

Financial Distress Analysis Using Altman Z-Score at PT. Sepatu Bata Tbk

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ABSTRACT

PT Sepatu Bata Tbk is one of the companies listed on the IDX which is engaged in the footwear manufacturing industry which creates various types of leather shoe sandals, this company creates products that are comfortable and durable. However, it shows that almost every year the company's net sales value has decreased rapidly from 2020 to 2023 which will affect the company's profits. This study aims to determine the condition of the health level (Financial Distress) using man Z-Score at PT Sepatu Bata Tbk. In this study, a quantitative method was used, which explains by calculating the ratios in the company using the Altman Z-Score formula. From this research, it is obtained that PT Sepatu Bata Tbk in 2021 has a z-score value of 3.56 so that it can be classified as a company in the healthy zone. Where the Z-score value is at the > 2.99 point. Meanwhile, in 2022 it is in a bankruptcy position (Grey Area), with a Z-score value of 2.09 where the Z-score value is at the cut off point of $1.81 < Z < 2.99$. In 2023 the Z-score value is 1.41, so the company can be classified as a company in the danger zone. From this research it is concluded that PT Sepatu Bata Tbk is classified as a company in the danger zone.

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1. INTRODUCTION

Increasingly fierce competition and slow economic growth have resulted in problems, especially in obtaining profits, therefore requiring each company to prevent faster by being more proactive in implementing strategies so that consumers remain interested and feel satisfied. quality and innovation made by competitors will pose a high level of risk to the company if it is not matched by the latest developments by Deli Aulia (1: 2021).

Therefore, it requires the expertise of a manager who is always required to manage and make the right decisions so that it does not experience a decline but always increases in all situations and can last for an indefinite period of time so that it can continue to develop and compete nationally and even internationally. But in reality, the above opinion does not always happen to every company, not a few can maintain their company for a long time and are forced to be dissolved due to bankruptcy (D. A. R. Harahap, 2021).

There are several methods used to measure the accuracy of bankruptcy predictions for all forms of companies in order to provide warning signals as early as possible, one of which is by using the Altman Z-Score method, this method uses measurements of several forms of ratios that are very influential to be identified in an event.

PT Sepatu Bata Tbk is one of the companies listed on the IDX which is engaged in the footwear manufacturing industry which creates various types of leather shoe sandals, this company creates products that are comfortable and durable. However, it shows that almost every year the company's net sales value has decreased rapidly from 2020 to 2023 which will affect the company's profits. The

following table of financial statements of PT Sepatu Bata Tbk for the period 2020-2023 can be seen in table 1 below :

Table 1. Financial Statements of PT Sepatu Bata Tbk for the Period 2020-2023

Period	Current Asset	No-Current Asset	Short-Term Liability	Long-Term Liability
2020	343,779,513	431,545,424	248,721,907	46,658,851
2021	297,612,923	355,129,312	197,108,646	28,708,096
2022	369,855,007	354,218,951	358,835,564	45,470,766
2023	345,014,583	336,764,984	375,526,257	69,536,129

Source : Financial Report PT. Sepatu Batu Tbk 2020-2023

Based on table 1 of the financial statements of Pt sepatu bata tbk starting from 2020-2021, its current assets decreased by IDR 46,166,590 to 297,612,923. Non-current assets decreased to IDR 355,129,424. Short-term liabilities decreased to 197,108,646. Long-term liabilities decreased to IDR 28,708,096. In 2022 current assets increased again to Rp 369,855,007, non-current assets decreased to 354,218,951, short-term liabilities increased to 358,835,564, long-term liabilities increased to 45,450,766. In 2023 current assets decreased to 345,014,583, non-current assets decreased to 336,764,984, short-term liabilities increased to 375,526,257, long-term liabilities increased to 69,536,129.

PT sepatu bata tbk, as one of the companies listed on the Indonesia Stock Exchange is experiencing significant financial distress challenges. PT sepatu bata has experienced consecutive losses for the last three years and has experienced an increase in company liabilities which raises concerns about the difficult financial condition and risk of financial distress.

Based on the background of the problems described, the problem formulation in this study is how the condition of the health level (Financial Distress) using Altman Z-Score at PT Sepatu Bata Tbk. From the formulation of the problem above, the purpose of this study is to determine the condition of the health level (Financial Distress) using man Z-Score at PT Sepatu Bata Tbk.

Research conducted by Resfitasari et al (2021) on Financial Distress Prediction Analysis using the Altman Z-Score method at PT Waskita Karya Tbk. The conclusion of this study is based on the results of the discussion which shows that Pt Waskita Karya Tbk is predicted to experience financial distress and bankruptcy during 2019-2020. In the 2019 period, the Z-Score results showed a number of 0.72 and in 2020 it was -0.09. The Z-Score value for both years is below 1.81 and it can be concluded that PT Waskita Karya Tbk is predicted to experience bankruptcy or experience financial distress (Resfitasari et al., 2021).

Gunawan & Debbianita (2022) with research on Financial Distress Analysis of Aviation and Railway Industry Sub-Sector Companies listed on the Indonesia Stock Exchange Before and After the Covid-19 Pandemic. The conclusion of this study is based on the results of the discussion which shows that the Altman A-Score and Springate methods used in financial distress analysis before and after the Covid-19 pandemic in 4 companies provide the same results where the company enters the danger zone because the company's performance has decreased. The study provides recommendations for further research using other financial distress analysis methods and increasing the research population or other types of companies (Gunawan & Debbianita, 2022).

Sari (2021) with research on Financial Performance Analysis and Financial Distress Before and During the Covid-19 Pandemic (Empirical Study of Tourism Transportation Companies on the IDX). The conclusion of this study is based on the results of the discussion which shows a significant difference from the financial performance ratio which includes ROA, ROE, and NPM in tourism companies, while the financial distress (Z-Score) of tourism companies also experienced a significant difference between before and during the Covid-19 pandemic. Then in transportation companies there is no significant difference in financial performance which includes ROA, ROE, and NPM ratios. Meanwhile, financial distress (Z-Score) experienced a significant difference between the periods before and after the co-19 pandemic (Sari & Setyaningsih, 2022).

The company will not always go according to plan, in certain situations, the company may experience minor financial difficulties such as not being able to pay employee salaries and debt interest. If not resolved properly, these small difficulties will develop into greater difficulties and can lead to bankruptcy. Financial Distress can be described through two extremes, namely from short-term liquidity to insolvable or debt greater than assets, short-term financial difficulties are usually

temporary but can develop into worse (Hanafi & Halim, 2014). According to Hery (2016: 33) financial distress is a situation where a company has difficulty fulfilling its obligations, a situation where a company's income is unable to cover total costs and experiences losses.

The types of financial difficulties according to Hery (2016: 34) are as follows:

- a. Economic failure
Economic failure is a situation where the company's revenue cannot cover total costs including the cost of capital. This business can continue its operations if creditors are willing to provide capital and owners are willing to accept below-market rates of return.
- b. Failure
Business failure is a business that stops operations as a result of losses to creditors.
- c. Technical insolvency
A company can be said to be in a state of technical insolvency if it cannot fulfil its current obligations when due. The inability to pay debts technically indicates a temporary lack of liquidity, which if given time, the company may be able to pay its debts and survive. On the other hand, if technical insolvency is an early symptom of economic failure, it may be the first stop on the road to financial disaster.
- d. Insolvency in bankruptcy
A company is in a state of insolvency in bankruptcy when the book value of debt exceeds the market value of assets.
- e. Legal bankruptcy
A company can be said to be legally bankrupt if it has been formally charged by law (Hery, 2016).

Bankruptcy is the company's inability to carry out its operations which can be seen from an economic perspective where operating expenses are greater than income and from a financial perspective where the company's obligations cannot be paid until a predetermined time limit (Rudianto 2013). Failure can be defined in two senses, namely:

- a. Economic failure (Economic Distressed), the company's income is not able to cover costs, meaning that the level of profit is smaller than capital.
- b. Financial Distressed, insolvency has two forms, namely Default is a technicality that occurs when a company fails to fulfil one or more conditions in its debt provisions.

In certain situations the company is likely to experience financial difficulties if not resolved properly, small financial difficulties can develop into larger ones and may lead to bankruptcy. There are two causes of bankruptcy in companies, namely from an economic and financial perspective, ranging from lack of managerial experience to lack of capital.

The Altman Z-score model is an indicator to measure the potential bankruptcy of a company. The Altman Z-score method was first invented by Edward I. Altman. Altman's rationale for using discriminant analysis stems from the limitations of ratio analysis, namely that the methodology is basically a deviation, which means that each ratio is tested separately. According to Hermanto and Agung (2015: 241), Altman Z Score analysis is a tool used to predict the level of bankruptcy of a company by calculating the value of several ratios and then entering them into a discriminant equation (Hermanto & Mulyo Agung, 2015). Altman Z-score is calculated as follows (S. S. Harahap, 2011):

$$Z = -1,2X_1 + 1,4 X_2 + 3,3 X_3 + 0,6 X_4 + 1,0 X_s$$

Whereas ,

- X1 = WorkingCapital to Total Assets is a ratio that shows the ratio of working capital (ie current assets minus current debt) to total assets.
- X2 = RetainedEarnings to Total Assets is the company's ability to generate retained earnings from its total assets.
- X3 = EarningBefore Interest and Taxes to Total Assets is the company's ability to generate profits from its assets, before interest and tax payments.
- X4 = MarketValue of Equity to Book Value of Liability is the company's ability to provide collateral for each debt through its own capital.

X5 = Sales to Total Assets is an activity ratio used to measure the company's ability to increase sales volume.

Table 2. Z- Score Cut Off Point

Z-Score Point	Description
> 2,99	Good
1,81 < Z < 2,99	<i>Grey Area</i>
< 1,81	Dangerous Zone

Source : Harahap, 2015

A Z-score of less than 1.81 reflects a high probability of bankruptcy, while a Z-score above 2.99 indicates a low probability. Numbers between 1.81 and 2.99 are in the grey area.

2. RESEARCH METHOD

According to Sugiyono (2013: 224) data collection techniques are the most strategic step in research, because the main purpose of research is to get data (Sugiyono, 2013). The data collection technique in this study is to use documentation techniques, where the information obtained comes from financial report data which is the sample in this study as well as other information obtained from websites that support research.

The data analysis technique used in this study is to use quantitative methods, which explains by calculating the ratios in the company using the Altman Z-Score formula. According to Siregar (2013) Quantitative data is data in the form of numbers that can be managed or analysed using statistical calculation techniques (Siregar, 2013).

The Altman Z-Score formula used is as follows:

$$Z_i = 1,2 X_1 + 1,4 X_2 + 3,3 X_3 + 0,6 X_4 + 1,0 X_5$$

Whereas,

X1= Working Capital to Total Assets

X2= Retained Earning to Total Asset

X3= Earning Before Interest and Taxes to Total Asset

X4= Market Value of Equity to Book Value of Liability

X5= Sales to Total Assets

The financial ratio formula used in Altman Z-Score

Working Capital to Total Assets (WCTA)

$$X_1 = \frac{\text{Aktiva Lancar} - \text{Utang Lancar}}{\text{Total Aktiva}}$$

Retained Earning To Total Assets (RETA):

$$X_2 = \frac{\text{Laba Kotor}}{\text{Total Aktiva}}$$

Earning Before Interest And Tax To Total Assets (EBIT)

$$X_3 = \frac{\text{Laba Sebelum Pajak (EBIT)}}{\text{Total Aktiva}}$$

Market value of equity to book value of liability (MVEBVL)

$$X_4 = \frac{\text{Nilai Pasa Ekuitas}}{\text{Nilai Buku Hutang}}$$

Sales To Total Assets (STA)

$$X_5 = \frac{\text{Penjualan}}{\text{Total Aktiva}}$$

The following are the results of the calculation of the Z-score value which can explain whether the company will fail or not in the future:

Table 3. Z- Score Cut Off Point

Z-Score Point	Description
$> 2,99$	Good
$1,81 < Z < 2,99$	<i>Grey Area</i>
$< 1,81$	Dangerous Zone

3. RESULTS AND DISCUSSIONS

After entering each ratio value into the Altman Z-score formula and then adding up the multiplication results of each variable above, the results of the bankruptcy prediction analysis using the Altman Z-score model are as follows:

Table 4. Analysis results using the Altman Z-score method at PT Sepatu Bata Tbk for 2021-2023

Period	X ₁	X ₂	X ₃	X ₄	X ₅	Z-score	Result
2021	0,15	0,29	0,09	1,68	0,29	3,56	Good
2022	0,01	0,35	0,09	1,67	0,29	2,04	<i>Grey Area</i>
2023	-0,07	0,39	0,27	1,40	0,44	1,41	Dangerous Zone

Source : Data Processed (2024)

From the table above, it can be seen the results of the calculation of the altman z-score formulation, namely PT Sepatu Bata Tbk for 2021 has a z-score value of 3.56 so that it can be classified as a company in the healthy zone. Where the Z-score value is at the point > 2.99 . Meanwhile, in 2022 it is in a bankruptcy position (Grey Area), with a Z-score value of 2.09 where the Z-score value is at the cut off point of $1.81 < Z < 2.99$. Where in 2021 it has a ratio of working capital to assets of 0.15, then the value of the ratio of retained earnings to assets is 0.29, the book value of debt is 1.68. Value and sales to total assets of 0.29. In this position the company is on the verge of bankruptcy if policies are not immediately taken to improve the company's performance, but if the company can improve the company's performance, it will be able to get out of the difficulties faced and avoid the possibility of bankruptcy. For 2023 the Z-score value is 1.41, so the company can be classified as a company in the danger zone. The influencing factor in this classification is X₁, this happens because it has a negative value, which is caused by companies that have a greater current debt value than their current assets.

DISCUSSION

Based on the results of the data analysis above, the financial condition calculated using the Altman Z-score method at PT Sepatu Bata Tbk is obtained. The results of the analysis at PT Sepatu Bata Tbk in 2021 obtained the results of the summation of the X₁X₂, X₃, X₄ and X₅ variables using the Altman-Z-score method in 2021 obtained a result of 3.56, this indicates that the company is included in the healthy zone, which means that the company is not experiencing financial distress.

The results of the analysis at PT Sepatu Bata Tbk in 2022 obtained the results of the summation of the X₁X₂, X₃, X₄ and X₅ variables using the Altman Z-score method in 2022 obtained a result of 2.09 and included in the danger zone, which means that the company is experiencing Financial Distress. And has a high risk. Although the value of working capital to total assets (X₁) in 2022 is positive, the company is still in the danger zone. This is because the total current assets owned are smaller than the current liabilities, which shows that current assets cannot finance the current liabilities owned by the company.

The results of the analysis at PT Sepatu Bata Tbk in 2023 obtained the results of the summation of variables X₁X₂, X₃, X₄ and X₅ using the Altman Z-score method in 2023 obtained a result of 1.41 and included in the danger zone which means the company is experiencing Financial Distress. In 2022 working capital to total assets (X₁) has a negative value, which is caused by the total current assets owned being smaller than the current liabilities, which shows that current assets cannot finance the company's current liabilities so that working capital divided by total assets gives negative results.

From the results of the analysis above, it is obtained that there are changes that occur within the company during the three periods of the company where in 2021 the company is in a healthy zone, but in 2022 and 2023 the company experiences financial distress, this can be seen from the values of the calculation results using the Altman Z-score method.

Research conducted by Resfitasari et al (2021) on Financial Distress Prediction Analysis using the Altman Z-Score method at PT Waskita Karya Tbk. The conclusion of this study is based on the results of the discussion which shows that PT Waskita Karya Tbk is predicted to experience financial distress and bankruptcy during 2019-2020. In the 2019 period, the Z-Score results showed a number of 0.72 and in 2020 it was -0.09. The Z-Score value for both years is below 1.81 and it can be concluded that PT Waskita Karya Tbk is predicted to experience bankruptcy or experience financial distress (Resfitasari et al., 2021).

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4. CONCLUSION

Based on the results of the research conducted, it can be concluded that PT Sepatu Bata Tbk for 2021 has a z-score value of 3.56 so that it can be classified as a company in the healthy zone. Where the Z-score value is at the point > 2.99 . Meanwhile, in 2022 it is in a bankruptcy position (Grey Area), with a Z-score value of 2.09 where the Z-score value is at the cut off point of $1.81 < Z < 2.99$. Where in 2021 it has a ratio of working capital to assets of 0.15, then the value of the ratio of retained earnings to assets is 0.29, the book value of debt is 1.68. Value and sales to total assets of 0.29. In this position the company is on the verge of bankruptcy if policies are not immediately taken to improve the company's performance, but if the company can improve the company's performance, it will be able to get out of the difficulties faced and avoid the possibility of bankruptcy. For 2023 the Z-score value is 1.41, so the company can be classified as a company in the danger zone.

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