



INTERNATIONAL JOURNAL OF TRENDS IN ACCOUNTING RESEARCH

Journal home page: <https://journal.adaindonesia.or.id/index.php/ijtar/index>



Bankruptcy Prediction Analysis of PT Jembo Company Tbk 2018-2022

Nur Erlynna^{1*}, Junillah Erdianti², Laurencia Zennita³, Putri Wulandari⁴

¹Manajemen Perkantoran, University Uitm Cawangan Selangor, Malaysia

²Accounting Department, Universitas Muhammdiyah Riau, Indonesia

³Accounting Department, Universitas Muhammdiyah Riau, Indonesia

⁴Accounting Department, Universitas Muhammdiyah Riau, Indonesia

ARTICLE INFO

Article history:

Received: 15 Jul 2023

Accepted: 16 Nov 2023

Published: 30 Nov 2023

Keywords:

Bankruptcy,

Z-Score,

cable subsector company

ABSTRACT

This research aims to report financial analysis and predict potential bankruptcy at PT Jembo Company TBK which is listed on the Indonesian stock exchange. Data was obtained from the website of the Indonesia Stock Exchange which uses the financial reports for 2018, 2019, 2020, 2021, and 2022 using the Altman Z-score method. This research is a quantitative descriptive research that is used to analyze the financial statements of PT Jembo TBK. The results show that based on the Altman Z-score analysis, PT Jembo is projected not to experience bankruptcy during the 2018-2022 period because the average value is $Z > 1.1$. This shows that the company is in a safe condition with the risk of bankruptcy until it is healthy.

1. INTRODUCTION

PT Jembo Company is a manufacturing company engaged in the cabling industry. Many similar companies have been established in Indonesia. Cables play an important role in supporting the development of the country's infrastructure. The Jembo company is a company founded in 1973 which began its activities by producing low-voltage power cables with copper conductors, then continued with low-voltage power cables with aluminium conductors, then medium-voltage power cables. This Jembo company was registered on the Indonesian stock exchange on November 18, 1992, and entered into a cooperation agreement with a leading cable company from Japan, which will be useful for increasing technological development. This company manages two business sectors, namely the manufacturing industry and the civil building construction sector.

The processing industry is a field that manufactures various kinds of electrical and electronic cables wrapped with steel insulators or insulation. The field of civil building construction is a development activity that includes the maintenance and repair of other electronic and telecommunication network construction. In the cable industry, there are two kinds of cable functions. The first is for telecommunication and the second is for conducting electricity.

Corresponding Author:

*Email: zennyanainggolan@gmail.com

With the existence of a cable company, it can meet the needs of the country, especially cables within the country itself. The existence of the movement of the company will not be separated from the existence of bankruptcy caused by the company itself. Financial condition is a major factor in bankruptcy. Financial difficulties are the first step towards bankruptcy, the same is true for the company being studied at this time, this company, when viewed from the final results of the bankruptcy calculation according to the Z-score method, the Jembo company has the potential to go bankrupt in 2022.

One way to see the potential for bankruptcy is to look at the company's financial ratios. The company's competitiveness is also determined by performance prospects, and the financial aspect is the most important in the company. The threat of a company being in a state of bankruptcy is caused by the worsening or the delay in the company's production results. Based on what has been explained above, the problem that will be discussed is bankruptcy in cable sector companies that have been listed on the Indonesian stock exchange.

The period to be used is the past five years, namely 2018-2022 which will be analyzed using the Z-score method that has been developed by Altman to be able to determine the potential for bankruptcy in companies (Purba et al, 2023). Every company must have the same goal for future sustainability, namely to get more profits or profits for the long term. Every company, not only PT Jembo company, of course, can take precautions in a company by carrying out prevention as soon as possible by conducting a bankruptcy analysis.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Bankruptcy Analysis

Bankruptcy is explained in law No. 4 of 1998. Bankruptcy is a condition where a company is no longer able to pay off its obligations. Bankruptcy usually arises due to problems or indications in the company. Bankruptcy can be analyzed earlier through the company's financial reports. The company's financial ratios can be used as a reference to see the condition of companies that have been categorized as bankrupt. The existence of bankruptcy in the company will harm various parties, the main party is the company itself, investors, lenders, and so on.

There are several things to avoid bankruptcy, namely by detecting potential bankruptcy more quickly and conducting a review of the company's financial statements so that bankruptcy does not occur. If the company has gone bankrupt, it will be difficult for the company to return to the healthy category.

Bankruptcy occurs, of course, and cannot be separated from various factors, which factors are the symptoms of inflation and deflation in the prices of goods and services as well as the existence of interest rates and financial policies. Bankruptcy can certainly be predicted by the company which can be seen from the company's cash flow indicators, strategies, financial reports, sales reports and company management capabilities. Before a company is declared bankrupt, it is usually marked by a situation or condition related to the effectiveness and efficiency of its operations.

The Altman Z-score prediction model

According to Altman, the potential for bankruptcy occurs when entering the criteria where the Z-score is more than > 2.6 , then it is declared non-bankrupt. If the company has a Z-score of 1.1 to 2.6 then it is declared a grey area/ and if the Z-score is < 1.1 then the company is automatically declared bankrupt. Various methods can be used to see potential bankruptcy, one of which is the Z-Score (Purba et al, 2023). Z-score is a method developed by Altman in 1983. This method is the basic method for knowing the signs of bankruptcy in a company. Z-score is a standard count that can show bankruptcy.

Altman Z-Score Method Ratio

Altman in his research focuses on 4 financial ratios, namely the ratio of liquidity, profitability, solvency, and performance. Working capital is the net working capital of the company. This working capital is a ratio used to measure company liquidity. The way to find out working capital is by the formula:

$$X^1 = \frac{\text{Current assets} - \text{current liabilities}}{\text{Total assets}}$$

Retained earnings

Retained earnings are part of net income that is not distributed as dividends to shareholders. Retained earnings are a measure of company profitability. The smaller the profit ratio, the worse the company's condition. This can be known through the following formula:

$$X^2 = \frac{\text{retained earnings}}{\text{total assets}}$$

Earning before interest

Earning before interest or what can be said as interest profit before tax Earning before Interest ratio is a ratio that can measure income before tax to company assets with the following formula :

$$X^3 = \frac{\text{EBIT}}{\text{Total assets}}$$

Market value of equity to book value

The ratio shows the company's ability to meet the obligations of the company's capital. With a formula like this:

$$X^4 = \frac{\text{Capital}}{\text{the total amount of debt}}$$

A Review of Previous Research

Tohari et al. (2015) conducted research on the Textile Mill Products subsector industry listed on the Indonesian stock exchange for the 2009-2013 period using the Altman Z-score method. The results show that six companies are predicted to go bankrupt with unhealthy financial conditions, and one company is predicted to be a grey area or prone to bankruptcy which makes it possible for this company to go bankrupt and not even go bankrupt due to fluctuating financial conditions making unhealthy financial conditions, while one more company is predicted not to. bankrupt with a very healthy financial condition. So that this research process supports a high level of accuracy using the Altman Z-score method. Another research conducted by Marcelinda et al (2014) examined manufacturing companies that were listed on the Indonesian stock exchange for the 2010-2012 period using the Altman Z-score method. The results show that the percentage accuracy of the Altman Z-score model in terms of the auditor's opinion produces a prediction accuracy rate of 27.96%. This means that the Altman Z-score bankruptcy prediction model has a low level of accuracy.

Melia & Deswita (2020) tried to examine companies engaged in the Trade, Service and Investment Sector in the Wholesale Durable and nondurable Goods Subsector which were listed on the IDX for the 2014-2018 period using the Altman Z-score method. the results for five companies, the first company that is in a safe condition or that obtains a Z-score value of more than 2.60 is PT Leo Investments Tbk for the 2014-2016 period. Second, a company that is in a grey condition or that obtains Z-value scores between $1.1 > Z < 2.60$ are PT Bintang Mitra Seversaya Tbk 2018, PT Modern International Tbk 2014 period and PT Leo Investment Tbk period 2017. Third, companies that are in a state of bankruptcy that obtain a Z-score value of less than 1 .1 is Pt exploitation energy Indonesia tbk 2014-2018 period, pt bintang mitra bintang semestraya tbk 2104-2017 period, Pt intraco penta tbk 2014-2018 period, and pt

modern international tbk 2015-2018 period. Saputra et al (2021) tried to research using the Altman z-score, Springate, Majewski, Foster, and Grover methods at Bank Mandiri Tbk. The results show that the Altman z score model is more sensitive by giving a score to the grey area position in one of the periods in 2016-2019. Efforts to use bankruptcy prediction for companies were also carried out by Rahmawati et al (2021) at PT Ultrajaya & Trading company in 2016-2019, the results showed no indication or potential for bankruptcy for the company.

3. RESEARCH METHODS

This study uses a descriptive approach to describe the situation in the observation years by calculating the formula contained in the z score. Data was taken from the annual report of PT Jembo Company Tbk in 2018, 2018, 2020, 2021 and 2022. To check, the researcher explored reports from year to year regarding potential bankruptcy and then compared them with the calculation results using the Altman Z Score. In carrying out the calculations after knowing the company's ratio, an analysis will be carried out using the Altman Z-score method, namely with the following information:

X1 = capital to total assets

X2 = retained earnings to total assets

X3 = profit before interest & tax on total assets

X4 = net capital to total assets

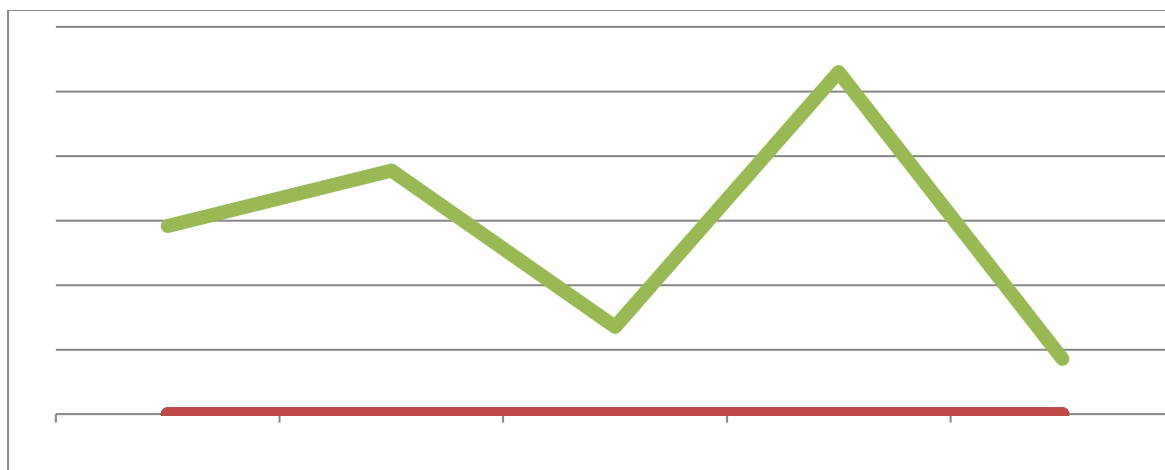
After getting the results, analysis and discussion are carried out to provide conclusions.

4. RESULTS AND DISCUSSION

Table 1: Bankruptcy Analysis Calculation Results

| Years | X1 | X2 | X3 | X4 | Z-score | Descriptions |
|-------|------|------|------|------|---------|--------------|
| 2018 | 0,04 | 0,22 | 5,51 | 0,06 | 5,83 | Non-bankrupt |
| 2019 | 0,05 | 0,19 | 7,26 | 0,04 | 7,54 | Non-bankrupt |
| 2020 | 1,06 | 0,02 | 0,63 | 0,99 | 2,7 | Grey Area |
| 2021 | 0,66 | 8,85 | 0,12 | 0,99 | 10,6 | Non-Bankrupt |
| 2022 | 0,02 | 0,05 | 1,33 | 0,31 | 1,7 | Non-Bankrupt |

From the results of the calculation table, it can be interpreted as PT. Jembo Cable Company Tbk is included in the non-bankrupt classification, or it can be said to be healthy, but in 2022 PT Jembo company will experience losses so that it will experience potential bankruptcy, which can be seen from the calculation of the Z-score obtained for five periods is between the cut-off values of 1.81 and 2.99. The company will experience a greater degree of difficulty in 2022.



Graph 1: Analysis calculation results

From the data and calculations above and each variable from X1 to X4 for 5 periods, namely 2018-2022, PT Jembo's company produces an average Z-score of 1.71-10.6. When viewed from the category of the Altman Z-score method, the company can be categorized as in a healthy condition, but the company has the potential for bankruptcy in 2022 with a Z-score value of 1.7, which means it is close to 1.1. During the last five years, PT Jembo experienced various challenges such as a surge in raw materials, especially aluminium and copper and a decrease in the number of goods sold. The decline in export sales due to intense global competition and declining sales of medium-voltage power cables due to the slowdown in tenders from the state electricity company (PLN) were also factors affecting the company's financial performance, such as a decrease in net profit earned. Judging from the prediction of the Altman Z-Score bankruptcy model, it is predicted that the company will experience a healthy condition for four consecutive years and in the last year it has experienced a potential bankruptcy.

The company as much as possible to prevent bankruptcy in the coming year by clearly establishing the company's plan, increasing sales to the company, considering the financial condition and reviewing the company's finances at any time

5. CONCLUSIONS

Conclusion

The results of the calculation based on the Z-score analysis are three years in a healthy or non-bankrupt condition, one year in a grey area and the last year, namely in 2022, there is a potential for bankruptcy when viewed from a non-bankrupt year, this company works well and can maintain company financial condition. When this company went bankrupt, it could not be separated from the company's mistakes, the lack of review of financial reports and the lack of potential for company sales. Companies are required to improve the company's liquidation capabilities to prevent bankruptcy in the following year. It is said to have gone bankrupt in the last year because, after calculations, PT Jembo company is in the <math><1.81</math> category, which means the company will go bankrupt in 2022

This value has been determined by Altman in his Z-score method. The potential for bankruptcy cannot be separated from the company's finances. In Jembo companies in the last year, namely 2022, there is a potential for bankruptcy, the existence of this potential can make companies tend to go bankrupt. However, it can be seen from the previous years that this Jembo company was able to maintain its company despite experiencing difficulties in the company

REFERENCES

- Marcelinda, S. O., Paramu, H., & Puspitasari, N. (2014). Analisis Akurasi Prediksi Kebangkrutan Model Altman Z-Score pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia. *E-Journal Ekonomi Bisnis Dan Akuntansi*, 1(1), 1–3.
- Martini, R., Aulia, D., & Sari, K. R. (2021). Penerapan Metode Altman Untuk Mendeteksi Risiko Kebangkrutan The Altman Method to Detect Bankruptcy Risk. *Jurnal Penelitian Ekonomi Dan Akuntansi*, 6(3), 255–262. <http://jurnalekonomi.unisla.ac.id/index.php/jpensi>
- Melia, Y. & Deswita, R., (2020). Predeksi Kebangkrutan dengan Menggunakan Metode Altman Z-Score *Jurnal Akuntansi Keuangan Dan Bisnis*, 13(1), 71–80.
- Pangkey, P. C., Saerang, I. S., & Maramis, J. B. (2018). Analisis Prediksi Kebangkrutan Dengan Menggunakan Metode Altman Dan Metode Zmijewski Pada Perusahaan Bangkrut Yang Pernah Go Public Di Bursa Efek Indonesia. *Jurnal EMBA*, 6(4), 3178–3187.
- Purba, R., Nugroho, L., Santoso, A., Hasibuan, R., Munir, A., Suyati, S., Azmi, Z. & Supriadi, Y. (2023). Analisis Laporan Keuangan. Global Eksekutif Teknologi.
- Rahmawati, N., Sansitika, D. R., & Azmi, Z. (2021). Analisis Financial Distress Dengan Menggunakan Metode Altman Z-Score, Springate, Zmijweski, Dan Grover Pada Pt. Ultrajaya Milk Industry And Trading Company Tbk Dari Tahun 2016-2019. *Research in Accounting Journal (RAJ)*, 1(3), 440-450.
- Saputra, I., Hermanto, W. C., Azmi, Z., & Akhmad, I. (2021). Analisis Kebangkrutan Menggunakan Metode Altman Z-Score, Springate, Zmijweski, Foster, Dan Grover Pada Bank Mandiri Tbk. *Research in Accounting Journal (RAJ)*, 1(3), 431-439.
- Tohari, M. Z., Sudjana, N., Zahroh ZA, (2015). Prediksi Kebangkrutan Menggunakan Analisis Model Z-Score (Studi Pada Subsektor Textile Mill Products Yang Terdaftar Di Bursa Efek Indonesia Periode 2009-2013)