

# Bankruptcy Analysis Using The Altman Z-Score Method At The Service Company Pt Arya Mahawira Sejahtera

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**Abstrak:** Penelitian ini dilakukan dengan tujuan menganalisis dan mengetahui prediksi kebangkrutan serta penyebabnya pada perusahaan jasa yang bergerak dibidang akomodasi perhotelan yakni PT Arya Mahawira Sejahtera periode 2019-2021 dan menyajikan kinerja perusahaan dalam menghindari risiko kebangkrutan.Penelitian ini tergolong penelitian kualitatif studi kasus yang menerapkan teori analisis rasio. Dalam penelitian ini menggunakan data primer yaitu wawancara tidak terstruktur serta data sekunder berupa dokumen laporan keuangan PT Arya Mahawira Sejahtera periode 2019-2021. Analisis data dilakukan dengan menggunakan analisis rasio dengan metode Altman Z-Score secara deskriptif interpretatif. Hasil Analisa menunjukkan, kondisi keuangan PT Arya Mahawira Sejahtera berada pada kondisi yang tidak baik. Nilai Z-Score yang diperoleh yakni pada tahun 2019 sebesar 0,870, di tahun 2020 sebesar -1,626, dan di tahun 2021 sebesar -2,631 yang mana dari tahun 2019 ke tahun 2020 skor yang diperoleh perusahaan mengalami penurunan drastis dan berlanjut turun hingga tahun 2021 dan mengindikasi perusahaan terindikasi bangkrut. Kondisi perusahaan yang terindikasi bangkrut disebabkan rasio working capital to total asset (X1), Retained earning to Total asset (X2), Earnings before interest and taxes to total asset (X3) dan rasio market value of equity to total liabilities (X4) yang cenderung bernilai negatif dan menurun setiap tahunnya. Upaya meningkatkan kinerja terus dilakukan PT Arya Mahawira Sejahtera dalam operasional perusahaan, pemasaran, serta kebijakan anti korupsi agar perusahaan dapat terhindar dari kondisi kebangkrutan.

Kata Kunci: laporan keuangan, altman z-score, rasio keuangan, kebangkrutan

**Abstract:** This study aims to analyze and find out the prediction of bankruptcy and its causes in service companies engaged in hospitality accommodation, namely PT Arya Mahawira Sejahtera for the 2019-2021 period and present the company's performance in avoiding the risk of bankruptcy. This research is classified as a qualitative research case study that applies ratio analysis theory. In this study, primary data was used, namely unstructured interviews and data in the form of financial statement documents of PT Arya Mahawira Sejahtera for the 2019-2021 period. Data analysis was carried out using ratio analysis with the Altman Z-Score method in a descriptively interpretive manner. The results of the analysis show that the financial condition of PT Arya Mahawira Sejahtera is in a bad condition. The Z-Score obtained was in 2019 of 0.870, in 2020 it was -1.626, and in 2021 it was -2.631 which from 2019 to 2020 the score obtained by the company decreased drastically and The condition of the company indicated bankruptcy is due to the ratio of working capital to total assets (X1), Retained earnings to Total assets (X2), Earnings before interest and taxes to total assets (X3) and the ratio of market value of liability to total liabilities (X4) which tends to be negative and decreases every year. Efforts to improve performance continue to be carried out by PT Arya Mahawira Sejahtera in company operations, marketing, and anti-corruption policies so that the company can avoid bankruptcy conditions.

Keywords: financial statement, altman z-score, financial ratios, bankruptcy

## Introduction

A company is an association that stands with the aim of obtaining profits through its potential management activities. This profit or profit is generated based on the company's revenue after being processed at the cost or expense of the company during the company's operation (Alim, 2017). The profit generated by the company will then be used to meet the company's needs in renewal or innovation that will support the company's existence in the future. Types of enterprises can be distinguished by the type of sector, industry, activity, as well as services that the company runs in its operational process. The industry in the hotel accommodation sector is an industry that has its own potential in Indonesia, especially the Province of Bali. As the world's best tourist destination, accommodation is very easy to find in every corner of Bali. According to data from the Central Statistics Agency for the Province of Bali in (2021), there were 403 star hotels and 3,912 non-star hotels and other types of accommodation. This data indicates the level of business people in this sector is quite high. The higher the number of business actors in the same sector, the greater the competition that will be faced by a company. Bankruptcy is a situation where the company's obligations are no longer able to be repaid (Ubbe, 2019). Companies that are indicated to be bankrupt can be identified early by observing the company's financial statements. If the company is experiencing a continuous level of economic difficulty, it is indicated that the company is experiencing bankruptcy. This situation usually begins with short-term financial difficulties which if left unchecked will develop into insolvable difficulties (the value of debt exceeds the value of assets) which can result in the company and can indirectly provide information on the company's performance at a certain time in the accounting cycle. By analyzing financial statements through analytical methods or techniques, it aims to process raw data from the company's financial statements into more useful, in-depth and sharp information (Sanjaya, 2018).

To analyze financial statements, there are many methods that can be used, one of which is the Multiple Discriminant Analysis (Z-Score) method. This method analyzes by combining several financial ratios that are combined in an equation, then the results of the combination of these ratios generalize to all existing ratios. According to Sanjaya (2018), one of the most famous models of the Z-Score method is the Altman Z-Score method. Altman Z-Score is a method proposed by Edward I Altman. Altman (1968) argues that the measurement of the ratio of profitability, liquidity, and solvency is the most influential and appropriate ratio of several ratios to detect the state of bankruptcy of a company. Research conducted by Altman using 33 samples of companies that were bankrupt and not bankrupt obtained the results that his method was able to identify bankruptcy with an accuracy rate of 95% (Susilawati, 2018).

PT Arya Mahawira Sejahtera is a service company engaged in accommodation which is divided into 2 villa units, namely Adiwana Arya Villa and Amatara Arya Ubud. This company has been established since 2018 and is located in a strategic tourism area, namely Ubud. During the Corona Virus Disease 2019 (COVID-19) pandemic situation starting in early 2020 in Indonesia, many business sectors experienced a very significant decline in income. PT Arya Mahawira Sejahtera is one of the companies affected by this global pandemic. the company has decreased from the last 3 years. Likewise, the current debt owned by the company decreased in proportion to the current assets owned by the company. The company's current liabilities consist of debts to suppliers, taxes payable, customer deposits and other expenses. Another problem with the company is the company's working capital which has decreased every year since the last 3 years. This indicates the company is experiencing short-term financial difficulties that need to be considered so that the company does not lead to bank-ruptcy. So that the analysis of the company's financial statements is appropriate to predict the potential bank-ruptcy of PT Arya Mahawira Sejahtera in the 2019-2021 period.

## Method

This study uses primary data types, namely unstructured interviews (free interviews without using certain systematic guidelines) regarding the condition of the company to related parties and secondary data in the form of internal documents originating from the company itself, namely the financial statements of PT Arya Mahawira Sejahtera. Data collection techniques used are documentation studies or literature studies. The validity of this research data uses triangulation techniques, namely observation, interviews, and documentation. Data analysis is a ratio analysis technique that is carried out descriptively interpretively. Data analysis was carried out by collecting data on the financial statements of PT Arya Mahawira Sejahtera for the period 2019-2021, then the required data was substituted into the calculation of the Altman z-score ratio consisting of x1, x2, x3, x4. Altman Zscore is formulated as follows:

Z" = 6.56 X1 + 3.26 X2 + 6.72 X3 + 1.04 X4

Information: Z" = Index Value X1 = Working Capital / Total Assets X2 = Retained Earnings / Total Assets X3 = Profit Before Interest and Taxes/ Total Assets X4 = Book Value of Equity / Total Debt X5 = Sales / Total Assets

The results of the calculation of the ratio can then be classified as follows: Z < 1.1: Bankrupt , 1.1 < Z < 2.6: Vulnerable Condition (gray area), Z > 2.6: Not Bankrupt

## **Result and Discussion**

1. Result

Based on table 1 below, shows the condition of financial performance at PT Arya Mahawira Sejahtera period 2019-2021 use Altman Z-Score modified ratios.

Year	6,56 (X1)	3,26 (X2)	6,72	6,56 (X1)	Z-Score Re-	category
					sults	
2019	0,153	-0,105	0,489	0,332	0,870	Bankrupt
2020	-0,091	-0,333	-1,549	0,347	-1,626	Bankrupt
2021	-0,270	-1,249	-1,466	0,353	-2,631	Bankrupt

Table 1. Altman Z-Score modified Ratio Analysis Result

The calculation results of the Altman Z-Score Modified analysis show that in 2019, 2020, and 2021 the company obtained results below the 1.1 index which indicates that the company is indicated to be insolvent.

#### 2. Discussion

PT Arya Mahawira Sejahtera is indicated to have experienced bankruptcy judging from the Z-Score index obtained below the value of 1.1. Every year the score obtained is getting smaller which shows that the state of the company is declining every period. The Z-Score obtained was in 2019 of 0.870, in 2020 it was -1.626, and in 2021 it was -2.631 which from 2019 to 2020 the score obtained by the company decreased drastically and continued to fall until 2021 and indicated the company was indicated to be bankrupt. The condition indicated by bankruptcy experienced by PT Arya Mahawira Sejahtera in terms of the ratio of working capital to total assets (X1) in 2019-2021 tends to be negative. The negative value ratio is caused by the value of working capital that cannot offset the total assets. The value of current debt that is greater than current assets will cause difficulties in meeting the company's short-term obligations. so that it can be seen that the company in managing working capital is still not optimal, so the company leads to a state of bankruptcy. The ratio of retained earnings to total assets (X2) from 2019-2021 is negative and decreases from year to year. This indicates that the company suffered losses that amounted to exceed the accumulated retained earnings of previous years. The small number of X2 ratios is also supported by the situation where PT Arya Mahawira is a company that is still newly established because relatively young companies generally get low calculation results.

The ratio x3 wich is earnings before interest and taxes to total assets shows the ability of a company to make a profit from the company's activities, before interest and taxes. The results of the ratio of earnings before interest and taxes to total assets (X3) obtained by PT Arya Mahawira Sejahtera showed a decrease in 2020 to touch a minus value and an increase of 0.013 in 2021. This condition is caused because the company's profit before interest and taxes is relatively smaller than the assets owned. This triggered the company to obtain a small Z-Score so that the company was indicated to be insolvent.

The increase in the company's net profit can be done by increasing revenue and streamlining operational financing. Revenue from service companies can be increased by understanding customer satisfaction and needs, implementing attractive offers, conducting periodic performance evaluations and maintaining good

relations with customers. Another important thing that can support the company's revenue is in terms of marketing. Proper marketing will greatly benefit the company in the sale of the services offered. The ratio of market value of equity to total liabilities (X4) obtained by the company increases every year, albeit at a low value. This ratio may increase if the company reduces overfinance using debt. A high amount of debt will lead to large interest costs and reduce the company's profit. dependence on high debt will make it difficult for the company to develop and have a small profit.

The company PT Arya Mahawira Sejahtera has a big goal in running its business. From its inception, namely in November 2018, the company developed its business which focuses on services in the form of hospitality accommodation equipped with restaurant facilities called Wayang Restaurant and spa services called Teja Spa. Over time the company's business has expanded with various service offers presented ranging from guest pickup and drop-off services, providing event facilities such as weddings, birthday celebrations, meeting facilities and meeting events and the like. By offering villa facilities with the theme of gardens and antique and magnificent wooden houses, the services of this company are in great demand by foreign tourists visiting Bali. Moreover, the location of the villa area is in the middle of the rice fields of the Ubud area and the mountain view spreads on the north side. During the situation before the pandemic, during the high season of visitors, all visitor units will be sold out, this is also supported by the best service provided by all staff. Operations, especially in the services provided by staff, are the advantages offered by the company, where all staff are committed that customers are families, so they will be served wholeheartedly and full of familiarity. In addition, establishing good cooperation with vendors is also carried out with the aim of supporting the company's operations. All staff and their respective duties will be evaluated in each specific period to maintain the quality of services provided. So it is hoped that when the situation has improved, the company is ready to provide better service and obtain an increase in sales. PT Arya Mahawira Sejahtera in maintaining its business existence carries out marketing strategies ranging from cooperation with e-Commerce parties to through personal social media owned by the company. Through social media the company will share interesting information about the offers made by the company's business within a certain time. and introduce the company's business both in terms of services provided and the condition of the villa units. In addition, efforts to improve the financial condition of PT Arya Mahawira Sejahtera also implement and support corruption laws and regulations by implementing a commitment to governance with integrity.

## Conclusion

The financial condition of PT Arya Mahawira Sejahtera in the 2019-2021 period experienced a bad condition. Over the past three years, the Z-Score obtained by the company has been below the safe score figure, namely at 0.870 in 2019, at -1.626 in 2020, and estimated at -2.631 in 2021. The low Z-Score result is triggered by the acquisition of a ratio index starting from the X1-X4 ratio obtained by the company tends to be low. This indicates that the company is indicated to have experienced bankruptcy. PT Arya Mahawira Sejahtera always maintains the company's existence by conducting evaluations and marketing strategies to improve the company's performance, and is committed to implementing anti-corruption policies so that the company can avoid worse conditions.

This research has implications for PT Arya Mahawira Sejahtera, where by analyzing financial performance, this research can be useful for companies to take a broader look at the problems that occur and reconsider the company's financial condition as useful improvement material in the analysis of bankruptcy predictions, causal factors, and how to maintain the company's prospects.

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## Reference

Alim, A. F. (2017). Analisis Prediksi Kebangkrutan Dengan Model Altman ZScore Pada Perusahaan Makanan dan Minuman yang Terdaftar di Bursa Efek Indonesia.

- Altman, E. I., & Hotchkiss, E. (2005). Corporate Financial Distress and Bankruptcy. https://onlinelibrary.wiley.com/doi/book/10.1002/9781118267806
- Fahma, Y. T., & Setyaningsih, N. D. (2021). Analisis Financial Distress Dengan Metode Altman, Zmijewski, Grover, Springate, Ohlson Dan Zavgren Untuk Memprediksi Kebangkrutan Pada Perusahaan Ritel. Jurnal Ilmiah Bisnis Dan Ekonomi Asia, 15(2), 200–216. https://doi.org/10.32815/jibeka.v15i2.398
- Kasmir. (2016). Analisis Laporan Keuangan. Jakarata: Rajawali Pers.
- Kasmir. (2018). Analisa Laporan Keuangan. Jakarta: PT Raja Grafindo Persada
- Kusumawati, W. S. (2016). (Studi pada Perusahaan Manufaktur yang Listing di BEI periode 2012-2014). Jurnal Administrasi Bisnis, 35(2,), 127-135.
- Putra, I. G. S. H. A. A. A., Purnamasari, L., & Surnarsi, D. (2021). Analisis Laporan Keuangan. Surabaya: Cipta Media Nusantara.
- Sanjaya, S. (2018). Analisis Prediksi Kebangkrutan Perusahaan Dengan Menggunakan Metode Altman Z-Score Pada Perusahaan Sektor Perkebunan Yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2011-2016. Jurnal Ilman, 6(2), 51–61. http://journals.synthesispublication.org/index.php/ilman
- Susilawati, E. (2018). Prediksi Kebangkrutan Dengan Model Altman Z-Score Pada Perusahaan Farmasi Yang Terdaftar Di Bursa Efek Indonesia Periode 2012-2016. Jurnal Akuntansi Dan Keuangan, 9(1), 10. https://doi.org/10.36448/jak.v9i1.999
- Ubbe, M. S. (2019). Analisis Tingkat Kebangkrutan. Jurnal Manajemen Bisnis, 1, 105–112.
- Undang-Undang Republik Indonesia Nomor 40 Tahun 2007 Tentang Perseroan Terbatas. (2007).
- Whelan, J., & Demangeot, C. (2015). Signaling Theory. Wiley Encyclopedia of Management, 1–1. https://doi.org/10.1002/9781118785317.weom090243