

Bankruptcy Prediction Analysis of Media and Entertainment Subsector Industry in 2022-2024 Using Altman Z-Score Model

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Abstract

Tight business competition and changing times provide challenges for companies to always innovate and be more creative in order to survive and maintain the continuity of the business being run. This study aims to predict bankruptcy in four media and entertainment subsector companies in 2022-2024 using the modified Altman Z-Score model. The research objects used are PT Net Visi Media Tbk, PT Media Nusantara Citra Tbk, PT Surya Citra Media Tbk, and PT Visi Media Asia Tbk. The method used is descriptive quantitative research method. The data used is secondary data in the form of company financial reports obtained from the IDX. The results of the Z-score analysis in this study indicate that there are two companies that are indicated to experience bankruptcy, namely PT Net Visi Media Tbk and PT Visi Media Asia Tbk with a Z-score of less than 1.10 during 2022-2024 and there are two companies that are not indicated to experience bankruptcy, namely PT Media Nusantara Citra Tbk and PT Surya Citra Media Tbk with a Z-score of more than 2.60 during 2022-2024.

Keywords: *Altman Z-Score, Bankruptcy, Financial Statements.*

INTRODUCTION

Changing times and intense competition are a challenge for company management to be able to carry out appropriate management control in managing the company in order to improve performance as expected. The performance of a company can be reflected in the company's financial statements. Healthy financial reports indicate that management is managing the company well and unhealthy financial reports indicate that management is not managing the company well, if the poor management is not followed up immediately, the company can experience the worst possibility of bankruptcy.

Bankruptcy analysis is carried out to obtain an early warning, because recognizing signs of bankruptcy early on will be better for company management in preparing a repair strategy. Bankruptcy analysis can be calculated using several models, including Springate (S-Score), Zmijewski (X-Score), and Altman (Z-Score) (Sucipto, 2023).

The shift to digitalization has had a significant impact on various economic sectors, especially in the media and entertainment subsector. Companies that are unable to create innovations and strategies will be left behind by companies that have various innovations. Media digitization in the midst of internet advances has changed the behavior of television viewers to switch to using video streaming services which are currently growing rapidly. Quoted from the komdigi website, the population of television viewers, especially in Indonesia, has decreased significantly. Based on the results of the Nielsen survey as of June 15, 2023, television users before ASO were around 130 million viewers, and after ASO fell to 124.2 million viewers (komdigi.go.id). The shift in the use of television media to streaming video services is motivated by the flexibility factor in access, streaming video services are available on all smartphones with

many digital platforms and can be accessed very easily in all places. Video streaming service platforms that are currently widely used by most people include youtube, netflix, disney +hotstar, and viu. The media and entertainment presented in streaming video services are more varied and can be accessed repeatedly according to the user's wishes, in contrast to scheduled television.

The media and entertainment sector is experiencing an extreme revolution due to digitalization. Not a few companies have experienced a decline in financial performance, as happened to PT Net Visi Media Tbk (NETV). In the annual financial report of PT Net Visi Media Tbk in 2023, there was a significant increase in the amount of losses. PT Net Visi Media Tbk recorded a loss of Rp 634 billion in 2023, this figure increased by 249% compared to the loss in 2022 which only amounted to Rp 181.6 billion. The increase in the amount of losses was due to a decrease in total revenue in 2023 by 46.26% or Rp 202.93 billion compared to total revenue in 2022 of Rp 438.68 billion, so that the total revenue earned by the company was only Rp 235.75 billion in 2023. In addition, there was an increase in operating expenses in 2023 of 85.73% or Rp 308.57 billion compared to operating expenses in 2022 of Rp 359.94 billion, so that the total operating expenses in 2023 were Rp 668.51 billion. Then, when viewed in the 2023 financial statements, the company's total liabilities increased by 11.55% or Rp 201.19 billion from total liabilities in 2022 of Rp 1.74 trillion to 1.94 trillion in 2023. The increase was due to an increase in trade payables of Rp 167.30 billion and an increase in accrued expenses of Rp 51.13 billion.

Previous research conducted by Azizah (2025) discussed the assessment of the financial performance of PT Net Visi Media Tbk using financial ratio analysis and concluded that the company's liquidity level was below industry standards based on the results of the cash ratio, quick ratio, and current ratio. The results of that study explain that the company is not optimal in utilizing assets to generate profits and indicated to bear losses for the decline in financial performance.

Motivated by the decline in the company's financial performance, research was conducted on the potential for bankruptcy in the media and entertainment subsector industry, namely, PT Net Visi Media Tbk, PT Media Nusantara Citra Tbk, PT Surya Citra Media Tbk, and PT Visi Media Asia Tbk. The formulation of the problem that will be discussed in this study is how is the profile of bankruptcy risk in four media and entertainment subsector companies in 2022-2024 based on the Altman Z-Score model?

This study aims to predict bankruptcy in four media and entertainment subsector companies using the Altman Z-Score model. It is hoped that this research can provide benefits to related parties, namely being used as a reference for management control for media and entertainment subsector companies that have the potential for bankruptcy, increasing the author's insight and ability to carry out research on the potential bankruptcy of a company.

RESEARCH METHODS

This study uses quantitative research methods with a descriptive approach that aims to provide a systematic description of a phenomenon with accurate data, the data obtained and the results obtained will be in the form of numbers (Sahir, 2022). This approach was chosen because the data used in the analysis process is in the form of mathematically processed numbers and provide explanations related to the bankruptcy risk profile of each company that is the object of research. The objects used in this study are four media and entertainment sub-sector companies

listed on the Indonesia Stock Exchange, namely PT Net Visi Media Tbk (NETV), PT Media Nusantara Citra Tbk (MNCN), PT Surya Citra Media Tbk (SCMA), and PT Visi Media Asia Tbk (VIVA).

The data source used is secondary data in the form of company financial reports (statements of financial position and income statements) obtained indirectly from the IDX. The following are the data used in conducting the analysis.

**Table 1. Data used in the analysis
(in billions of rupiah)**

Company	Year	Current Asset	Current Liabilities	Total Asset	Total Liabilities	Equity Value	Retained Earnings	EBIT
NETV	2024	655	342	1.045	369	675	(3.732)	(81)
	2023	691	1.875	1.215	1.943	(728)	(3.653)	(638)
	2022	1.099	555	1.650	1.742	(92)	(3.023)	(144)
MNCN	2024	10.679	1.337	24.643	2.061	22.581	18.804	1.345
	2023	9.855	1.227	22.766	1.844	20.921	17.732	1.320
	2022	9.713	2.058	22.422	2.513	19.909	16.777	2.782
SCMA	2024	7.252	2.198	10.815	2.459	8.356	6.849	802
	2023	7.427	2.278	11.053	2.570	8.483	6.889	419
	2022	7.629	2.083	11.075	2.366	8.709	6.966	1.095
VIVA	2024	2.938	12.715	7.872	13.007	(5.135)	(8.431)	(2)
	2023	2.886	12.710	7.877	13.000	(5.123)	(8.409)	(3.374)
	2022	3.551	10.197	8.873	10.458	(1.584)	(5.123)	(1.709)

Source: data processed, (2025)

This study uses a multivariate discriminant data analysis method, namely the modified Altman Z-Score in analyzing the prediction of company bankruptcy. This method is used because the object of research includes non-manufacturing companies or service companies, so the modified Altman Z-Score method is suitable for use in conducting analysis (Tania, 2021). The modified Altman Z-Score method is calculated using the following equation:

$Z = 6.56X_1 + 3.26X_2 + 6.72X_3 + 1.05X_4$	
X1	= $\frac{\text{Net Working Capital}}{\text{Total Asset}}$
X2	= $\frac{\text{Retained earnings}}{\text{Total Asset}}$
X3	= $\frac{\text{Earning Before Interest and Tax}}{\text{Total Asset}}$
X4	= $\frac{\text{Book value of equity}}{\text{Total Liabilities}}$

1. X_1 ratio to calculate the liquidity of the company and the efficiency of asset utilization. The high ratio value provides information that the company has a good ability to pay short-term debt. The low ratio value provides information that the company has a poor ability to pay short-term debt (Nofitasari, 2021).
2. X_2 ratio to calculate the level of the company's ability to utilize retained earnings for funding the company's operations. The high value of the ratio provides information that the company's financial condition is in healthy condition. The low ratio value provides information that the company's financial condition unhealthy (Nofitasari, 2021).
3. X_3 ratio to see the company's ability to generate profits on total assets owned and can be used to measure management performance in obtaining profit before tax (Nofitasari, 2021).
4. X_4 ratio to see the company's ability to pay off accounts payable with company capital. The high value of the ratio provides information that the company's financial condition is healthy and not dependent on debt. The low value of the ratio provides information that the company is in an unhealthy financial condition and is dependent on debt (Nofitasari, 2021).

The value of the modified Z-Score calculation results can be interpreted as follows:

1. $Z > 2.60$: indicates the company is in a safe condition or is not detected bankruptcy.
2. $1.10 < Z < 2.60$: indicates the company is in a gray position.
3. $Z < 1.10$: indicates the company has a high risk of bankruptcy.

RESULTS AND DISCUSSION

Table 2. Results Altman Z-Score Analysis PT Net Visi Media Tbk

Year	X_1	X_2	X_3	X_4	Z-Score	Classification
2024	0,30	(3,57)	(0,08)	1,83	(8,28)	Bankrupt
2023	(0,97)	(3,01)	(0,53)	(0,37)	(20,12)	Bankrupt
2022	0,33	(1,83)	(0,09)	(0,05)	(4,45)	Bankrupt

Source: data processed, (2025)

The results of the analysis on PT Net Visi Media Tbk show that from 2022 to 2024, the company's Z Score is less than 1.10 which indicates that the company has a high risk of bankruptcy. Z Score in 2022 amounted to -4.45, in 2023 amounted to -20.12, and in 2024 amounted to -8.28. The company is at the highest level of bankruptcy in 2023 due to a significant increase in the company's current debt, thus affecting the assessment of the X_1 ratio. Another cause of the risk of bankruptcy experienced by the company is the minus retained earnings balance in each year from 2022 to 2024.

The results of the calculation of net working capital compared to total assets, the company has a better ability to pay short-term debt in 2022 than in 2023 and 2024. In 2022 X_1 ratio value was 0.33, in 2023 it was -0.97 and in 2024 it was 0.30. From the calculation of retained earnings compared to total assets, the company has a poor ability to utilize retained earnings for funding the company's operations from 2022 to 2024. In 2022 X_2 ratio value was -1.83, in 2023 it was -3.01, and in 2024 it was 3.57. From the calculation of EBIT compared to total assets, the company has a poor ability to generate profits on total assets from 2022 to 2024. In 2022 X_3 ratio value was

-0.09, in 2023 it was -0.53, and in 2024 it was -0.08. From the calculation of the book value of equity compared to total liabilities, the company has the ability to pay off accounts payable with better company capital in 2024 than in 2023 and 2022. In 2022 X_4 ratio value was -0.05, in 2023 it was -0.37, and in 2024 it was 1.83.

Table 3. Results Altman Z-Score Analysis of PT Media Nusantara Citra Tbk

Year	X_1	X_2	X_3	X_4	Z-Score	Classification
2024	0,38	0,76	0,05	10,95	16,84	Safe zone
2023	0,38	0,78	0,06	11,34	17,33	Safe zone
2022	0,34	0,75	0,12	7,92	13,83	Safe zone

Sumber: data diolah, (2025)

The results of the analysis on PT Media Nusantara Citra Tbk show that from 2022 to 2024, the company's Z Score is more than 2.60, which indicates that the company is in a safe condition or has not been detected as experiencing bankruptcy. Z Score in 2022 amounted to 13.83, in 2023 amounted to 17.33, and in 2024 amounted to 16.84.

Based on the results of the calculation of net working capital compared to total assets, the company has the ability to pay good short-term debt from 2022 to 2024. In 2022 X_1 ratio value was 0.34, in 2023 it was 0.38 and in 2024 it was 0.38. From the calculation of retained earnings compared to total assets, the company has a good ability to utilize retained earnings for funding the company's operations from 2022 to 2024. In 2022 X_2 ratio value was 0.75, in 2023 it was 0.78, and in 2024 it was 0.76. From the calculation of EBIT compared to total assets, the company has a good ability to generate profits on total assets from 2022 to 2024. In 2022 X_3 ratio value was 0.12, in 2023 it was 0.06, and in 2024 it was 0.05. From the calculation of the book value of equity compared to total liabilities, the company has a good ability to pay off its debts with the company's capital from 2022 to 2024. In 2022 X_4 ratio value was 7.92, in 2023 it was 11.34, and in 2024 it was 10.95.

Table 4. Results Altman Z-Score Analysis of PT Surya Citra Media Tbk

Year	X_1	X_2	X_3	X_4	Z-Score	Classification
2024	0,47	0,63	0,07	3,40	9,20	Safe zone
2023	0,47	0,62	0,04	3,30	8,81	Safe zone
2022	0,50	0,63	0,10	3,68	9,87	Safe zone

Source: data processed, (2025)

The results of the analysis at PT Surya Citra Media Tbk show that from 2022 to 2024, the company's Z Score is more than 2.60, which indicates that the company is in a safe condition or has not been detected as experiencing bankruptcy. Z Score in 2022 amounted to 9.87, in 2023 amounted to 8.81, and in 2024 amounted to 9.20.

Based on the results of the calculation of net working capital compared to total assets, the company has the ability to pay good short-term debt from 2022 to 2024. In 2022 X_1 ratio value

was 0.50, in 2023 it was 0.47 and in 2024 it was 0.47. From the calculation of retained earnings compared to total assets, the company has a good ability to utilize retained earnings for funding the company's operations from 2022 to 2024. In 2022 X_2 ratio value was 0.63, in 2023 it was 0.62, and in 2024 it was 0.63. From the calculation of EBIT compared to total assets, the company has a good ability to generate profits on total assets from 2022 to 2024. In 2022 X_3 ratio value was 0.10, in 2023 it was 0.04, and in 2024 it was 0.07. From the calculation of the book value of equity compared to total liabilities, the company has a good ability to pay off its debts with the company's capital from 2022 to 2024. In 2022 X_4 ratio value was 3.68, in 2023 it was 3.30, and in 2024 it was 3.40.

Table 5. Results Altman Z-Score Analysis of PT Visi Media Asia Tbk

Year	X1	X2	X3	X4	Z-Score	Classification
2024 (Q3)	(1,24)	(1,07)	(0,00)	(0,39)	(12,05)	Bankrupt
2023	(1,25)	(1,07)	(0,43)	(0,39)	(14,95)	Bankrupt
2022	(0,75)	(0,58)	(0,19)	(0,15)	(8,25)	Bankrupt

Source: data processed, (2025)

The results of the analysis on PT Visi Media Asia Tbk show that from 2022 to Q3 2024, the company's Z Score is less than 1.10 which indicates that the company has a high risk of bankruptcy. Z Score in 2022 amounted to -8.25, in 2023 amounted to -14.95, and in 2024 amounted to -12.05. One of the reasons the company has a high risk of bankruptcy is the minus retained earnings balance in each year from 2022 to 2024.

Based on the results of the calculation of net working capital compared to total assets (X_1), the company has an unfavorable ability to pay short-term debt from 2022 to Q3 2024. In 2022 X_1 ratio value was -0.75, in 2023 it was -1.25 and in 2024 (Q3) it was -1.24. From the calculation of retained earnings compared to total assets, the company has a poor ability to utilize retained earnings for funding the company's operations from 2022 to Q3 2024. In 2022 X_2 ratio value was -0.58, in 2023 it was -1.07, and in 2024 (Q3) it was -1.07. From the calculation of EBIT compared to total assets, the company has a poor ability to generate profits on total assets from 2022 to Q3 2024. In 2022 X_3 ratio value was -0.19, in 2023 it was -0.43, and in 2024 (Q3) it was -0.0002. From the calculation of the book value of equity compared to total liabilities, the company has the ability to pay off accounts payable with unfavorable company capital from 2022 to Q3 2024. In 2022 X_4 ratio value was -0.15, in 2023 it was -0.39, and in 2024 (Q3) it was -0.39.

CONCLUSION

The modified Altman Z-Score analysis conducted on four research objects in the media and entertainment subsector for 2022-2024 provides the following results. First, there are two companies that are indicated to experience bankruptcy, namely PT Net Visi Media Tbk and PT Visi Media Asia Tbk. Second, there are two companies that are not indicated to experience bankruptcy or are in the safe zone, namely PT Media Nusantara Citra Tbk and PT Surya Citra Media Tbk. Z-Score results of PT Net Visi Media Tbk and PT Visi Media Asia Tbk since 2022-2024 are at continuous risk of bankruptcy, these results are in line with previous research by

Azizah, et al (2025) regarding the assessment of the financial performance of PT Net Visi Media Tbk in 2020-2023 using financial ratio analysis, seen from the calculation of liquidity and solvency ratios the company's performance is still below industry standards, and seen from the calculation of profitability ratios and activity ratios the company has not maximized the use of assets and equity to generate profits. In contrast to PT Media Nusantara Citra Tbk and PT Surya Citra Media Tbk, which were not detected to experience bankruptcy and were in the safe zone from 2022-2024. The modified Altman Z-Score is used to analyze the risk of bankruptcy of various types of companies go-public and non-go-public, so it's relevant in this study with the object of research in the media and entertainment industry, in line with research conducted by Tania, et al (2021) on PT Inti (Persero), and Cipta & Wibowo (2023) on shipping companies. The results of Z Score analysis in this study can be used as a basis for the management of companies that have indicated bankruptcy to prepare an improvement strategy. Suggestions for the results of this study to two companies that are indicated to experience bankruptcy, namely PT Net Visi Media Tbk and PT Visi Media Asia Tbk to improve the management system, improve strategies to obtain profits, improve strategies so that companies are not dependent on business debt, and bring up creativity and innovation in the midst of competition in the current digitalization era. It is hoped that further research will discuss the improvement of the company's management system to avoid bankruptcy.

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