DOES FINANCIAL DISTRESS HAVE AN IMPACT ON STOCK PRICE?

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Abstract

This study aims to determine the effect of Financial Distress using the Altman Z-Score forming variables; WCTA, RETA, EBITTA, MVEBVL and STA on Stock Price and to determine the effect of WCTA, RETA, EBITTA, MVEBVL, STA on Stock Price. This research was conducted using quantitative methods. The population of this study amounted to 17 companies in the Metal Sub-Sector Manufacturing Company listed on the Indonesia Stock Exchange for the 2016-2020 period and a sample of 11 companies was taken using purposive sampling method. The data analysis method uses Altman Z-Score and multiple linear regression analysis and is processed with SPSS version 25. Based on the results of the analysis, it can be concluded that the variables RETA, EBITTA, STA have no effect on Stock Price and the variables WCTA, and MVEBVL affect Stock Price. And together the Altman Z-Score variables affect the Stock Price.

Keywords: Altman Z-Score, WCTA, RETA, EBITTA, MVEBVL, STA and Stock Price.

INTRODUCTION

　　Companies, in addition to aiming to make a profit, must have hopes far into the future so that the company's activities can last for a long time and avoid experiencing financial difficulties (Financial Distress). A company is classified as financially distressed, if it cannot fulfill its obligations on time, even though total assets are greater than total liabilities. Therefore, companies can use several theoretical methods and financial analysis modeling tools to predict and estimate potential financial distress.

　　Financial difficulties in the manufacturing industry, especially companies, can occur due to declining profits, raw materials for processing activities are difficult to obtain or scarce, and customers are decreasing. In the global era, increasingly fierce competition in industries such as the metal industry forces companies to work harder to maintain their business continuity through various strategies aimed at retaining consumers as their main source of income.

With several existing problems, the company's operational activities in a certain period of time have an impact on the decline in share value, including reduced profits, reduced dividends, and a decrease in the price of shares of listed companies. The share price is a reflection of the company's value from the eyes of the general public, especially investors. The optimal share price that investors are interested in and good company value can be reflected in the results of the company's good performance in carrying out its activities, and vice versa. Factors that affect stock prices are demand and supply. If there is demand then the share price goes up, and if there is no demand then the share price automatically decreases. Here are the share prices of metal sub-sector companies**.**
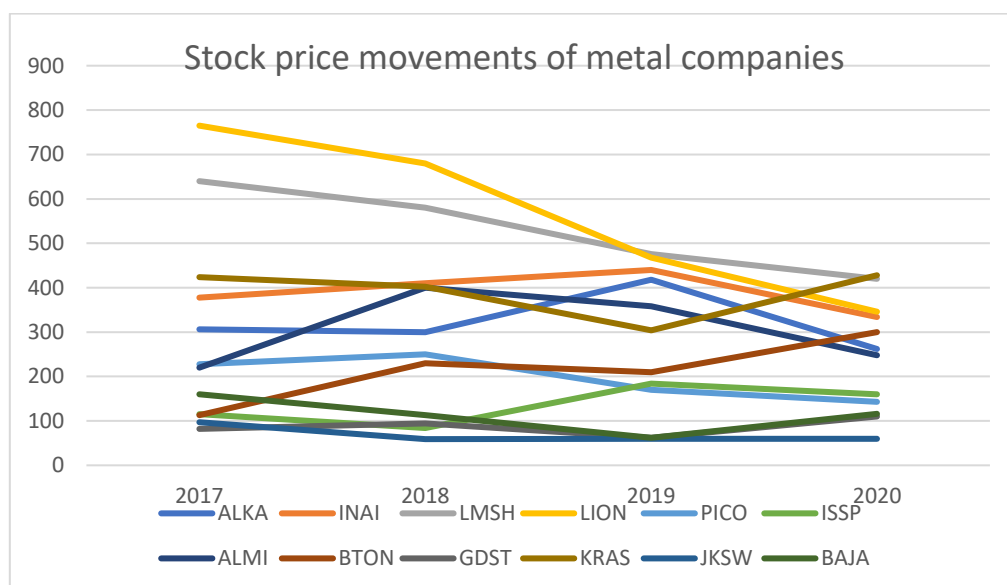
Source: processed data

Picture 1. Stock price movements

Based on the picture above, it illustrates that the stock prices of metal companies in the last year tend to experience or decrease from the previous year. As an example of a large company suffering from financial difficulties, namely PT Krakatau Steel Tbk (KRAS). The company has been hit by financial distress due to the influence of the global economy.

There are problems in financial performance, among others, the decline in share prices, indicating a decrease in the value of shares provides evidence that the financial difficulties of a company can be reflected through changes in stock prices in the capital market. The performance of a company that is considered good is reflected in the company's financial statements. Financial statement analysis is a set of tools or means in obtaining information related to the company's financial statements to classify or predict stock prices. In analyzing

financial statements, it aims to understand from time to time, the health of the company and the level of the company's financial condition. (Nafisatin et al., 2014)

Usually in predicting the bankruptcy of a company, the Altman Z-Score model is used, which was developed by Edward I.iAltman in 1968. This model is a multiple discriminant analysis model which applies 5 financial ratios in predicting the company's financial difficulties, namely working capital divided by total assets (Working Capital to TotalsAssets Ratio), retained earnings divided by total assets (Retained Earning tosTotal Assets Ratio), earnings before tax and interest divided by total assets (EarningiBefore Interest andiTaxes to TotalsAssets), market value of shares divided by book value of total debt (Market Value of Equity toiBook Value ofiDebt Ratio) and sales divided by total assets (Sales to TotalsAssets Ratio) (Kadim & Sunardi, 2018).

The purpose of the study was to analyze the financial ratios and stock prices of metal companies using the Altman Z-Score method. According to Andriawan & Salean (2016), stock prices can be influenced by the Z-Score bankruptcy analysis model. Financial difficulties not only negatively affect company management, but also external parties, such as investors or creditors. Errors in predicting the company's future survival are fatal, it can even be said that the income or investment generated in the company will disappear. For this reason, investors must predict whether the company faces the threat of financial distress.

LITERATURE REVIEW

Agency Theory

Agency Theory explains an action taken by company management to provide clues or information for investors or creditors about the company's prospects (Brigham & Houston, 2019). The stock market is considered to reflect all available information about the value of an asset. Stock prices change when the information conveyed changes. When there is good news about the company, the value and price of the company's shares will both increase, and vice versa. Then the company with financial distress prediction results, the company has information that can be used as an early warning for investors or companies. And companies that experience financial distress have information that is not expected by outsiders, and vice versa.

Stock Price

Stock price is the market value of a piece of a company's stock at a certain time. Which makes one indicator of the company's success and is strongly influenced by the demand and

supply of investors. According to Andriawan & Salean (2016) Share price is the determination of trading in the capital market which is influenced by the demand and supply of many interested entities in it such as companies and shareholders.

Financial Distress

According to Saraswati et al. (2020), the easiest condition to see from companies experiencing financial distress is a violation of debt payment commitments accompanied by the omission of dividend payments to investors. When viewed from an economic point of view, financial losses indicate that the company has failed.

Altman Z-Score

Altman (1968) was the first to apply multiple discriminant analysis, the rationale for Altman using discriminant analysis stems from the limitations of ratio analysis through its methodology on the basis of a deviation which means that each ratio is tested separately so that the effect of a combination of several ratios is only based on the judgment of financial analysts.

$$Zi = 1{,}2\,X_1 + 1{,}4\,X_2 + 0{,}6\,X_3 + 3{,}3\,X_4 + 1\,X_5$$

Keterangan :

X_1 = *Working Capital to Total Asset*

X_2 = *Retained Earning to Total Asset*

X_3 = *Earning Before Interest and Taxes to Total Asset*

X_4 = *Market value of equity to book value of liabilities*

X_5 = *Sales to Total Assets*

Table 1

The criteria for assessing difficulty are as follows:

No	Altman Z-*Score*	Description
1	*Z Score* > 2,99	Non Financial Distress
2	1,81 < *Z Score* < 2,99	Grey Zone
3	*Z Score* < 1,81	Distress

Source: Kadim & Sunardi

a. *Working Capital to Total Asset*

According to Prasetianto et al. (2021) A ratio that shows the company's ability to generate working capital from all of its total assets. Working capital is obtained from

the difference between current assets and short-term liabilities.   .

$$WCTA = \frac{Current\ Asset - Current\ Liabilities}{Total\ Asset}$$

b. *Retained Earning to Total Asset*

This ratio measures the long-term profitability of the company. If the company is able to utilize its assets with existing retained earnings, then the company is able to control its capital without the need to borrow from outside parties (debt) (Nurasia et al., 2017).

$$RETA = \frac{Retained\ Earning}{Total\ Asset}$$

c. *Earning Before Interst and Tax's to Total Asset*

According to Nurasia et al. (2017) this ratio is used to measure the effectiveness and productivity of the company in using its assets to generate profits before contractual obligations are fulfilled.

$$EBITTA = \frac{EBIT}{Total\ Asset}$$

d. **Market Value Of Equity to Book Value of Debt**

According to Riantani et al. (2020) The activity ratio measures the company's ability to provide collateral for each debt through the market value of the company's own equity, namely the number of shares of the company multiplied by the stock market price per share.

$$MVEBVL = \frac{Market\ value\ of\ capital}{Book\ value\ of\ debt}$$

e. **Sales to Total Asset**

This ratio is used to show the effectiveness of management in maximizing sales through the use of all company assets to obtain profits. (Riantani et al., 2020)

$$STA = \frac{Sales}{Total\ Asset}$$

HYPOTHESIS

Research Hypothesis

The hypotheses used in this study are:

The Effect of Working Capital to Total Assset (WCTA) on Stock Price

Working Capital to Total Asset provides an overview of the company's ability to obtain working capital from all of its assets. Based on signal theory, if the WCTA ratio is high, it affects the stock price because investors have an interest in buying the company's shares. Because companies experiencing financial distress have doubts about their ability to reverse the direction of financial distress, so that the share price is also affected.

Based on research conducted by Kadim & Sunardi (2018) explains that the WCTA ratio has a significant effect on stock prices, this is because this ratio shows the level of liquidity of a company. If the higher the WCTA ratio, the greater the adequacy of current assets to cover current liabilities when compared to all assets owned by the company. And if the net working capital obtained by the company is greater, the greater the opportunity for a company to cover its current obligations. Therefore, with the increasing performance of the company, it will attract investors to invest in the company, which in turn will increase the share price.

H_1 : *Working Capital to Total Asset has a significant effect on Stock Price*

The Effect of Retained Earning to Total Asset (RETA) on Stock Price

Retained Earning to Total Asset provides an overview of the company's ability to earn profits from all of its assets. In signal theory, it can provide a signal to the user. Companies that experience a decrease in retained earnings of small value are categorized as financial distress. If the financial statements show a decrease in retained earnings, this can cause doubts to investors, allowing the share price to decline. Usually when a company experiences losses, the value of the amount of retained earnings and this ratio will be negative.

Retained earnings are corporate profits that are not passed on to investors to finance corporate activities. This ratio implies the age of the company, and companies that have been in business for a long time, the possibility of retained earnings accumulating is large. Kadim & Sunardi's research (2018) explains that the ratio of Retained Earnings divided by Total Assets has a significant effect on stock prices, because this ratio measures the level of profitability in the long term from the company. Because if you can use assets and retained earnings well, as a company there is no need to borrow from external parties to finance its operational activities. With this, investors will have confidence in the performance of a good company and allow them to consider investing their shares in the company so that the share price can continue to increase.

H_2 : *Retained Earning to Total Asset has a significant effect on Share Price*

The Effect of Earning Before Interest and Taxes (EBITTA) on Share Price

The EBITTA ratio describes the company's ability to process all the capital that has been invested in all assets, in obtaining profits for investors. From a signal perspective, a high EBITTA ratio explains that the company can manage the company's assets properly because it has a large enough profit. Large profits can attract investors to invest so as to increase the share price. In the capital market, investors always see whether or not the company is able to make a profit, the share price will increase if the profit earned increases so that it can attract the attention of investors to own the shares.

Based on Oktaviani & Purwanto's research (2017) and Kadim & Sunardi's research (2018) where Earnings before interest and taxes divided by total assets have a significant effect on stock prices, a high ratio indicates that operating income is increasing, costs for the use of assets are decreasing, as well as increasing income on the increase in current assets. From this it means that if every year the company can increase its productivity, it will maximize the benefits received by both company owners and investors, where the demand for shares increases, meaning that once the demand for these shares increases, the share price will also increase.

H3 : Earning before Interest and Taxes to Total has a significant effect on Share Price.

Pengaruh Market Value of Equity to Book Value of Debt (MVEBVL) Terhadap Harga Saham

The MVEBVL ratio shows the ability of the company to insure each liability with the market value of the company's equity, namely the total shares multiplied by the price per share. Based on signal theory, if a high MVEBVL ratio has a significant effect on stock prices, then there is potential for the company to attract investors to increase stock prices. The MVEBVL ratio effectively predicts financial difficulties because it can explain changes in the value of a company's investment before the amount of debt exceeds the amount of assets. The higher the ratio, the higher the level of trust from investors and creditors. Companies with high ratios, make sales expenses reduced, and increase sales revenue (Kadim & Sunardi, 2018b).

Based on Oktaviani & Purwanto's research (2017), it is explained that the MVEBVL ratio has a significant influence on stock prices, this means that the greater the level of the company's ratio to cover its obligations, the company has a high potential in order to attract investors so that the share price will also increase. These results are supported by the research of Riantani

et al. (2020) which also explains that if this ratio has a significant effect on stock prices, it indicates that the higher the following ratio, the higher the stock price. Because this ratio illustrates the guarantee provided by the company for each debt with its own capital. In another sense, it shows the company's ability to fulfill all its financial obligations both in the near and long term.

H4 : Market Value of Equityito Book Valueiof Debt has a significant effect on Share Price.

Effect of Sales to Total Asset (STA) on Stock Price

The STA ratio describes the company's ability to use all of its assets to maximize sales or revenue. According to signal theory, if the STA ratio level is negative, the stock price will decrease because the company's performance is considered poor and may be responded negatively by investors who will then sell their shares back. If sales decrease continuously, it will be directly proportional to profits, so that they will also decrease or even experience losses. The small level of sales means that there is no loyalty from consumers, this causes the company to experience financial distress. The higher this value, the higher the efficiency or ability of management to use the company's assets in generating sales and earning profits. Therefore, the STA ratio can be used in taking the right investment steps, because the ratio can predict conditions that affect changes in the value of stock prices (Kadim & Sunardi, 2018b).

Research conducted by Oktaviani & Purwanto (2017) explains that there is a significant influence between sales divided by total assets on stock prices, where companies can allocate their income as much as possible, to achieve high sales. A high level of sales means creating loyalty from consumers. So investors consider the value of STA more when deciding on an investment, so that it also has an impact on the increase in stock prices.

H5 : Sales to Total Asset has a significant effect on Stock Price

The Effect of Altman Z-Score as a Prediction Tool for Potential Financial Distress on Stock Price

The five ratios of the Altman model can assess financial distress in the company, which indirectly illustrates the company's financial performance. In accordance with signal theory, a high Z-Score value reflects the company's ability to overcome its survival in the face of financial distress. So that investors dare to invest their funds and create demand for company

shares which can increase the share price. The higher the z-score value, the healthier the company. This makes investors trust to own these shares. It can be proven that the z-score method can be used as an early method to detect potential company financial distress through a financial perspective, because financial distress includes many other factors such as external factors of the company (Kadim & Sunardi, 2018b).

Based on research conducted by Nurasia et al. (2017) shows that the high value of Z-Score obtained by the company has good sustainability potential followed by a healthy level of corporate financial health. So then companies that have good prospects and with a low level of financial difficulty tend to be chosen by investors. Research conducted by Oktaviani & Purwanto (2017) also explained the significant effect of variables simultaneously on stock prices, this is because the higher the five ratios of the Altman model in a company, the healthier the company looks. This can be the confidence of investors to own shares of the company so that demand will increase and is directly proportional to the company's share price.

Likewise, according to research from Saraswati & Putra (2020), the potential for bankruptcy shown through the Z-Score value has a role in the process of increasing the company's stock price. Although there are many other factors that can affect stock prices, optimizing the financial performance of the company is the main thing because the establishment of a company is based on the principle of going concern. Supported by research conducted by Prasetianto et al. (2021) explains that simultaneously there is a significant effect on stock prices, this is because the ratios in the Altman z-score can be used to pay attention to the level of financial health of a company. If all Altman Z-score financial ratios are high, the healthier and better the company.

H6 : Altman Z-Score Variable as a Prediction Tool for Potential Financial Distress has a significant effect on Stock Price

METHOD

The population in this study were metal sub-sector manufacturing companies listed on the Indonesia Stock Exchange for the period 2016-2020, totaling 17 companies. sampling technique with purposive judgment sampling method. The criteria for companies that are sampled are metal companies that IPO before 2016, metal companies that present financial statements based on Rupiah during the 2016-2020 period and metal companies that have sales during the 2016-2020 period.

For the independent variable Altman Z-Score Ratio, this is a modified score by Altman in 1995 which can be applied to all types of companies. Altman Z-Score is obtained by measuring the WCTA, RETA, EBITTA, MVEBVL, and STA ratios.

To determine the magnitude of the influence between the independent variables and the stock price, multiple regression models are used. The multiple linear regression model used is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Description :

Y = Stock Price

α = Constant

β = Independent variable Coefficient

X_1 = *Working Capital to Total Assets*

X_2 = *Retained Earning to Total Assets*

X_3 = *Earning Before Interest and Tax to Total Assets*

X_4 = *Market Value Of Equity to Book Value of Debt*

X_5 = *Sales to Total Asset*

Data Analysis

This model uses five ratio variables and classifies the results of these calculations into predetermined cut offs, namely $Z > 2.99$ then including "Healthy", a value of $1.81 < Z < 2.99$ then including "Prone", and a value of $Z < 1.81$ then including "Distress". metal companies listed on the IDX almost all companies have a risk of experiencing financial distress.

Table 2. Average Level of Distress in Metal Companies

Number	Company code	Average Analysis						Description
		1,2 WCTA	1,4 RETA	0,6 EBITTA	3,3 MVEBVL	1 STA	Z-Score	
1	ALKA	0.1659	0.0033	0.1212	0.4433	5.7698	6.5034	Non Financial Distress
2	ALMI	-0.1746	-0.3053	-0.0966	0.1957	1.2334	0.8527	Distress
3	BAJA	-0.0966	-0.1760	0.1006	0.2221	1.3140	1.3641	Distress
4	BTON	0.7518	1.0222	0.1578	2.2350	0.4776	4.6445	Non Financial Distress
5	GDST	-0.0487	-0.0257	0.0101	0.6635	0.9200	1.5192	Distress
6	INAI	0.0351	0.0919	0.1674	0.1429	0.8627	1.3000	Distress
7	ISSP	0.2113	0.2100	0.2501	0.2005	0.7804	1.6523	Distress
8	KRAS	-0.1988	-0.4819	-0.0502	2.1939	0.3838	1.8468	Grey Zone
9	LMSH	0.4963	0.9984	-0.0060	0.0009	1.1880	2.6777	Grey Zone
10	LION	0.6304	0.5091	0.0741	0.9432	0.5354	2.6922	Grey Zone
11	PICO	0.0144	0.2323	0.1868	0.2538	0.8051	1.4925	Distress
Distress Level of Metal Companies							2.4132	Grey Zone

Source: data processed, 2022

After calculating each variable in five consecutive years, it can be seen that the average Z-Score of Metal Companies in Indonesia is 2.4132, this indicates that the overall condition of Metal Companies in Indonesia is Prone to Distress.

There are 6 companies that are declared distress or can be said to be Metal Companies with potential financial distress, namely PT.Indal Aluminum Industry Tbk, PT.Pelangi Indah Canindo Tbk, PT.Steel Pipe Industry of Indonesia Tbk, PT.Saranacentral Bajatama Tbk, PT.Alumindo Light Metal Industry Tbk and PT.Gunawan Dianjaya Steel Tbk. There are also three companies that are in the category of distress-prone or potentially experiencing financial distress, namely PT Krakatau Steel (Persero) Tbk, PT Lionmesh Prima Tbk, PT Lion Metal Works Tbk. And only two companies are in a healthy condition, namely PT.Alakasa Industrindo Tbk, and PT.Betonjaya Manunggal Tbk. Sembilan perusahaan ini dalam kurun waktu 3 tahun berturut turut diprediksikan berpotensi mengalami *financial*

distress.

This shows that the company must focus more on improving the company's performance to increase the five ratios, for example by increasing the sales volume of existing inventory, so that there is income to the company's cash from the sales. In addition to improving the financial side of the company, the company can also improve and increase the intangible assets owned by the company.

RESULTS AND DISCUSSION

Multiple Linear Analysis

Tabel 3

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	205.683	89.783	
	WCTA	391.789	126.115	.543
	RETA	36.218	71.591	.088
	EBITTA	-94.034	136.024	-.085
	MVEBVL	142.466	39.821	.495
	STA	18.194	81.746	.030

a. Dependent Variable: Stock Price

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 - \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

$$Y = 205{,}68 + 391{,}79 X_1 + 36{,}22 X_2 - 94{,}03 X_3 + 142{,}47 X_4 + 18{,}19 X_5 + e$$

Based on the results of the regression equation above, it is stated as follows:

1. Constant

   The constant value is 205.68. This shows that if all variables are constant (X1, X2, X3, X4, X5 = 0). Then the stock price value will increase by 205.68.

2. WCTA

   Working capital to total assets has a regression coefficient value with a positive direction of 391.79. This shows that every WCTA (X1) is increased by one unit with X2, X3, X4, X5 being constant, the stock price value increases by 391.79.

3. RETA

   Retained Earning to Total Asset (X2) has a regression coefficient value with a positive

direction of 36.22. This shows that every one unit increase in RETA results in an increase in stock price of 36.22 with the assumption that all variables are constant.

4. EBITTA

Earning Before Interest and Tax's to Total Asset (X3) has a regression coefficient value with a negative direction of -94.03, this shows that every one unit increase in EBITTA results in a decrease in stock price of -94.03 assuming all variables are constant..

5. MVEBVL

Market Value Equity to Book Value Liablilities (X4) has a regression coefficient value with a positive direction of 142.47. This shows that every one unit increase in MVEBVL results in an increase in stock price of 142.47 with the assumption that all variables are constant..

6. STA

Sales to Total Asset (X5) has a regression coefficient value with a positive direction of 18.19. This shows that every one unit increase in STA results in an increase in stock price of 18.19 assuming all variables are constant.

t-test (Partial)

Table 4

t-Test results (partial)
Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	205.683	89.783		2.291	.027
	WCTA	391.789	126.115	.543	3.107	.004
	RETA	36.218	71.591	.088	.506	.616
	EBITTA	-94.034	136.024	-.085	-.691	.493
	MVEBVL	142.466	39.821	.495	3.578	.001
	STA	18.194	81.746	.030	.223	.825

a. Dependent Variable: Stock price

The Effect of Working Capital to Total Asset (WCTA) on Stock Prices

Based on the test results Working Capital to Total Asset has a significant effect on Stock Prices in metal companies listed on the IDX for the period 2016 - 2020. This is because high working capital can generate high income for metal companies. Because one of the factors that determine the amount of working capital is the type and activity of the company. Where the higher the ratio, the adequacy to cover current debt by current assets can be fulfilled and the greater the possibility of the company paying existing current liabilites.

The Effect of Retained Earning to Total Asset (RETA) on Stock Price

Based on the partial test results, Retained Earning tooTotal Asset does not have a significant effect on Share Prices in metal companies listed on the Indonesia Stock Exchange for the period 2016 - 2020. Where the higher this ratio, it will not affect the share price. This does not mean that companies that have been in business for a long time are likely to have large accumulated retained earnings.

Effect of Earning Before Interest and Tax's toiTotal Asset (EBITTA) on Stock Price

Based on the results of the partial test of EarningiBefore Interest and Tax's to TotalsAsset there is no significant effect on metal companies listed on the Indonesia Stock Exchange for the period 2016 - 2020. The amount of revenue earned by the company does not mean that the company gets a large profit as well, this is because the expenses incurred by the company may be greater, causing the EBIT obtained to decrease. So that this ratio cannot show the actual productivity of the assets owned by the company. It can be said that investors when considering buying shares to invest or not, have not made the EBITTA ratio a factor in their decision, because investors in considering investing are based on following market trends and without looking at the company's financial statements, especially EBIT. Even though this ratio is of high value, the situation of declining revenue or profit from the company does not have an influence on the interest in investing as an investor.

The Influence of Market Value of Equity to Book Value of Liabiliites (MVEBVL) on Stock Price

Based on the partial test results, Market Value of Equity to Book Value of Liabilities has a significant effect on Stock Prices in metal companies listed in BEII for the period 2016 - 2020. A high ratio has the potential to lure investors to make investments, because it is able

to show the ability of the company to provide guarantees for each debt with its own capital. In other words, the company is able to fulfill all its financial debts, both current and non-current debts.

The high ratio value of the company passing its obligations, then the company has a high potential to attract investors in an effort to increase the share price. Because the company makes sales expenses less, and increases sales revenue.

Effect of Sales to Total Asset (STA) on Stock Price

Based on the partial test results, Salesto TotalsAssets does not have a significant effect on stock prices in metal companies listed on the Indonesia Stock Exchange for the period 2016 - 2020. This is because in the manufacturing industry each company has a different asset size, usually the company invests most of its capital in fixed assets so that the large assets owned by the company are more when compared to its sales. This means that management is less effective in managing and using the company's assets to obtain sales and earn profits.

The Effect of Altman Z-Score as a Prediction Tool for Potential Financial Distress on Stock Prices

Based on the simultaneous test results, the Altman Z-Score variables together have a significant influence on the stock price of metal companies listed on the IDX for the period 2016-2020. AltmaniZ-Score companies affect the stock price means that when a company is experiencing financial distress, the stock price will be lower. And then every investor will see and adjust to the changes that occur from the company with the condition of financial difficulties, which in turn turns the financial ratio into information into the stock price. Therefore, the better the z-score value, the company in the next few years is considered safe as an investment choice.

CONCLUSION

To reduce the risk of investing, it should be considered that companies with low z-score values that do not show positive changes in stock prices should be avoided due to their high level of financial distress.

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