



IMPROVING ANALYSIS OF FINANCIAL DISTRESS USING THE SPRINGATE SCORE METHOD AT PT PERTAMINA PATRA NIAGA PERIOD 2019–2023

ANALISIS FINANCIAL DISTRESS DENGAN METODE SPRINGATE SCORE PADA PT PERTAMINA PATRA NIAGA PERIODE 2019–2023

Salmi Qauly K. Pakaya^{1*}, Sahmin Noholo², Muliyani Mahmud³

^{1*}Gorontalo State University, Email: salmiqauly@gmail.com

²Gorontalo State University, Email: sahminnoholo@ung.ac.id

³Gorontalo State University, Email: muliyanimahmud@ung.ac.id

*email koresponden: : salmiqauly@gmail.com

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Abstract

This study aims to analyze the financial distress condition of PT Pertamina Patra Niaga during 2019–2023 using the Springate Score (S-Score) model. Financial distress is a critical stage preceding potential bankruptcy, commonly detected through declining liquidity, profitability, and operational capability. This study employed a quantitative descriptive approach using secondary data sourced from audited financial statements. The Springate model, consisting of four key ratios (working capital to total assets, EBIT to total assets, EBT to current liabilities, and sales to total assets), was applied to evaluate the company's financial stability. The results show fluctuating financial performance. PT Pertamina Patra Niaga was categorized as financially healthy (safe zone) in 2019, 2020, 2021, and 2023, but experienced financial distress in 2022 due to severe liquidity pressure and increased short-term liabilities. The overall average S-Score of 0.9453 places the company in the grey area, indicating potential vulnerability to financial instability. The findings highlight the importance of improving liquidity management, strengthening working capital, and increasing operational efficiency to prevent future distress. Distress dengan Metode Springate Score pada PT Pertamina Patra Niaga Periode 2019–2023.

Keywords : Financial distress, Springate Score, PT Pertamina Patra Niaga, financial analysis.

Abstrak

Penelitian ini bertujuan untuk menganalisis kondisi financial distress pada PT Pertamina Patra Niaga periode 2019–2023 menggunakan model Springate Score (S-Score). Financial distress merupakan kondisi kritis sebelum terjadinya kebangkrutan yang dapat terdeteksi melalui penurunan likuiditas, profitabilitas, dan kemampuan operasional perusahaan. Penelitian ini menggunakan pendekatan deskriptif kuantitatif dengan data sekunder berupa laporan keuangan auditan. Model Springate yang terdiri dari empat rasio utama (modal kerja terhadap total aset, EBIT terhadap total aset, EBT terhadap kewajiban lancar, serta penjualan terhadap total aset) digunakan untuk menilai stabilitas keuangan perusahaan. Hasil penelitian menunjukkan bahwa PT Pertamina Patra Niaga berada pada kategori sehat (safe zone) pada tahun 2019, 2020, 2021, dan 2023, namun mengalami financial distress pada tahun 2022 akibat tekanan likuiditas dan peningkatan signifikan kewajiban jangka pendek. Rata-rata nilai S-



Score sebesar 0,9453 menempatkan perusahaan pada kategori grey area yang menandakan kerentanan terhadap ketidakstabilan keuangan. Temuan ini mengindikasikan perlunya perbaikan pengelolaan likuiditas, penguatan modal kerja, serta peningkatan efisiensi operasional untuk mencegah distress di masa mendatang.

Kata Kunci : Financial distress, Springate Score, PT Pertamina Patra Niaga.

1. INTRODUCTION

BUMN play a crucial role in Indonesia's national economic structure, particularly in strategic sectors such as energy. PT Pertamina Patra Niaga, a subholding of PT Pertamina, is responsible for ensuring national energy distribution and thus faces substantial financial and operational pressures. Global oil price volatility, the transition toward renewable energy, the aftermath of the Covid-19 pandemic, and increasing short-term liabilities create significant risks that may lead to financial distress.

Prior studies emphasize that financial distress is not solely influenced by profit fluctuations but also by structural financial factors such as liquidity, solvency, cash flow stability, and asset efficiency (Nur Tiyas et al., 2023; Abdurahman et al., 2023). Therefore, predictive models such as the Springate Score are widely used due to their ability to detect early signals of financial deterioration.

PT Pertamina Patra Niaga was selected as the research object because of its strategic function in Indonesia's energy distribution chain. Despite reporting increasing cash balances from 2019 to 2023, the company simultaneously experienced a sharp rise in current liabilities, posing a potential liquidity imbalance. Financial mismanagement, operational inefficiencies, and external pressures may contribute to hidden distress that is not immediately visible from the cash position alone.

Financial distress prediction models have emerged as crucial tools to anticipate such risks. Among the existing models Altman Z-Score, Grover, Ohlson, and Zmijewski the Springate Score model offers a simplified yet accurate framework. Developed using Multiple Discriminant Analysis (MDA), the Springate model selects four ratios proven to best discriminate between distressed and non-distressed firms working capital, profitability, solvency, and asset turnover. Prior studies report that the Springate model achieves high predictive accuracy up to 92.5% particularly for non-financial and industrial firms (Priyanti & Ikhsan, 2019; Lathifah, 2024). Its strength lies in emphasizing liquidity and profitability, two aspects that are highly relevant for companies operating in capital-intensive industries such as energy distribution.

Understanding the financial condition of PT Pertamina Patra Niaga is not only relevant for academics but also vital for policymakers, investors, regulators, and corporate leaders. The findings of this study can support strategic decision-making related to financial restructuring, operational adjustments, risk mitigation, and long-term planning. Moreover, early identification of distress indicators can help prevent operational disruptions—an outcome of national significance given the company's responsibility in maintaining energy distribution across Indonesia.



Based on these considerations, this study evaluates the financial distress potential of PT Pertamina Patra Niaga over the 2019–2023 period using the Springate Score model. The analysis aims to answer whether the company exhibits signs of weakening financial stability, how distress patterns evolve across years, and what implications these findings hold for future financial management.

2. RESEARCH METHOD

This study employs a quantitative descriptive approach designed to evaluate the financial condition of PT Pertamina Patra Niaga through systematic numerical analysis. The quantitative approach was selected because the research relies on objective financial data drawn directly from audited financial statements. According to Creswell (2018), quantitative methods are appropriate when the objective is to measure, compare, and interpret numerical indicators, while descriptive analysis is used to portray financial conditions without manipulating variables. In this context, descriptive quantitative analysis enables a structured assessment of financial distress indicators over a multi-year period.

The data used in this research consist of secondary data obtained from the company's official financial reports for the years 2019–2023. These reports include the statement of financial position, income statement, and supplementary notes which provide the necessary information for calculating the Springate ratios. Secondary data were chosen because they offer reliable and verifiable financial information that reflects the company's actual performance. Data collection was conducted through documentation techniques, where relevant financial figures were extracted, recorded, and processed for further analysis.

The analytical method applied in this study is the Springate Score model, developed by Gordon L.V. Springate using Multiple Discriminant Analysis (MDA). This model utilizes four financial ratios that have been empirically validated as strong predictors of corporate distress: working capital to total assets (X1), EBIT to total assets (X2), EBT to current liabilities (X3), and sales to total assets (X4). These ratios capture essential dimensions of financial stability, including liquidity, profitability, solvency, and operational efficiency. The Springate Score is calculated using the formula:

$$S = 1.03X1 + 3.07X2 + 0.66X3 + 0.40X4.$$

Once computed, each year's S-Score is classified according to the predefined threshold values:

$S < 0.862$ indicates financial distress,

$0.862 \leq S \leq 1.062$ indicates a grey area,

$S > 1.062$ indicates a financially healthy condition.

These categories allow for a clear interpretation of the company's financial status across the five-year period.

The analysis focuses on identifying trends, fluctuations, and patterns that may signal emerging financial risks. By comparing the S-Scores across years, the study evaluates not only the company's yearly financial condition but also its overall financial stability. This method



provides an early warning framework that can inform managerial decision-making, risk mitigation strategies, and future policy considerations.

3. RESULT AND DISCUSSION

This section presents the results of the Springate Score calculations for PT Pertamina Patra Niaga from 2019 to 2023. The results are analyzed to identify the company's financial condition and to assess whether signs of financial distress occurred during the observation period. The analysis includes working capital ratios, profitability indicators, debt obligations, and asset turnover, which together form the basis of the Springate Score classification.

Based on financial data extracted from the company's audited reports, the Springate Score for each year was computed. Table 1 presents a summary of the scores and their respective classifications.

Table 1. Springate Score Results for PT Pertamina Patra Niaga (2019-2023)

Year	S-Score	Category
2019	0.9953	Safe Zone
2020	1.0016	Safe Zone
2021	1.1350	Safe Zone
2022	0.0927	Distress
2023	1.5020	Safe Zone
Average	0.9453	Grey Area

The results show that the company remained in the safe zone for four of the five years, with the exception of 2022, where the S-Score fell drastically into the distress category. The strong rebound in 2023 returned the company to a healthy classification; however, the five-year average score places the firm within the grey area, indicating overall instability.

The period from 2019 to 2021 reflects relative stability, with modest improvements in profitability and operational efficiency. In 2022, the Springate Score dropped sharply to 0.0927, caused by a significant increase in current liabilities, weakened profitability, and heightened liquidity strain. The recovery in 2023, with a score of 1.5020, suggests a restoration of operational performance and improved asset utilization.

A closer look at the components of the Springate Score reveals substantial fluctuations in the company's liquidity, profitability, and solvency. Working capital relative to total assets experienced the most significant decline in 2022, driven by a disproportionate rise in current liabilities. This deterioration indicates liquidity distress and an increased reliance on short-term financing mechanisms. Profitability, measured through EBIT and EBT ratios, also weakened during 2022 due to rising operational costs and external market volatility. However, both liquidity and profitability indicators recovered considerably in 2023, supporting the company's return to the safe zone.



Meanwhile, the asset turnover ratio remained relatively stable throughout the period, signaling consistent operational demand. Although this ratio did not fluctuate dramatically, it contributed positively to the company's ability to recover in 2023 by maintaining strong sales performance relative to asset value.

The combined behavior of these ratios shows that the company's financial structure is highly sensitive to short-term obligations and shifts in earnings, as evidenced by the sharp decline in 2022 and subsequent recovery.

Discussion

The overall findings indicate that PT Pertamina Patra Niaga demonstrated both financial resilience and significant vulnerability during the 2019–2023 period. Although the company stayed within the safe zone for most years, the extreme drop in its 2022 financial performance reflects a structural fragility in liquidity management and exposure to external shocks.

The financial distress experienced in 2022 can be interpreted as the culmination of tightening liquidity, rising operational expenses, and a heavy burden of current liabilities. This pattern aligns with prior studies (Fitriani & Huda, 2020; Indriani et al., 2023) which emphasize that firms in the energy distribution sector are particularly susceptible to market fluctuations, regulatory shifts, and global geopolitical events. The temporary collapse in profitability and earnings further supports the assertion that operational factors play a critical role in financial stability for companies operating in capital-intensive industries.

The stability and eventual recovery observed in 2023 demonstrate the company's underlying resilience. Improved profitability, better asset utilization, and the restoration of liquidity contributed to the rebound. This recovery suggests that strategic adjustments—such as operational optimization, cost control, and improved cash flow management—were effective in lifting the company out of distress.

From a theoretical perspective, the Springate Score proved to be a reliable early-warning indicator. Its sensitivity to liquidity and profitability allowed it to detect distress even before major operational disruptions occurred. This finding supports previous research (Priyanti & Ikhsan, 2019; Lathifah, 2024), which identified the Springate model as an accurate predictor for non-financial firms.

The results also highlight broader managerial implications. The sharp volatility in financial performance underscores the urgency for strengthened liquidity management, reduced dependency on short-term financing, and a more robust long-term financial planning framework. Moreover, as a State-Owned Enterprise, financial distress in Pertamina Patra Niaga carries national-level implications, particularly in terms of energy security and fiscal governance. Therefore, proactive financial monitoring and stronger internal controls are essential to prevent similar distress events in the future.



4. CONCLUSION

This study concludes that PT Pertamina Patra Niaga experienced fluctuating financial conditions during 2019–2023, with an average Springate Score of 0.9453, placing the company in the grey area. While the firm remained financially healthy in most years, it fell into distress in 2022 due to severe liquidity pressures, rising short-term liabilities, and weakened operational profitability. Although the financial condition improved significantly in 2023, long-term stability remains uncertain. To prevent future distress, the company must strengthen working capital management, reduce dependency on short-term financing, enhance cost efficiency, and improve operational decision-making. Ensuring transparency in financial reporting is also crucial to mitigating agency-related risks and maintaining stakeholder trust.

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