

Financial Ratio Analysis and Bankruptcy Prediction in Indonesia's E-Commerce: PT GoTo Tbk Case Study

Firda Dwi Meilia¹

¹Universitas PGRI Yogyakarta
e-mail firdadwimeilia67@gmail.com

Commented [L1]:

ABSTRACT

This research aims to analyze the financial condition of PT GoTo Tbk and evaluate its bankruptcy risk by employing a comprehensive method that combines financial ratio analysis with the Altman Z-Score model. The research utilizes a quantitative descriptive method, relying on secondary data sourced from the company's financial statements for the years 2021-2024, accessible via GoTo's official website. The analysis covers financial ratios such as liquidity, solvency, profitability, and efficiency. A trend analysis is conducted to identify changes and patterns over time. Findings indicate ongoing financial losses, negative retained earnings, decreasing equity, and a Z-Score that categorizes the company in the distress zone, indicating a significant bankruptcy risk. Although the working capital is positive, underlying financial structural issues remain, necessitating prompt strategic intervention. The results highlight the values of combining traditional ratio analysis with predictive modeling to offer a more thorough assessment of a digital firm's financial health. This research provides practical insights for investors, regulators, and corporate leaders in managing risks and assessing the financial sustainability of technology-driven companies in emerging markets.

Article submission: 18 Jun 25

Article revision: 28 Jun 25

Article acceptance: 30 Jun 25

Keywords: *Altman Z-score, Financial Ratio Analysis, Bankruptcy, E-commerce.*

I. INTRODUCTION

The expansion of the digital economy has become a crucial factor in global economic growth over the last decade, particularly in Indonesia (Lubis et al., 2024). E-commerce, as part of the internet economy that includes marketplaces, online malls, and direct to consumer platforms, has significantly influenced business behavior and become one of the leading market sectors (Maulana, 2022). This assertion is supported by data from Bank Indonesia, which recorded that e-commerce transactions reached



IDR 476.3 trillion in 2022, with a volume of 3.48 million transactions (Nur'aini, 2023). The advancement of technology, along with improvements in digital infrastructure and supportive regulatory frameworks, has significantly contributed to the growth of e-commerce in Indonesia. In 2023, the number of e-commerce enterprises is projected to increase by 27.40%, reaching approximately 3.826.750 businesses, up from 2.995.986 in 2022 (Kusumatriksna et al., 2025). Digitalization has significantly facilitated interactions between buyers and sellers, enabling commerce that integrates social life into digital environments while simultaneously fostering innovation and sustained growth in the e-commerce sector (Chen & Long, 2023).

PT GoTo Tbk was established through the merger of Gojek and Tokopedia on May 17, 2021, combining the sectors of e-commerce and ride-sharing into a unified digital platform (Septiandy et al., 2024). As a technology-based enterprise, PT GoTo Tbk represents a border economic shift towards digitalization, operating under a business model that relies heavily on external funding and rapid market expansion (Widihardimas & Raharja, 2024). However, these models frequently lead to intricate and high-risk financial frameworks, creating considerable challenges in accurately assessing financial health. In this context, financial ratio analysis and bankruptcy prediction models have emerged as crucial methods for evaluating business viability and financial risk in the digital enterprise landscape (Rastika, 2022).

Financial performance represents a critical dimension of business operations, encompassing both internal and external aspects of a company. It serves as a fundamental benchmark in evaluating a firm's long-term viability and strategic effectiveness (Mufarrica & Oktafiani, 2023). Despite the rapid growth and soaring valuations often observed in technology companies, many of these firms struggle to achieve stable and sustainable financial performance. Their emphasis on aggressive market expansion and user acquisition frequently comes at the expense of long-term profitability (Damodaran, 2020). In this context, the analysis of financial performance plays a critical role in assessing whether the company's growth-oriented strategies strengthen or weaken its overall financial stability. Fundamentally, companies aim to optimize profit generation by managing a range of contributing factors, which are typically assessed through financial statement analysis. Profitability serves not only



as a measure of business performance but also as a critical indicator of managerial accountability in the effective and responsible utilization of corporate resources (Yanti & Monika, 2024).

This research focuses on PT GoTo Tbk as a relevant example to evaluate the effectiveness of an integrated analytical approach amid the dynamics of Indonesia’s e-commerce industry. The main issue in this research is the extent to which the integration between financial ratio analysis and bankruptcy prediction models can provide a comprehensive and accurate picture of the risk of bankruptcy in e-commerce companies. Most existing models were originally developed for traditional industries and may not be fully applicable to digital businesses that have yet to achieve short-term profitability (Sacha et al., 2024). This research aims to evaluate whether an integrated analytical approach is able to capture financial distress signals more precisely. The hypothesis is that the combination of financial ratios and bankruptcy prediction models can improve the accuracy of financial risk diagnosis in the e-commerce sector.

PT GoTo Tbk incurred financial losses for four consecutive years, spanning from 2021 to 2024. The data outlined below constitutes the primary information employed in this research:

Table 1 Data from the financial statements of PT GoTo Tbk

Year	Net Revenue	Net Income	Total Assets	Total Equity	Total Liabilities	Current Assets	Current Liabilities	Working Capital	EBIT	Retained Earnings
2021	4.535.764	-22.429.242	155.137.033	139.024.444	16.112.589 3	36.063.697	12.293.693	23.770.004	-22.211.302	-79.129.324
2022	11.349.167	-40.544.556	139.216.570	122.723.344	16.493.226	34.180.478	12.162.456	22.018.022	-40.544.556	-118.480.548
2023	14.785.492	-90.518.726	54.097.256	35.720.000	18.377.256	33.617.291	12.822.544	20.794.747	-90.634.418	-208.928.904
2024	15.894.462	-5.464.855	43.207.884	30.403.801	12.804.083	26.337.692	10.044.890	16.292.802	-5.275.830	-214.119.215

Source: Annual Report of PT Gojek Tokopedia Tbk

Based on the data, the company showed clear signs of significant financial distress during the 2021-2024 period, as reflected in recurring negative net income, consistently negative EBIT, a widening retained earnings deficit, and a continuous decline in equity. These conditions indicate an increasing risk to the company’s solvency and long-term sustainability if the trend of losses is not promptly reversed. Although working capital remained positive, it was not sufficient to cover the long-term structural losses. In conclusion, while total assets remain higher than total



liabilities, the observed decline in both assets and working capital should not be overlooked, as it may signal emerging financial vulnerabilities. Accordingly, the researcher seeks to conduct a more in-depth examination of the company's financial performance and evaluate the probability of bankruptcy. This effort stems from the recognition that the current data, on its own, does not provide a conclusive basis for determining whether the company is indeed bankrupt. This research builds on the findings of Hidayatullah, which revealed weak financial performance of PT Gojek Tokopedia Tbk during 2020-2023, indicated by negative ROI, ROE, and a Z-score in the distress zone. These results highlight significant bankruptcy risk and raise caution for investors (Hidayatullah, 2024). Accordingly, this research extends the analysis to the 2021-2024 period or further assesses the company's financial trajectory.

This research provides a valuable contribution to both academic and practical understandings of financial risk evaluation in the digital economy sector. By integrating financial ratio analysis with bankruptcy prediction models, it offers a more adaptive and contextually relevant assessment framework tailored to the unique characteristics of Indonesia's e-commerce firms. Martin S. Fridson and Fernando Alvarez emphasize the importance of a comprehensive approach to financial statement analysis. They encourage the combined application of financial ratios to evaluate a company's liquidity, operational efficiency, solvency, and profitability. This strategy helps analytics and financial experts to gain a complete view of the company's financial situation and overall performance (Fridson & Alvarez, 2022). To assess potential financial risk in the future, predictive models such as the Altman Z-score are essential. This model has proven effective in identifying the likelihood of bankruptcy by analyzing specific financial indicators (Rastika, 2022). Based on consideration, it can be concluded that integrating financial ratio analysis with bankruptcy prediction models provide a comprehensive assessment of a company's financial condition and future prospects.

The key contribution of this research lies in its development of an integrated and context-sensitive financial assessment framework tailored to the unique characteristics of Indonesia's technology sector. This research emphasizes the importance of developing adaptive financial evaluation models in response to rising



financial uncertainty within emerging digital markets. It aims to conduct a comprehensive financial analysis of PT GoTo Tbk by integrating financial ratio analysis with bankruptcy forecasting using the Altman Z-score model. It seeks to provide practical insights for decision makers in technology firms and regulatory institutions, while simultaneously contributing to the academic discourse on financial analysis and corporate risk assessment. The findings are expected to serve as a foundation for a more holistic and contextually relevant financial evaluation framework applicable, not only for GoTo but also to other technology-based companies in emerging markets.

II. LITERATURE REVIEW

Theoretical Perspective

This research is conceptually based grounded in signaling theory, which posits that financial information, specifically ratios derived from financial statements, acts as a communication tool that conveys a firm's financial position and potential risks to external stakeholders (Komara et al., 2020). Developed by Michael Spence in 1973, signaling theory outlines how organizations communicate key information to stakeholders by utilizing financial disclosure as indicators of their internal conditions (Amanda et al., 2019). In high certainty industries like e-commerce, these indicators are crucial for evaluating a company's operational stability and long-term viability (Laudon & Traver, 2021). The Altman Z-Score model, which integrates multiple financial ratios to assess bankruptcy risk, can be considered a comprehensive financial indicator that represents the overall risk profile of the company. Therefore, signaling theory presents a robust conceptual framework for interpreting financial information as a strategic mechanism for assessing risk and facilitating communication with stakeholders.

Financial Ratio Analysis

Financial ratio analysis is a quantitative method used to assess the financial information presented in a company's financial statements. It serves as a tool to evaluate various dimensions of a firm's operations financial performance, including efficiency, liquidity, profitability, and solvency (Muthumanis et al., 2025). This analysis helps financial analysts better understand a company's overall financial



condition. Interpreting raw figures from the balance sheet and income statement alone often makes it difficult to gain a clear picture of the firm's financial health (Jubaedah & Octavia, 2019). The following section outlines the key types of financial ratios used in this research:

a. Liquidity Ratios

Liquidity ratios measure a company's ability to meet its short-term obligations (Agit et al., 2023). These ratios serve as key financial indicators, reflecting how well PT GoTo Tbk can fund its day-to-day operations and settle both its short- and long-term liabilities (Putri & Harun, 2022). Liquidity is considered critical, as a failure to meet short term financial commitments may lead to corporate insolvency or bankruptcy (Qomariyah et al., 2022).

b. Solvency Ratios

Solvency ratios reflect a company's ability to meet its long-term obligations, or to settle its liabilities in the event of liquidation (Arsita, 2021). These ratios are derived primarily from balance sheet data and can be assessed across different operational periods (Arham et al., 2023). Overall, solvency analysis provides insights into a firm's capacity to manage long-term debt and indicates the extent to which debt contributes to its capital structure (Urifah et al., 2024).

c. Profitability Ratios

Profitability ratios measure a company's ability to generate earnings relative to its capital (Simanullang & Rahmadany Chandra, 2021). These ratios are used to evaluate the firm's capacity to earn profits over a specific period. Moreover, they serve as indicators of managerial efficiency, as reflected in the profits derived from sales or investment returns (Dewi et al., 2020).

d. Efficiency Ratios

Efficiency ratios evaluate the extent to which a company leverages its assets to enhance operational performance (Dewi et al., 2020). These ratios provide insight into how much expenditure is incurred in relation to the revenue generated (Hadinata et al., 2024).

The Role of Financial Ratios in E-commerce



Financial ratio analysis is a tool that is often applied because it is able to reveal important relationships between items in financial statements (Quraisy et al., 2025). E-commerce as a technology-based sector requires an analytical approach to evaluate financial performance. One of them is through financial ratio analysis which is used to assess the company's ability to meet its short-term obligations (Santoso & Friya, 2023). E-commerce makes a positive contribution to companies and the economy, both at the macro level through increased distribution efficiency and encouragement of innovation, and at the micro level through easy access to information, expansion of marketing opportunities, and increased income (Salsabila & Nasution, 2024). Based on this definition, e-commerce can be defined as the use of electronic technology such as the internet or computer networks, in the distribution, purchasing, sales, and marketing activities of products and services (Akbar et al., 2021).

E-commerce industry managers must identify the most relevant financial ratios to effectively forecast financial performance and support decision making processes. Empirical studies suggest that when accounting data is incorporated into financial analysis, it can offer significant insights into a company's past and present performance, along with its future potential. This information serves as a critical resource for stakeholders in assessing business sustainability and strategic direction (Savic, 2024). In light of these considerations, it can be concluded that financial ratio analysis is essential for e-commerce firms, as it provides valuable insight into financial performance, supports strategic decision-making, and helps identify areas for improvement.

Altman Z-Score as a Bankruptcy Prediction Method

Bankruptcy prediction has become an area of study that has attracted increasing attention in the business community, particularly since the financial scandals of the early 2000s and the post-2008 global financial crisis. These events prompted a significant surge in the number of studies related to bankruptcy prediction, making it one of the most important topics in the study of management and corporate finance (Fasano et al., 2024). A variety of financial analysis models have been formulated into identify and forecast potential bankruptcy. Notably, the Altman Z-Score model is among the most esteemed and frequently employed instruments for



assessing company's financial health (Baskoro & Lestari, 2024). Research conducted by Edward I. Altman aims to identify the similarity of financial ratios commonly used in predicting bankruptcy in various countries that are the object of study. The bankruptcy analysis model (Z-score) is a method used to project the possibility of bankruptcy of a company, by calculating a number of financial ratios which are then processed through a discriminant equation (Mastuti et al., 2021).

Since Altman introduced the bankruptcy prediction model in 1968, many studies have focused on learning how to predict financial problems in companies. Generally, researchers use bankruptcy as a boundary to distinguish between failing and surviving companies (Shi & Li, 2019). The model is shown to have strong predictive ability in estimating the likelihood of bankruptcy up to two years in advance, using Z-score values on key indicators of the company's financial condition (Tung & Phung, 2019).

III. METHODS

This research uses a quantitative method with a descriptive approach, and uses secondary data sources, in the form of financial reports on PT GoTo Tbk for the 2021-2024 period published on the company's official website, namely Investor Relations | GoTo (gotocompany.com). The analytical framework consists of two primary components. First, descriptive statistical analysis, including comparative time-series analysis, is employed to examine key financial ratios that reflect the company's liquidity, solvency, profitability, and efficiency over a certain period. Here, financial ratios function as analytical variables, while the method of analysis focused on trend identification over time to detect patterns of improvement or deterioration in the company's financial condition. Second, the Altman Z-Score model is applied to estimate the company's potential risk of bankruptcy. While this model was originally developed for manufacturing firms, it is adapted here with a critical understanding of its limitation in the context of digital enterprises. Given the asset-light structure and volatile revenue models of tech-based companies like PT GoTo Tbk, the Z-Score results are interpreted with caution and positioned as indicative rather than absolute predictors. This dual-approach provides a structured yet adaptable financial assessment suitable for technology firms operating in emerging markets.



The Altman Z-Score model has evolved through three significant stages. Initially introduced in 1968, it was limited to manufacturing firm listed on the stock exchange. In 1983, a revision enabled its application to both publicly and privately held manufacturing companies. A further modification in 1995 extended the model’s relevance to a broader range of industries, regardless of their ownership structure (Tania et al., 2021). Accordingly, this research utilized the revised Altman Z-Score model, which has been adapted for use in industries beyond the manufacturing sector.

This study does not use regression or inferential statistics, as the primary aim is to explore financial patterns and early warning signs of distress rather than to test hypotheses or build predictive models. Trend analysis is conducted to identify changes and patterns in financial ratios and Z-Score over time. The financial ratios used in this study are as follows:

Table 2 Ratio Analysis

Indicators	Measurement	Scale
Liquidity	$Current\ Ratio = \frac{Current\ Assets}{Current\ Liabilities}$	Ratio
	$Working\ Capital = Current\ Assets - Current\ Liabilities$	Ratio
Solvency	$Debt\ Ratio = \frac{Total\ Liabilities}{Total\ Assets}$	Ratio
	$DER = \frac{Total\ Liabilities}{Total\ shareholders\ Equity}$	Ratio
Profitability	$NPM = \frac{Net\ Profit}{Net\ Income} \times 100\%$	Ratio
	$EBIT\ Margin = \frac{EBIT}{Net\ Income} \times 100\%$	Ratio
Efficiency	$TATO = \frac{Net\ Income}{Total\ Asset}$	Ratio

Source: Author 2025

Altman Z-score

$$Z\text{-score} = 6,56 X_1 + 3,26 X_2 + 6,72 X_3 + 1,05 X_4$$

The components of the Z-score formula are as follows:

- X_1 = Working Capital / Total Assets
- X_2 = Retained Earnings / Total Assets
- X_3 = EBIT (Earnings Before Interest and Taxes) / Total Assets
- X_4 = Book Value of Equity / Total Liabilities

Altman established the following thresholds for the Z-score (Aadilah et al., 2022):

- If $Z > 2.60$, the company is considered safe from bankruptcy risk.
- If $1.1 < Z < 2.6$, the company is potentially at risk of bankruptcy and is generally considered to be in the "grey area."



If $Z < 1.1$, the company has a very high potential for bankruptcy and this zone is typically referred to as the "distress zone."

IV. RESULTS

Utilizing data sourced from the annual reports of PT GoTo Tbk for the period 2021-2024, the researcher conducted calculations to evaluate the company's financial performance and assess its bankruptcy risk. This analysis was carried out using financial ratio analysis and Altman Z-score model. The result and discussion are presented as follows:

Liquidity Ratios:

Current Ratio (CR)

Current Ratio Calculations for 2021-2024 are shown in the table below:

Table 3 Current Ratio

Years	Current Assets	Current Liabilities	Current Ratio	Average
2021	36.063.697	12.293.693	2.93	2.75
2022	34.180.478	12.162.456	2.81	
2023	33.617.291	12.822.544	2.62	
2024	26.337.692	10.044.890	2.62	

Source: author 2025

Current ratio

The current ratio is a key indicator of a company's liquidity, reflecting its ability to meet short-term obligations using its current assets.

Interpretation of Current Ratio Values:

- ≥ 2.0 : Generally considered favorable, indicating strong liquidity.
- 1.5-2.0: Reasonably healthy, suggesting adequate liquidity.
- 1.0-1.5: Marginally acceptable, but liquidity should be monitored closely.
- < 1.0 : Potentially problematic, indicating possible difficulties in fulfilling short-term obligations.

Based on the data for the period 2021-2024, the company's current ratio consistently exceeded 2.6, signifying strong liquidity. However, a slight downward trend was observed over the period, although the decline was not significant. The average current ratio during this timeframe was 2.74, indicating that the company generally maintained a healthy liquidity position throughout the analyzed period.



Working Capital

Working Calculations for 2021-2024 are shown in the table below:

Table 4 Working Capital

Years	Working Capital
2021	23.770.004
2022	22.018.022
2023	20.794.747
2024	16.292.802

Source: author 2025

Working capital is defined as the difference between a company’s current assets and current liabilities, serving as a crucial measure of operational liquidity and the term ability to fulfill short-term obligations. A positive working capital indicates that the company has enough current assets to manage its short-term liabilities and sustain daily operation.

During the period 2021-2024 the company’s working capital exhibited a declining trend. This downward movement may raise concerns, as it implies potential challenges in sustaining liquidity and financing operational needs in the future. Nevertheless, the average working capital over the period stood at IDR 20.718.893.75, indicating that the company generally maintained a positive working capital position, although the observed decline merits further attention.

Solvability Ratios:

Debt Ratio

Debt Ratio calculations for 2021-2024 are shown in the table below:

Table 5 Debt Ratio

Years	Total Liabilities	Total Assets	Debt Ratio	Average
2021	16.112.589,3	155.137.033	0.53	0.55
2022	16.493.226	139.216.570	0.56	
2023	18.377.256	54.097.256	0.56	
2024	12.804.083	43.207.884	0.58	

Source: author 2025

The table above presents the Debt Ratio of PT GoTo Tbk for period 2021-2024. This ratio reflects the proportion of total liabilities to total assets, offering a perspective



on the company’s financial leverage and overall solvency. Throughout the observed period, the Debt Ratio exhibited an upward trend, suggesting an increasing dependence on debt to finance the company’s operations.

Debt to Equity Ratio (DER)

Debt to Equity Ratio calculations for 2021-2024 are shown in the table below:

Tabel 6 DER

Years	Total Liabilities	Total Equity	DER	Average
2021	16.112.589,3	139.024.444	0.12	0.295
2022	16.493.226	122.723.344	0.13	
2023	18.377.256	35.720.000	0.51	
2024	12.804.083	30.403.801	0.42	

Source: author 2025

Debt to Equity Ratio (DER) is a financial metric that compares a company’s total debt to its shareholders’ equity. It reflects how much the company depends on debt to finance its operations.

DER Interpretation:

- Low DER (below 1.0): Indicates that the company has more equity than debt. This is generally seen as safer, as the company relies more on its own capital to meet its obligations.
- High DER (above 1.0): Suggests that the company has more debt than equity, which can be riskier due to higher reliance on borrowed funds.

In 2021 and 2022, the company’s DER was very low (0.12 and 0.13), indicating a conservative financial structure with minimal use of debt and a heavy reliance on equity financing. In 2023, the DER increased to 0.51, suggesting greater use of debt. Although it slightly declined to 0.42 in 2024, it remained higher than in the earlier years. The average DER over the 2021-2024 period was 0.295, showing that the company maintained a low debt level relative to equity throughout the period.

Profitability Ratios:

NPM (Net Profit Margin)

NPM (Net Profit Margin) calculations for 2021-2024 are shown in the table below:

Table 7 NPM

Year	Net Revenue	Net Income	NPM	Average
------	-------------	------------	-----	---------



2021	4.535.764	-22.429.242	-494.5%	
2022	11.349.167	-40.544.556	-357.2%	
2023	14.785.492	-90.518.726	-612.2%	-374.58%
2024	15.894.462	-5.464.855	-34.4%	

Source: author 2025

The analysis indicates a persistent trend of negative net profit margins, reflecting continuous financial losses over the observed period. Although the company succeeded in narrowing its losses in 2024 compared to the significant deficits recorded in 2023, it still failed to reach a break-even point. The ongoing negative profitability highlights serious financial challenges that warrant further analysis to identify the root causes of these sustained losses.

EBIT Margin

EBIT Margin calculations for 2021-2024 are shown in the table below:

Table 8 EBIT

Years	EBIT	Net Revenue	EBIT Margin (%)	Average
2021	-22.211.302	4.535.764	-489.7	
2022	-40.544.556	11.349.167	-357.2	
2023	-90.634.418	14.785.492	-612.9	-373.3
2024	-5.275.830	15.894.462	-33.2	

Source: author 2025

A negative EBIT Margin indicates that the company incurred operating losses, meaning that after deducting operating expenses from revenue, it still generated a loss prior to interest and tax considerations. Between 2021 and 2023, the EBIT Margin declined further into negative territory, suggesting a worsening trend in operational performance. This deterioration may be attributed to several factors, such as declining sales revenue, rising production costs, or a combination of both. Although the EBIT Margin remained negative in 2024, it exhibited a notable improvement, implying that the company may have implemented measures to mitigate its operating losses. Over the 2021-2024 period, the average EBIT Margin stood at -373.3%, underscoring the company's persistent and substantial operating losses throughout the analysis period.

Efficiency Ratios

Asset Turnover Ratios (TATO)

Asset Turnover Ratios (TATO) for 2021-2024 are shown in the table below:



Table 9 TATO

Years	Net Revenue	Total Aset	TATO	Average
2021	4.535.764	155.137.033	0.029	0.188
2022	11.349.167	139.216.570	0.082	
2023	14.785.492	54.097.256	0.273	
2024	15.894.462	43.207.884	0.368	

Source: author 2025

The data indicates that the company’s Total Assets Turnover (TATO) experienced a notable rise from 2021-2024, implying enhanced effectiveness in the utilization of its assets for revenue generation. This rise may be linked to a reduction in total assets especially in 2023 and 2024 alongside higher net revenue. The Average TATO over the 2021-2024 period was 0.188, reflecting a moderate level of asset utilization efficiency throughout the observed years.

Altman Z-score Analysis

The subsequent analysis shows the Altman Z-score result based on secondary data from PT GoTo Tbk for the period 2021-2024, with the aim of assessing the company’s financial condition and potential risk of bankruptcy.

Annual calculation of $X_1, X_2, X_3, X_4,$ and X_5 indicators:

Table 10 Z-score

Years	X_1	X_2	X_3	X_4	X_5
2021	0.153	-0.51	-0.143	8.63	0.029
2022	0.159	-0.851	-0.291	7.44	0.082
2023	0.384	-3.862	-1.675	1.94	0.273
2024	0.377	-4.956	-0.122	2.37	0.368

Source: author 2025

The Z-scores for the 2021-2024 are presented in the table below:

Table 11 Z-score 2

Tahun	Z-score
2021	5.42
2022	4.01



2023	-1.66
2024	-1.41

Source: author 2025

Z-score interpretation:

- $Z > 2.99$: Safe Zone – Indicates a low probability of bankruptcy.
- $1.81 < Z < 2.99$: Gray Zone – signal financial uncertainty and requires further attention.
- $Z < 1.81$: Distress Zone – Suggests a high probability of bankruptcy.

Altman Analysis

Table 12 Altman Analysis

Years	Z1	Z2	Z3	Z4	Z5	Z-score	Interpretation
2021	0.184	-0.714	-0.472	5.18	0.029	5.42	Safe Zone
2022	0.191	-1.191	-0.96	4.46	0.082	4.01	Safe Zone
2023	0.461	-5.407	-5.528	1.16	0.273	-1.66	Distress Zone
2024	0.452	-6.938	-0.403	1.42	0.368	-1.41	Distress Zone

Source: author 2025

Detailed interpretation:

2021 and 2022 – Safe Zone

- The high Z-scores of 5.42 (2021) and 4.01 (2022) suggest that the company was in strong financial condition with a low risk of bankruptcy.
- Positive working capital (X_1) and substantial total equity (X_4) were the main contributors to the favorable Z-score.
- Nevertheless, negative retained earnings (X_2) and negative EBIT (X_3) slightly offset the overall score.

2023 and 2024 – Distress Zone

- The significantly low Z-score of -1.66 (2023) and -1.41 (2024) indicate severe financial distress and a heightened risk of bankruptcy.
- The primary factors driving the low scores were deeply negative retained earnings (X_2) and negative EBIT (X_3)
- A notable decline in total equity (X_4) further exacerbated the situation.



- Although there were increases in working capital (X_1) and net revenue (X_5), these improvements were insufficient to counterbalance the negative impact of other variables.

The results of the Altman Z-Score analysis indicate a significant deterioration in the financial health of the company, characterized by a shift from the Safe Zone during 2021-2022 to the Distress Zone in 2023-2024. This decline was primarily driven by substantial operational losses, a reduction in equity, and an increasing dependence on debt financing. Such financial strains raise substantial concerns regarding the long-term sustainability of the company's business model, particularly in the context of fluctuating revenue and the continuous escalation of financial obligations.

This trend highlights a pervasive challenge faced by digital enterprises that operate under asset-light structures and pursue aggressive growth strategies, which often render them more susceptible to financial risk in the absence of stable cash flow. The current financial condition of the company underscores the urgent need for a comprehensive strategic review, potentially involving enhancements in cost management, the acquisition of the new capital, or the diversification of revenue streams. Absent timely and effective interventions, such as debt restructuring or improvements in operational efficiency, the risk of insolvency may further escalate.

V. CONCLUSION AND SUGGESTION

This research aimed to evaluate the financial health and bankruptcy risk of PT GoTo Tbk from 2021 to 2024 by applying financial ratio analysis and the Altman Z-Score model. The result indicated a significant and ongoing decline in the company's financial stability throughout this period. Initially, PT GoTo Tbk demonstrated adequate liquidity and minimal debt exposure. However, the company later encountered serious operational inefficiencies, such as high operating expenses relative to revenue, decreasing cross margins, and underutilization of digital infrastructure. These inefficiencies, combined with persistent net losses and increasing debt reliance, led to a decline in financial stability, placing the firm in the Distress Zone of the Altman Z-Score model by 2023-2024.



The findings highlight the importance of integrated financial analysis for identifying early warning signs of financial distress, allowing stakeholders to proactively address potential risks. Specifically, insight regarding high operational costs and declining margins can guide management in formulating affective turnaround strategies, including cost restructuring, optimizing core operations, reallocating underperforming assets, and diversifying revenue streams to enhance financial resilience.

Future research could adopt a comparative approach by examining firms with similar business models in the e-commerce or digital platform sector. For example, researchers might analyze variables such as asset turnover, operating margin, and return on equity (ROE) using panel data analysis to benchmark performance across the industry. Additionally, qualitative methods like interviews with key management personnel could uncover strategic misalignments that quantitative metrics alone may not capture. Expanding the study period include post-2024 financial data would also facilitate a more comprehensive evaluation of the effectiveness of any corrective actions implemented during the distress phase.

Overall, this research contributes to the ongoing discourse on bankruptcy forecasting in the digital economy and provide actionable insight for business practitioners, investors, and policymakers. By focusing on the specific financial and managerial challenges identified, the findings can better inform decision-making and guide strategies to strengthen financial sustainability in technology-driven industries

BIBLIOGRAPHY

- Agit, A., Paryati, R., Nuansari, S. D., Aryandika, A. A., Adif, R. M., Nurmala, Nugrahani, W. P., Amos, V., Rini, A. N., Citradewi, A., Burhanuddin, Kurniawati, F., Sapiri, M., & Hasanatina, F. H. (2023). *Manajemen keuangan bisnis* (L. Mutmainah, Ed.). PT Penamuda Media.
- Akbar, Diana, N., & Afifudin. (2021). Analisis kinerja keuangan perusahaan sebelum dan sesudah penerapan e-commerce (Studi pada perusahaan sub sector retail trade dalam Index Saham Syariah Indonesia (ISSI) di Bursa Efek Indonesia. *E-JRA*, 10.
- Amanda, L. A., Efrianti, D., & Marpaung, B. S. (2019). Analisis pengaruh kandungan informasi komponen laba dan rugi terhadap koefisien respon laba (ERC) studi empiris pada perusahaan manufaktur sektor industri dasar dan kimia yang terdaftar di Bursa Efek Indonesia (BEI). *Jurnal Ilmiah Akuntansi*, 7, 188–00. www.idx.co.id



- Arham, Arfianty, & Amanda. (2023). Analisis rasio solvabilitas terhadap kinerja keuangan yang terdaftar di Bursa Efek Indonesia (BEI). *Konferensi Ilmiah Akuntansi*. www.idx.co.id
- Arsita, Y. (2021). Analisis rasio keuangan untuk mengukur kinerja keuangan PT Sentul City, Tbk. *Jurnal Manajemen Pendidikan Dan Ilmu Sosial*, 2(1). <https://doi.org/10.38035/jmpis.v2i1>
- Baskoro, S. I., & Lestari, F. W. (2024). Bankruptcy prediction analysis using the Altman Z-Score model of toll road service providers in Indonesia. *GEMA: Jurnal Gentiaras Manajemen Dan Akuntansi*, 16(2), 153–165. <https://doi.org/10.47768/gema.v16i2.202404>
- Chen, X., & Long, Z. (2023). E-commerce enterprises financial risk prediction based on FA-PSO-LSTM neural network deep learning model. *Sustainability (Switzerland)*, 15(7). <https://doi.org/10.3390/su15075882>
- Damodaran, A. (2020). *Narrative and numbers; the value of stories in business*. Columbia University Press.
- Dewi, I. G. A. A., Gunadi, I. G. N. B., & Suarjana, I. W. (2020). Pengaruh rasio pasar dan rasio profitabilitas terhadap return saham pada perusahaan perbankan yang terdaftar di Bursa Efek Indonesia. *Values*.
- Fasano, F., Adornetto, C., Zahid, I., La Rocca, M., Montaleone, L., Greco, G., & Cariola, A. (2024). The dilemma of accuracy in bankruptcy prediction: a new approach using explainable AI techniques to predict corporate crises. *European Journal of Innovation Management*, 28(11), 1–22. <https://doi.org/10.1108/EJIM-06-2024-0633>
- Fridson, M. S., & Alvarez, F. (2022). *Financial statement analysis: a practitioners guide*. Wiley Finance Series.
- Hadinata, D. F., Sitompul, F. M., Nainggolan, F. E., & Tambunan, N. N. T. (2024). Analisis rasio efektivitas dan rasio efisiensi keuangan untuk mengukur kinerja keuangan pemerintah daerah kota Pematang Siantar. *Jurnal Ilmiah Ekonomi Dan Manajemen*, 2, 496–502. <https://doi.org/https://doi.org/10.61722/jiem.v2i2.993>
- Hidayatullah, F. (2024). Analyze financial performance and predict bankruptcy using the Du Pont and Altman Z-Score on PT Gojek Tokopedia Tbk Period 2020 - 2023. *JPEK (Jurnal Pendidikan Ekonomi Dan Kewirausahaan)*. <https://doi.org/10.29408/jpek.v8i3.28536>
- Jubaedah, & Octavia, E. (2019). Peranan analisis rasio keuangan untuk mengukur kinerja keuangan dalam permohonan kredit pada PT. PINDAD (Persero) Bandung. *Jurnal Akuntansi Bisnis Dan Ekonomi*.
- Komara, A., Ghozali, I., & Januarti, I. (2020). *Examining the Firm Value Based on Signaling Theory*.
- Kusumatriana, A. L., Hasyati, A. N., Pravitasari, C., Sutarsih, T., & Wulandari, V. C. (2025). *Statistik E-Commerce 2023* (A. L. Kusumatriana, A. N. Hasyati, C. Pravitasari, T. Sutarsih, V. C. Wulandari, & S. Kautsar, Eds.). Badan Pusat Statistik. <https://www.bps.go.id/>
- Laudon, K., & Traver, C. (2021). *E-Commerce 2021-2022*. Global Edition.
- Lubis, N., Harahap, A. Y., Tantawi, R., Aslami, N., & Sitanggang, T. N. (2024). Dampak perkembangan ekonomi digital terhadap pertumbuhan sektor e-commerce di Indonesia: perspektif teknologi, konsumen, dan regulasi. *Jurnal Penelitian Ekonomi Akuntansi*, 8, 348–359.
- Mastuti, F., Saifi, M., & Azizah, D. F. (2021). Altman Z-score sebagai salah satu metode dalam menganalisis estimasi kebangkrutan perusahaan (studi pada perusahaan plastik dan kemasan yang terdaftar (listing) di Bursa Efek Indonesia periode tahun 2010 sampai dengan 2012). *Universitas Brawijaya*. www.okezone.com



- Maulana, P. (2022). Kegagalan layanan e-commerce dan perubahan pengalaman pada perilaku beralih konsumen. *Universitas Gadjah Mada*.
- Mufarrica, I., & Oktafiani, F. (2023). A review of PT GoTo Tbk financial performance before and after the merger. *Jurnal Ekonomi*. <http://ejournal.seaninstitute.or.id/index.php/Ekonomi>
- Muthumanis, Senthilnathan, N., & M, S. (2025). A study on financial analysis of kamarajar port limited using ratio analysis. *Social Science Research Network*.
- Nur'aini, S. (2023). Peningkatan perekonomian Indonesia melalui e-commerce. *Jurnal Andromeda*, 1(1), 1–10.
- Putri, S. K., & Harun, E. (2022). Analisis laporan keuangan sebagai bukti pengukuran kinerja pada PT GoTo Gojek Tokopedia Tbk tahun 2021. *Jurnal Ilmiah Akuntansi Keuangan Dan Bisnis*.
- Qomariyah, S. N., Afifah, N. N., & Citradewi, A. (2022). Analisis rasio likuiditas untuk menilai kinerja keuangan PT. Kimia farma (Persero) Tbk periode 2019-2021. *Journal Islamic Accounting Competency*, 2(2), 1–13.
- Quraisy, M. A. D. A., Prastyowati, A. H., & Nurshadrina, K. S. (2025). Peran rasio keuangan dalam memprediksi perubahan laba pada perusahaan manufaktur 2019-2023. *Jurnal Akuntansi Dan Manajemen Keuangan*, 6. www.idx.co.id
- Rastika, D. M. (2022). Analisis rasio keuangan dan prediksi kebangkrutan dengan model Altman Z-Score pada perusahaan semen tahun 2016-2019. *Jurnal Keuangan Negara Dan Kebijakan Publik*, 2.
- Sacha, S., Wardani, F. P., Krismayanti, Y., Fauziah, F., Krisnadi, T. W., Nauvaldy, D., Suherman, T., & Tangkudung, A. G. D. (2024). Business model evolution: from traditional to digital transformation. *Jurnal Multidisiplin Madani*, 4(7), 1017–1029. <https://doi.org/10.55927/mudima.v4i7.10085>
- Salsabila, H., & Nasution, I. P. (2024). Analisis Dampak Regulasi Privasi Data terhadap Manajemen Keamanan Data di Sektor Bisnis. *Jurnal Multidisiplin Sainstek*, 3. <https://ejournal.warunayama.org/kohesi>
- Santoso, M. R. I., & Friya, Y. (2023). Analisis laporan keuangan untuk menilai kinerja keuangan pada PT Bukalapak Tbk dan PT GoTo Gojek Tokopedia periode 2021-2022. *Prosiding Seminar Nasional Akuntansi Dan Manajemen*, 3.
- Savic, B. (2024). *Book of proceedings* (B. Savic, Ed.). Conference of Academies for Applied Studies in Serbia (CAASS).
- Septiandy, Mhd. D., Hamim, N., & Nurbaiti. (2024). Analisis perkembangan tokopedia dan gojek pasca merger sebagai GoTo dan kolaborasinya dengan Tiktok terhadap perekonomian. *Jurnal Penelitian Manajemen Dan Inovasi Riset*, 2(2), 14–20. <https://doi.org/10.61132/lokawati.v2i2.632>
- Shi, Y., & Li, X. (2019). An overview of bankruptcy prediction models for corporate firms: A systematic literature review. *Intangible Capital*, 15(2), 114–127. <https://doi.org/10.3926/ic.1354>
- Simanullang, R., & Rahmadany Chandra, D. (2021). Analisis rasio profitabilitas dan rasio likuiditas terhadap kinerja keuangan pada perusahaan manufaktur sub sektor food & beverages yang terdaftar di Bursa Efek Indonesia periode 2016-2020. *Jurnal Kewirausahaan, Akuntansi, Dan Manajemen*, 3(2).
- Tania, S., Pratiwi, L. N., & Laksana, B. (2021). Prediksi kebangkrutan menggunakan metode Altman Z-Score Modifikasi pada PT Inti (Persero). *Indonesian Journal of Economics and Management*, 1(3), 628–633.
- Tung, D. T., & Phung, V. T. H. (2019). An application of Altman Z-score model to analyze the bankruptcy risk: Cases of multidisciplinary enterprises in Vietnam. In *Investment*



Management and Financial Innovations (Vol. 16, Issue 4, pp. 181–191). LLC CPC Business Perspectives. [https://doi.org/10.21511/imfi.16\(4\).2019.16](https://doi.org/10.21511/imfi.16(4).2019.16)

Urifah, I., Sari, P. K., Adiba, A. F., & Oktafia, R. (2024). Analisis rasio solvabilitas (DAR, DER, CAR, LTDER, LTDAR) dalam menilai kinerja keuangan pada PT Bank Central Asia Tbk tahun 2019-2022. *Jurnal Ekonomi, Bisnis Dan Manajemen*.

Widihardimas, T. J., & Raharja, S. (2024). Motives for acquisition through financial performance: PT Goto Gojek Tokopedia Tbk. *Jurnal Ekonomi Dan Bisnis*, 27(Oktober), 103–124.

Yanti, V. Y., & Monika, M. (2024). Pengaruh profitabilitas, good corporate governance, dan struktur modal terhadap nilai perusahaan. *Jurnal Muhammadiyah Manajemen Bisnis*, 5(1), 39. <https://doi.org/10.24853/jmmb.5.1.39-48>

TURNITIN

Financial Ratio Analysis and Bankruptcy Prediction in Indonesia's E-Commerce: PT GoTo Tbk Case Study

Firda Dwi Maulia
Universitas PGRI Yogyakarta
firda.dwi.maulia@upgri.ac.id

This research aims to analyze the financial condition of PT GoTo Tbk and evaluate its bankruptcy risk by employing a comprehensive method that combines financial ratio analysis with the Altman Z-Score model. The research utilizes a quantitative descriptive method, relying on secondary data sourced from the company's financial statements for the years 2021-2024, accessible via GoTo's official website. The analysis covers financial ratios such as liquidity, solvency, profitability, and efficiency. A trend analysis is conducted to identify changes and patterns over time. Findings indicate ongoing financial losses, negative retained earnings, increasing equity, and a Z-Score that

Article submission: 08 Aug 25
Article revision:
Article expiration:

Turnitin Draft Check

15%
Overall Similarity
Last checked: 08-08-2025 09:58

What should I do with my score?

1	isnercapital.com	2%
2	repository.psi.ac.id	2%
3	www.coursehero.com	1%

You can run 2 more similarity checks.

Run New Similarity Check
View Full Report

How should I use these checks?



