1) is 0.182 units. This proves that an increase in one unit of profitability will cause an increase in financial distress conditions in manufacturing companies listed on the IDX in 2018-2020 by 0.182 units.
- The regression coefficient of the capital structure variable (b2) is -0.298 units. This proves that an increase in one unit of capital structure will cause a decrease in one unit of financial distress in manufacturing companies listed on the IDX in 2018-2020 by 0.298 units.







Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,558 <sup>a</sup>	,32981		,52107

d. The stock price variable regression coefficient (b3) is -0.051 units. This proves that an increase in one unit of share price will cause a decrease in financial distress conditions in manufacturing companies listed on the IDX in 2018-2020 by 0.051 units.

e. The cash flow variable regression coefficient (b4) is 0.033 units. This proves that an increase in one unit of share price will cause a decrease in financial distress conditions in manufacturing companies listed on the IDX in 2018-2020 by 0.033 units.

Table 8. Hypothesis Determination Coefficient Results

Source: Research Results, 2021 (Data Processed)

The table proves that the result of the coefficient of determination test is that the adjusted R Square is 0.298, so the influence of profitability, capital structure, stock price and cash flow in predicting The condition of financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020 is 29.80% while the remaining 70.20% is influenced by other factors not examined in this study such as liquidity.

**Simultaneous Hypothesis Testing (F-test)**

The results of this test are:

Model	Sum of Squares	Mean Square	F	Sig.

1	Regression	24,434	6,108	22,498	,000 <sup>a</sup>
	Residual	54,031	,272		
	Total	78,464			

Table 9. Results of Simultaneous Hypothesis Testing  
 Source: Research Results, 2021 (Data Processed)

In table above it can be understood that the value of Fcount is 22,498 with a significance level of 0.000. While Ftable at the 95% confidence level ( $\alpha = 0.05$ ) is 2.42, because Fcount > Ftable or 22.498 > 2.42 with a significance of 0.000 < 0.05. This proves that profitability, capital structure, stock prices and cash flows together affect financial distress conditions in manufacturing companies listed on the IDX in 2018-2020.

**Partial Hypothesis Testing (t-test)**

The results of this test are in table above namely:

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
1 (Constant)	3,182	,538		5,913	,000
LN Profitabilitas	,182	,034	,363	5,409	,000
Struktur Modal	-,298	,048	-,375	-6,186	,000
LN Harga Saham	-,051	,033	-,122	-1,555	,121
LN Arus Kas	-,033	,023	-,108	-1,455	,147





Table 10. Results of Partial Hypothesis Testing

Source: Research Results, 2021 (Data Processed)

Table above proves that the independent variables have a partial influence on the dependent variable, namely:

- a. Profitability variable with a significant value of  $0.000 < 0.05$  or a value of  $5.409 > 1.97190$  then profitability, partially affects financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020.
- b. The capital structure variable with a significant value of  $0.000 < 0.05$  or a value of  $-6.186 > 1.97190$  means that the capital structure partially affects financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020.
- c. The stock price variable with a value of  $0.121 > 0.05$  or a value of  $-1.555 < 1.97190$  then the stock price partially has no effect on financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020.
- d. The cash flow variable with a significant value of  $0.147 > 0.05$  or  $-1.455 < 1.97190$  means that cash flow partially has no effect on financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020.

The results of this study prove that profitability, partially affects financial distress in manufacturing companies listed on the IDX in 2018-2020. This can be seen from a significant value of  $0.000 < 0.05$  or a value of  $5.409 > 1.97190$ .

The results of this study are in line with Hery's theory (2016: 192) which states that profitability is a ratio used to measure the

company's ability to generate profits from its normal business activities.

The results of this study are in line with the research of Carolina, et al (2017) which states that the profitability variable has an effect on financial distress. The results of this study are in line with Andre's research. et al (2014) stated that the profitability variable has an effect on financial distress. The results of this study are in line with the research of Harto and Lilis (2020) states that profit has an effect on financial distress. The conclusion of this study is profitability, partially affects

financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020. The results of this study prove that the capital structure partially affects financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020. This can be seen from a significant value of  $0.000 < 0.05$  or a value of  $-6.186 > 1.97190$ . The results of this study are in line with Fahmi's theory (2018: 72) which states that the capital structure is a picture of the proportion between the capital owned by a company that comes from long-term debt and own capital which is a method of permanent financing of a company. The results of this study are in line with the research of Raflis and Enny (2019) which states that capital structure has an effect on Financial Distress. The results of this study are in line with research by Shandi (2013) which states that the capital structure variable has an effect on Financial Distress. The results of this study are in line with the research by faira (2019) which states that capital structure has a significant positive effect on Financial Distress.

The conclusion of this study is that the capital structure partially affects financial







distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020.

The results of this study prove that stock prices partially have no effect on financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020. This can be seen from the value  $0.121 > 0.05$  or the value  $-1.555 < 1.97190$ . The results of this study are in line with the theory of Sartono (2012:141) which states that the stock price is equal to the present value or the present value of the cash flow that is expected to be received. The stock price formula is the closing stock price.

The results of this study are in line with Indrawan's research (2018) which states that the stock price variable has no effect on financial distress. The results of this study are in line with the research of Ramadhan, et al (2017) which states that the stock price variable has no effect on financial distress. The conclusion of this study is that stock prices partially have no effect on financial distress in manufacturing companies listed on the IDX in 2018-2020. This is because high and low stock prices are influenced by the considerations of buyers and sellers who make transactions. These considerations include the condition of the company's performance (bankrupt or healthy), industry prospects, political situation, government policies, and current market conditions. The results of this study prove that cash flow partially has no effect on financial distress in manufacturing companies listed on the IDX in 2018-2020. This can be seen from the significant value  $0.147 > 0.05$  or  $-1.455 < 1.97190$ . The results of this study are not in line with the theory of Rusdianto (2012: 194) which

states that cash flow is an activity of receiving and disbursing company cash during a certain period, along with an explanation of the sources of cash receipts and disbursements. The results of this study are in line with research by Caroline, et al. (2017) which states that the cash flow variable has no effect on financial distress. The results of this study are not in line with the research of Harto and Lilis (2020) which states that the cash flow variable has an effect on financial distress. The results of this study are not in line with the research of Syuhada, et al (2020) which states that the cash flow variable has a negative and significant effect on financial distress.

The conclusion of this study is that cash flow partially has no effect on financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020. This is because The net cash earned by the company is high, but this condition has not shown a definite picture of the company's ability to pay debts to third parties, so it cannot predict whether the company is in financial distress or not.

## CONCLUSION

Profitability, partially affects financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020. This can be seen from a significant value of  $0.000 < 0.05$  or a value of  $5.409 > 1.97190$ . The capital structure partially affects financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020. This can be seen from a significant value of  $0.000 < 0.05$  or a value of  $-6.186 > 1.97190$ . Stock prices partially have no effect on financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020.





This can be seen from the value  $0.121 > 0.05$  or the value  $-1.555 < 1.97190$   
Cash flow partially has no effect on financial distress in manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020. This can be seen from the significant value  $0.147 > 0.05$  or  $-1.455 < 1.97190$ .

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