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Financial Distress Analysis Using Altman, Springate, Zmijewski on Textile Company PT Sri Rejeki Isman Tbk.

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Abstract

Indonesia's textile industry, which includes the production of fibers, yarns, fabrics, and garments, has historically served as a cornerstone of the country's economy by providing substantial employment opportunities and generating significant foreign exchange earnings through exports. During its peak in the 1980s, the industry experienced robust growth; however, over the past few decades, it has encountered numerous challenges such as inefficient management, intensified global competition, and adverse trade policies, which have collectively contributed to a decline in performance and the closure of many textile factories. One notable example is PT Sri Rejeki Isman Tbk (Sritex), a well-established company with nearly 50 years of operational experience, which currently faces severe financial difficulties marked by mounting debt and operational struggles threatening its survival. This study aims to evaluate and forecast the financial health of Sritex using a descriptive quantitative methodology by analyzing financial data over recent years. The findings indicate that between 2021 and 2023, the company showed clear signs of financial distress, including sustained losses and a significant increase in debt levels, largely attributable to its inability to fulfill debt maturities on time. These outcomes emphasize the urgent need for the company to implement strategic financial restructuring and operational improvements to restore financial stability and ensure long-term sustainability in a highly competitive global textile market.
***Keywords**: Financial Distress, Altman Z-Score, Springate, Zmijewski*

A. INTRODUCTION

Indonesia is endowed with a diverse range of industrial sectors that serve as the backbone of its national economy. Among these, the textile and textile product (TPT) industry has long been recognized as one of the most important contributors to economic development. This sector plays a crucial role in transforming natural and synthetic fibers into yarn, fabric, and ultimately, finished garments that are consumed domestically and exported globally. Historically, the TPT sector has contributed significantly to Indonesia's gross domestic product (GDP), job creation, and foreign exchange earnings. As a labor-intensive industry, it has provided employment to millions of workers across various regions and skill levels, thereby supporting household incomes and regional economies. The strategic role of this industry in industrial development policies has positioned it as a national priority, especially during periods of export-oriented growth.

The peak performance of Indonesia's textile industry occurred during the 1980s and early 1990s, when high global demand and relatively low production costs enabled Indonesian manufacturers to capture significant market share in international textile trade. During this era, the country was regarded as one of the leading textile exporters in Southeast Asia. However, in recent

decades, the industry has been plagued by a variety of challenges that have steadily undermined its competitiveness. Internally, many textile companies face inefficiencies in production, limited technological advancement, outdated machinery, high operational costs, and issues related to labor management and compliance. These internal limitations are compounded by external pressures such as increasing competition from countries with more efficient textile supply chains (e.g., China, Vietnam, Bangladesh), unfavorable shifts in global trade regulations, and rising demands for sustainability and environmental compliance from international buyers.

One of the most alarming consequences of these multifaceted pressures is the declining financial performance of many Indonesian textile firms. Several companies have experienced prolonged periods of losses, capital deficits, and even insolvency. Financial distress—a condition characterized by a firm's inability to meet its financial obligations—has become a common phenomenon in the sector. This has raised serious concerns about the long-term sustainability of the industry and its ability to maintain its historical contributions to employment and foreign exchange. In extreme cases, financial distress leads to bankruptcy, asset liquidation, and delisting from capital markets, which not only affect the firms themselves but also have broader social and economic implications, including job losses and declining investor confidence.

A prominent example of this decline is the case of PT Sri Rejeki Isman Tbk, commonly known as Sritex. Founded over five decades ago, Sritex was once a flagship textile company in Indonesia, renowned for its high-quality products and strong presence in both local and international markets. Despite its historical achievements and reputation, Sritex has recently encountered serious financial challenges. According to CNBC Indonesia, the company began accumulating a significant amount of debt, leading to the suspension of its stock trading by the Indonesia Stock Exchange (IDX) starting on May 18, 2022. As of May 2023, the company had been suspended for over 24 consecutive months, making it eligible for delisting according to IDX regulations. In addition to this suspension, the company reported ongoing losses over three consecutive years: -$1.08 billion in 2021, -$395.56 million in 2022, and -$174.84 million in 2023. These figures indicate not only a negative trend in profitability but also a deteriorating balance sheet with liabilities exceeding assets, leading to negative equity and signaling a high risk of bankruptcy.

The financial decline of Sritex exemplifies a larger structural problem within Indonesia's textile industry. It underscores the importance of early detection and management of financial distress through robust financial analysis and timely strategic decisions. As Sritex struggles to meet its debt obligations and sustain its operations, the case raises critical questions about governance, risk management, and industrial policy. It also highlights the urgent need for transformation within the textile sector, including investment in technology, innovation in production processes, and stronger alignment with global standards. More broadly, understanding the dynamics of financial distress in firms like Sritex is essential for policymakers, industry practitioners, and researchers who are committed to revitalizing one of Indonesia's most historically significant yet currently vulnerable industrial sectors.

B. LITERATURE REVIEW

Financial Distress

Financial distress analysis is a crucial aspect of evaluating a company's financial health, as it allows early detection of potential failures that may lead to bankruptcy. Foster (1986) outlines several indicators that can be used to predict financial trouble, including (1) current and projected cash flow analysis; (2) strategic business assessments that consider industry competition, cost structures, growth opportunities, resilience to rising costs, and management quality; (3) evaluation of financial statements by comparing the company's performance with peer firms; and (4) external variables such as bond yields and market securities (Saadah, 2019). These elements collectively offer a comprehensive perspective of a firm's financial trajectory. According to Purnanadam (2007), prolonged poor performance, consistent losses, and successive years of negative cumulative earnings are clear markers of financial distress. In more severe cases, such conditions can culminate in bankruptcy (Kristanti, 2019), emphasizing the importance of continuous financial monitoring.

Financial distress, as explained by Platt and Platt (2007) and reinforced by Goh (2023), refers to the phase of financial deterioration that occurs before the actual liquidation or bankruptcy of a firm. One of the earliest symptoms of financial distress is a firm's inability to meet its financial obligations, particularly in the short term. This is typically reflected in liquidity issues and solvency challenges that manifest on the balance sheet. Specifically, when the total liabilities surpass the total assets, or when the company operates with negative working capital, it signals that the firm's capital is insufficient to cover outstanding payables and receivables. This misalignment of financial resources can severely

hinder the firm's operational capabilities, leading to continued losses and diminishing the company's ability to finance its day-to-day activities (Marli & Widanarni, 2021).

Preventing bankruptcy requires a proactive approach to maintaining financial stability. Companies must continually assess their financial condition to ensure that early signs of distress are promptly addressed. Hadi et al. (2024) suggest that firms must strive to prevent insolvency through timely interventions and strategic adjustments to financial management practices. Moreover, Resfitasari et al. (2022) emphasize the importance of early detection, stating that identifying signs of financial distress as early as possible enhances a company's chances of recovery. Through diligent analysis and responsive decision-making, companies can implement necessary reforms and strategies to stabilize their financial performance and secure long-term sustainability.

Altman Z-Score

Altman (1968) pioneered the use of multiple discriminant analysis (MDA) as a statistical technique to categorize the financial condition of companies by identifying differences across several financial attributes. This method laid the foundation for the widely recognized Altman Z-Score model, which serves as a predictive tool to assess the likelihood of bankruptcy. By applying the Z-Score, company management can analyze financial ratios to determine the level of financial stability and performance over time. A high Z-Score indicates strong financial health and a low risk of failure, while a low Z-Score suggests potential distress. The model is not only useful for assessing the present condition of a business but also for forecasting future risks, enabling companies to take early corrective measures. As highlighted by Anggraeni et al. (2021), bankruptcy prediction models such as the Z-Score provide a strategic advantage for companies in planning and resource allocation to improve long-term sustainability.

Altman's methodology began by analyzing 22 financial ratios and narrowing them down to five key indicators that best distinguish between bankrupt and non-bankrupt firms. These include working capital to total assets, retained earnings to total assets, earnings before interest and taxes to total assets, market value of equity to book value of total debt, and sales to total assets. Over time, Altman refined his model to suit various industries and types of firms, including manufacturing, non-manufacturing, and those in developing markets issuing bonds. This evolution reflects the model's adaptability to different economic contexts and business structures. Altman also revised the original formula to exclude certain asset measures, making it more relevant and applicable to broader business environments (Novia et al., 2021). Moreover, the model emphasizes profitability as the core determinant of bankruptcy risk (Wahyuni, 2021), reinforcing the need for consistent earnings performance to ensure financial solvency and operational longevity.

Springate

The Springate method, developed by Gordon L.V. Springate in 1978, is a bankruptcy prediction model that evolved from earlier financial distress research, particularly that of Beaver (1966) and Altman (1968). While Altman popularized the use of Multiple Discriminant Analysis (MDA) to develop his Z-Score model using five financial ratios, Springate sought to refine this approach by constructing a more simplified and accessible tool that retained strong predictive accuracy. Utilizing stepwise discriminant analysis, Springate selected four key financial ratios out of an initial pool of nineteen, prioritizing their statistical relevance and explanatory power. These four ratios are: working capital to total assets, earnings before interest and taxes (EBIT) to total assets, earnings before taxes (EBT) to current liabilities, and sales to total assets. Together, these indicators are meant to reflect liquidity, profitability, and operational efficiency—critical dimensions of financial health that can signal a company's vulnerability to distress.

What distinguishes the Springate model from its predecessors is its deliberate emphasis on both simplicity and diagnostic accuracy. By narrowing down to only four financial ratios, the model offers a more user-friendly approach while still maintaining robustness in its analytical outcomes. This makes the method particularly attractive to practitioners who require quick, efficient evaluations of financial risk without sacrificing reliability. Furthermore, according to Yunita and Wibowo (2021), profitability—represented by the EBIT to total assets ratio—emerges as the most influential variable in the model, highlighting the importance of a firm's capacity to generate returns on its assets before financial and tax obligations. The inclusion of sales to total assets also ensures that operational efficiency is considered, offering a well-rounded perspective of a firm's economic viability.

In terms of predictive accuracy, the Springate model has shown considerable strength in forecasting corporate bankruptcy. Pelitawati and Kusumawardana (2020) report a success rate of approximately 69.7%, which in certain studies has outperformed other established models, including Zmijewski, Grover, and even the original Altman Z-Score in specific industrial contexts. This enhanced performance can be attributed to the model's methodological precision and its use of only the most

statistically significant indicators. The Springate model is especially effective in sectors where rapid financial diagnostics are necessary but full audits or complex modeling are impractical. As such, it has been adopted widely by investors conducting due diligence, creditors assessing repayment capacity, and corporate managers seeking early warning signs of deteriorating financial conditions.

Moreover, the practical application of the Springate model makes it a valuable asset in today's dynamic and often volatile economic landscape. With many firms operating under increasingly thin margins and facing sudden disruptions—such as supply chain breakdowns or shifts in consumer demand—having access to a lean yet effective bankruptcy prediction model is vital. As noted by Fahma and Setyaningsih (2021), the strength of the Springate method lies in its capacity to produce a valid diagnostic output using only a minimal set of variables, allowing it to be applied even when comprehensive data may not be readily available. Its balanced design serves both academic researchers and business practitioners, bridging the gap between theoretical sophistication and operational usability in the realm of financial distress analysis.

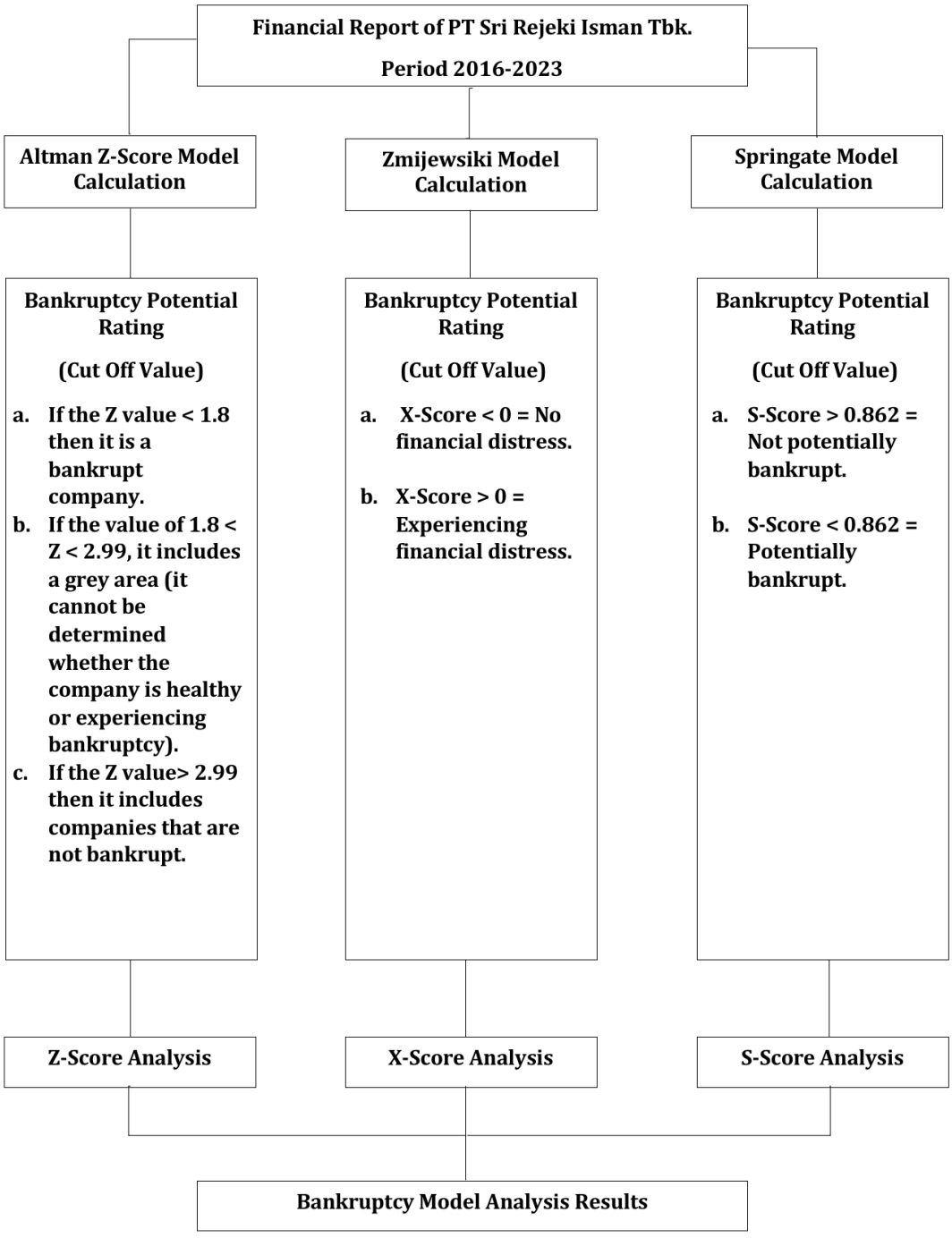
Zmijewski

The Zmijewski analysis method, developed by Mark E. Zmijewski in 1984, is a widely recognized model for predicting corporate bankruptcy, often referred to as the X-Score model. Zmijewski introduced this model to address some of the limitations found in earlier bankruptcy prediction tools, such as those developed by Altman and Springate. His research utilized comprehensive data sources, including The Capital Change Reporter, The Wall Street Journal Index, and The Compustat Research File, to identify and verify companies that had entered bankruptcy. This model is particularly known for its simplicity and precision, as it only uses three financial ratios—return on assets (ROA), leverage (debt to assets), and liquidity (current assets to current liabilities)—to assess a company's financial stability (Lestari et al., 2023; Ningsih, 2023).

Unlike other models that rely on multiple variables and complex calculations, the Zmijewski model is effective due to its focused use of only the most critical indicators that directly reflect a firm's profitability, debt burden, and short-term financial health. ROA provides insight into how efficiently a company is using its assets to generate profit, while leverage evaluates the company's dependency on external funding, and liquidity measures its ability to meet short-term obligations. According to Marli and Widanarni (2021), these three indicators offer a robust and comprehensive snapshot of a company's financial position, making the model a practical tool for early detection of financial distress. By using these ratios, the Zmijewski model helps managers, investors, and creditors to monitor warning signs and make informed decisions before a company experiences severe financial trouble.

The model was tested on a large dataset comprising 800 non-bankrupt firms and 40 bankrupt firms, and it demonstrated an impressive 99% accuracy rate in distinguishing between the two groups (Ambarwati & Sriwardany, 2021). This high level of accuracy has contributed to the model's credibility and widespread adoption in various financial and academic settings. Moreover, the Zmijewski model's strength lies in its ability to consistently provide reliable predictions across different industries and economic conditions. Because of its empirical backing and ease of application, the model remains a valuable analytical tool for identifying firms at risk of insolvency. By relying on objective financial data rather than subjective judgment, the Zmijewski model continues to serve as a key instrument for stakeholders seeking to mitigate financial risk and enhance corporate governance.

Figure 1. Research Model



C. RESEARCH METHODS

This study employs secondary data as its primary data source and follows a quantitative descriptive research design. The secondary data were obtained from the financial statements of PT Sri Rejeki Isman Tbk for the period 2016 to 2023, which are publicly accessible on the Indonesia Stock Exchange (IDX) website at www.idx.co.id. The financial statements provide a comprehensive overview of the company's financial performance and position over these eight years. To analyze the financial distress of PT Sri Rejeki Isman Tbk, this study utilizes three well-established financial distress

prediction models: the Altman Z-Score, Springate, and Zmijewski models. These methodologies enable a multi-dimensional evaluation of the company's overall financial health and bankruptcy risk.

The Altman Z-Score model, as presented by Maiyaliza (2017), calculates a bankruptcy index using the following formula:

$$Z''=1.2X1+1.4X2+3.3X3+0.6X4+1.0X5$$

Where the variables represent:
X1: Working Capital / Total Assets
X2: Retained Earnings / Total Assets
X3: Earnings Before Interest and Taxes (EBIT) / Total Assets
X4: Market Value of Equity / Book Value of Total Debt
X5: Sales / Total Assets

The computed ZZ value serves as an overall index derived from multiple discriminant analysis, which Altman categorizes into three distinct zones to predict a company's financial condition:
a) $Z<1.8$ indicates a high likelihood of bankruptcy;
b) $1.8\leq Z\leq 2.99$ places the company in a "gray area," where the financial condition is uncertain;
c) $Z>2.99$ suggests the company is financially healthy and unlikely to face bankruptcy in the near future.

The Springate model, as outlined by Mulyati and Ilyasa (2020), uses a similar approach but with four key ratios, computed as follows:

$$S=1.03X1+3.07X2+0.66X3+0.4X4$$

where:
X1: Working Capital / Total Assets
X2: EBIT / Total Assets
X3: Earnings Before Taxes (EBT) / Current Liabilities
X4: Sales / Total Assets

According to Springate's criteria, a company with an SS-score above 0.862 is considered financially healthy, while an SS-score below this threshold indicates financial distress or potential bankruptcy.

The Zmijewski model, referenced from Ramadhani et al. (2023), applies the following formula to predict financial difficulties:

$$X=-4.3-4.5X1+5.7X2+0.004X3X=-4.3-4.5X1+5.7X2+0.004X3$$

where:
X1: Net Income / Total Assets (Return on Assets, ROA)
X2: Total Debt / Total Assets (Leverage)
X3: Current Assets / Current Liabilities (Liquidity)

In this model, a score $X>0X>0$ signals that the company is likely to experience financial distress, whereas $X<0X<0$suggests the company is financially stable and unlikely to face bankruptcy. Together, these three models provide a robust framework for assessing PT Sri Rejeki Isman Tbk's financial health and risk of distress by examining different but complementary financial ratios related to profitability, leverage, liquidity, and operational efficiency.

D. RESULT AND DISCUSSION

Before delving into the financial data, it is essential to understand the background and analytical framework used to evaluate PT Sri Rejeki Isman Tbk's financial condition. As a longstanding company in Indonesia's textile sector, PT Sri Rejeki Isman Tbk has faced increasing pressures from market competition, rising debts, and operational challenges in recent years. To assess the company's financial stability and the risk of bankruptcy, this study applies the Altman Z-Score model, a renowned financial tool designed to predict corporate distress by combining multiple key financial ratios. This approach provides a structured and quantitative method to track the company's financial health over time and identify early warning signs of potential insolvency.

The Altman Z-Score model integrates five critical financial ratios—working capital to total assets, retained earnings to total assets, earnings before interest and taxes to total assets, market value of equity to book value of total debt, and sales to total assets—to provide a comprehensive view of a company's performance. These ratios collectively measure liquidity, profitability, leverage, market perception, and operational efficiency, enabling a balanced assessment of financial risk. By analyzing these ratios for PT Sri Rejeki Isman Tbk across an eight-year period, the model distinguishes phases

where the company maintained moderate financial health from periods indicating increasing financial distress.

The forthcoming section presents the calculated Z-Score results for PT Sri Rejeki Isman Tbk from 2016 to 2023, revealing a clear trend in the company's financial trajectory. The initial years show the company operating within a "Gray Area," signifying moderate risk but not immediate danger. However, a marked decline in the scores after 2020 signals heightened bankruptcy risk, driven by deteriorating profitability and increasing liabilities. These findings underscore the urgent need for strategic financial and operational adjustments to stabilize the company's position and mitigate further financial decline.

Table 1
Altman Z-Score Bankruptcy Model Calculation Results
At PT Sri Rejeki Isman Tbk.
Period 2016-2023

Year	Z-Score	Conclusion
2016	1,9304	gray area
2017	2,067	gray area
2018	2,1572	gray area
2019	2,2506	gray area
2020	2,0544	gray area
2021	-1,5034	bankrupt
2022	-1,983	bankrupt
2023	-2,4547	bankrupt
Average	0,5648	bankrupt

Source: Spreadsheet processed data

The Altman Z-Score model analysis for PT Sri Rejeki Isman Tbk utilizes five key financial ratios: working capital to total assets (X1), retained earnings to total assets (X2), earnings before interest and taxes to total assets (X3), market value of equity to book value of total debt (X4), and sales to total assets (X5). These indicators are used to assess the company's financial health and predict the likelihood of bankruptcy. Based on data spanning eight years, the company was categorized in the "Gray Area" from 2016 to 2020, as the Z-Score values were slightly above the critical threshold of 1.8, suggesting moderate financial risk. However, this position worsened in the subsequent years, with the Z-Score falling below 1.8 during 2021–2023, indicating a heightened risk of bankruptcy. This decline is supported by a noticeable drop in X2 (retained earnings/total assets) and X3 (earnings before interest and taxes/total assets), reflecting the company's weakening profitability and retained earnings.

Overall, the average Z-Score value of PT Sri Rejeki Isman Tbk during the eight-year period stands at 0.5648, which is significantly below the 1.8 threshold that marks financial distress. This low average score strongly signals the company's vulnerability to bankruptcy if corrective measures are

not implemented. The consistent decline in key financial indicators, especially in recent years, suggests deteriorating operational performance and reduced financial resilience. The results highlight the need for strategic financial restructuring and improved operational efficiency to avoid insolvency and restore investor confidence.

Table 2
Zmijewski Bankruptcy Model Calculation Results
At PT Sri Rejeki Isman Tbk.
Period 2016-2023

Year	X-Score	Conclusion
2016	-1,0143	not experiencing financial distress
2017	-1,106	not experiencing financial distress
2018	-1,1932	not experiencing financial distress
2019	-1,1551	not experiencing financial distress
2020	-0,9835	not experiencing financial distress
2021	6,2231	financial distress
2022	8,3851	financial distress
2023	10,2839	financial distress
Average	2,5744	Financial Distress

Source: data processed with Spreadsheet

Based on the Zmijewski model analysis, PT Sri Rejeki Isman Tbk's financial health was assessed using three fundamental financial ratios: return on assets (ROA) represented by net income to total assets (X1), leverage measured as total debt to total assets (X2), and liquidity calculated by current assets to current liabilities (X3). These key ratios form the basis for calculating the X-Score, which is used to predict the likelihood of financial distress. From 2016 to 2020, the company's X-Score remained below the critical cut-off value of 0, indicating a low risk of financial distress during this timeframe. This period reflected a relatively stable financial condition where PT Sri Rejeki Isman Tbk maintained a balanced capital structure, with manageable debt levels and sufficient current assets to cover its short-term liabilities. The positive ROA implied efficient asset utilization in generating profits, while the liquidity ratio showed that the company had adequate working capital to meet immediate obligations. Consequently, these factors suggest that the company operated in a financially stable state with a low probability of default from 2016 through 2020.

In contrast, the company experienced a marked decline in financial stability between 2021 and 2023, as evidenced by the X-Score surpassing the cut-off point, signaling an increased risk of financial distress. This negative trend was primarily driven by a substantial rise in total liabilities (X2), indicating heavier reliance on debt financing and a weakening equity base. Simultaneously, fluctuations and increases in current liabilities (X3) highlighted growing challenges in managing short-term financial commitments, possibly reflecting cash flow constraints or operational inefficiencies. These deteriorating leverage and liquidity ratios suggest that the firm faced difficulties in servicing its

debts and maintaining adequate liquidity, which heightened its vulnerability to insolvency. The company's inability to sustain a healthy balance between assets and obligations during this period points to underlying financial and operational stresses that require immediate attention.

When the X-Score is averaged over the entire eight-year period from 2016 to 2023, the value reaches 2.5744—significantly above the distress threshold of 0—categorizing PT Sri Rejeki Isman Tbk as a firm under financial distress. This prolonged exposure to financial risk underscores the urgency for the company to undertake comprehensive internal evaluations and strategic interventions. Recommended actions may include debt restructuring to reduce leverage, improving liquidity management, and optimizing operational efficiency to restore profitability. Without timely corrective measures, the company faces heightened risks of insolvency and loss of stakeholder confidence, potentially threatening its long-term viability in an increasingly competitive market environment.

Table 3
Bankruptcy Model S-Score Calculation Results
At PT Sri Rejeki Isman Tbk.
Period 2016-2023

Year	S-Score	Conclusion
2016	1,2909	healthy
2017	1,2787	healthy
2018	1,3145	healthy
2019	1,5	healthy
2020	1,1554	healthy
2021	-3,6961	unhealthy
2022	-2,5672	unhealthy
2023	-1,1684	unhealthy
Average	-0,1115	Unhealthy

Source: data processed with Spreadsheet

The Springate model is a predictive financial distress model developed to assess a company's bankruptcy risk by utilizing four main financial ratios: working capital to total assets (X1), earnings before interest and taxes to total assets (X2), earnings before tax to current liabilities (X3), and sales to total assets (X4). The computation of the Springate S-Score involves these ratios to produce a final score that can be compared against the standard cut-off value of 0.862. If the result is above this threshold, the company is considered financially healthy; otherwise, it is deemed to be at risk. Based on the data analysis of PT Sri Rejeki Isman Tbk over the period 2016 to 2023, the company showed signs of financial health from 2016 to 2020. During these years, the company's earnings before interest and taxes (EBIT) and earnings before tax (EBT) remained above the threshold, reflecting solid profitability, healthy liquidity, and efficient asset utilization. These indicators signaled the company's

capability to meet its short-term obligations and maintain operational sustainability, with relatively low bankruptcy risk during that period.

However, beginning in 2021 and continuing through 2023, PT Sri Rejeki Isman Tbk's financial performance began to deteriorate significantly. The EBIT and EBT indicators dropped below the cut-off value of 0.862, leading to a classification of financial unhealthiness based on the Springate model. This shift in financial condition indicates increased financial pressure and an inability to generate sufficient profits from operations. The decline in key financial metrics such as profitability and operational efficiency suggests mounting challenges in revenue generation, cost control, and the company's ability to service its liabilities. This phase of decline may also reflect broader external economic factors, misaligned financial strategies, or internal inefficiencies. As the Springate model is designed to provide early signals of bankruptcy risk, the company's poor performance over these recent years is a serious warning sign for management and stakeholders to act swiftly in implementing recovery strategies.

When calculating the average S-Score over the entire eight-year period, the result stands at -0.1115—significantly below the established cut-off point of 0.862. This average reinforces the classification of PT Sri Rejeki Isman Tbk as being in a state of financial distress. According to Ilyasa (2018), the Springate model is recognized as the most reliable among several bankruptcy prediction models due to its high level of accuracy and the lowest rate of type I error (false positives). It outperforms other models such as the Zmijewski model (ranked second), the Altman Z-Score model (ranked third), and the Internal Growth Rate model (ranked fourth). Given its predictive strength, the results generated from the Springate model offer valuable insights into the financial health of the company and should be used as a basis for strategic planning. For PT Sri Rejeki Isman Tbk, this means prioritizing financial restructuring, enhancing operational efficiencies, and improving stakeholder communication to rebuild trust and stabilize its financial position.

E. CONCLUSION

Based on the results of the analysis using the Altman Z-Score, Zmijewski, and Springate models, PT Sri Rejeki Isman Tbk demonstrated relatively sound financial performance during the period from 2016 to 2020, as indicated by the absence of financial distress signals. These findings suggest that the company was financially stable and met key thresholds for profitability, liquidity, and solvency during that time. However, in the subsequent period from 2021 to 2023, all three predictive models consistently reflected signs of deteriorating financial health, marked by increasing leverage, declining profitability, and negative equity. When the eight-year period is viewed in its entirety (2016–2023), the trend indicates a heightened risk of financial distress, particularly in the last three years.

In response to this financial vulnerability, it is recommended that PT Sri Rejeki Isman Tbk undertake strategic financial restructuring initiatives. These may include renegotiating outstanding debt obligations with creditors, divesting non-core or underperforming assets, and pursuing alternative sources of capital to improve liquidity. Additionally, operational improvements should be prioritized by adopting cost-efficiency measures, leveraging technology to streamline production, and enhancing supply chain management. Expanding into new markets and diversifying the product portfolio can also serve as a long-term strategy to mitigate business risk and stabilize revenue streams.

For future academic inquiry, researchers are encouraged to employ other financial distress prediction models such as those developed by Ohlson, Zavgren, Taffler, or Grover. Each model uses different variables and assumptions, which may provide broader insight when applied in a comparative context. Combining these quantitative models with qualitative assessments—such as industry outlooks, governance factors, or macroeconomic conditions—may also yield a more holistic understanding of corporate financial health and the early warning signals of insolvency.

REFERENCE

Affandi, M. R., & Meutia, R. (2021). Analisis Potensi Financial Distress Dengan Menggunakan Altman Z Score Pada Perusahan Penerbangan (Dampak Pandemi Covid-19 Dengan Penutupan Objek Wisata Dan Psbb). J-MIND (Jurnal Manajemen Indonesia), 6(1), 52. https://doi.org/10.29103/j-mind.v6i1.4875

Altman, E. I. (1968). Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy. The Journal of Finance, 23(4), 589–609. https://doi.org/10.2307/2326758

Ambarwati, K. F., & Sriwardany. (2021). Analisis Perbandingan Model Springate Dan Model Zmijewski Dalam Mengukur Tingkat Kesehatan Perusahaan Pada PT. Bintang Persada Satelit. Indonesian Journal of Business Analytics, 1(2), 261–270. https://doi.org/10.54259/ijba.v1i2.81

Anggraeni, R. D., Erijawati, E., Sutrisna, & Alexander. (2021). Analisis Financial Distress Altman Z-Score dengan Pendekatan Data Mining Pada Perusahaan Manufaktur Subsektor Logam Periode 2018-2020 yang Terdaftar di BEI. AKUNTOTEKNOLOGI: Jurnal Ilmiah Akuntansi Dan Teknologi, 13(2), 1–12. www.idx.co.id

Beaver, W. H. (1966). Financial Ratios as Predictors of Failure. Journal of Accounting Research, 4, 71–111. https://doi.org/10.2307/2490171

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

Goh, T. S. (2023). MONOGRAF: FINANCIAL DISTRESS. Indomedia Pustaka.

Hadi, A., Dahruji, D., & Joni, J. (2024). Prediksi Finansial Distress Dengan Metode Altman Z-Score, Zmijewski, Dan Grover Pada Perusahaan Sawit Terindeks Saham Syariah Periode 2020-2022. LISAN AL-HAL: Jurnal Pengembangan Pemikiran Dan Kebudayaan, 18(1), 95–112. https://doi.org/10.35316/lisanalhal.v18i1.95-112

Ilyasa, S. (2018). Analisis Perbandingan Model Altman Z-Score, Springate, Zmijewski, dan Internal Growth Rate dalam Memprediksi Financial Distress (Studi empiris pada Perusahaan Pertambangan yang Terdaftar di Bursa Efek Indonesia Periode 2014-2016). 26.

Kristanti, F. T. (2019). Analisis Survival Untuk Financial Distress Di Indonesia. Inteligensia Media.

Lestari, D., Sudiyanto, T., & Emilda, E. (2023). Analisis Prediksi Kebangkrutan Pada PT. Elnusa Tbk Menggunakan Model Altman Ohlson dan Zmijewski yang Terdaftar di Bursa Efek Indonesia. ECo-Buss, 6(2), 668–675. https://doi.org/10.32877/eb.v6i2.869

Maiyaliza. (2017). PREDIKSI KEBANGKRUTAN DENGAN MENGGUNAKAN METODE ALTMAN Z-SCORE MODIFIKASI PADA PERUSAHAAN BUMN GO PUBLIC SEKTOR FARMASI DI INDONESIA. JURISMA: JURNAL RISET BISNIS & MANAJEMEN, 14.

Marli, & Widanarni. (2021). PREDIKSI KEBANGKRUTAN DENGAN MENGGUNAKAN METODE ALTMAN Z-SCORE MODIFIKASI PADA PERUSAHAAN BUMN GO PUBLIC SEKTOR FARMASI DI INDONESIA. DINA MIKA EKONOMI Jurnal Ekonomi Dan Bisnis, 14(1), 83–99.

Muhammad Zaky. (2022). Analisis Financial Distress dengan Menggunakan Metode Altman Z-Score untuk Memprediksi Kebangkrutan pada PT. Ramayana Lestari Sentosa Tbk (RALS) Periode 2017-2021. Ekonomak, 5(3), 13. https://www.ejournal.stiepgri.ac.id/index.php/ekonomak/article/view/200

Mulyati, S., & Ilyasa, S. (2020). The Comparative Analysis of Altman Z-Score, Springate, Zmijewski, And Internal Growth Rate Model in Predicting the Financial Distress (Empirical Study on Mining Companies Listed on Indonesia Stock Exchange 2014-2017). Kinerja, 24(1), 82–95. https://doi.org/10.24002/kinerja.v24i1.3231

Ningsih, M. E. D. (2023). Analisis Financial Distress Menggunakan Metode Zmijewski X-ScorePada Sektor Consumer Non-Cyclical Yang Terdaftar Di Bursa EfekIndonesia (Bei) Periode 2019-2022. Jurnal Ilmu Manajemen Dan Kewirausahaan, 3(1), 118–125.

Novia, R., Desy, R. S., & Zul, A. (2021). Analisis Financial Distress Dengan Menggunakan Metode Altman Z-Score, Springate, Zmijweski, Dan Grover Pada Pt.Ultrajaya Milk Industry and Trading Company Tbk Dari Tahun 2016-2019. Research In Accounting Journal, 1(3), 440–450.

Ohlson, J. A. (1980). Financial Ratios and the Probabilistic Prediction of Bankruptcy. Journal of Accounting Research, 18(1), 109–131. https://doi.org/10.2307/2490395

Pelitawati, D., & Kusumawardana, R. A. (2020). B. Analisis Komparasi Model Altman, Zmijewski Dan Springate Untuk Memprediksi Financial Distress Pada Perusahaan Yang Terdaftar Di Bursa Efek Indonesia. Economics and Sustainable Development, 5(1), 13. https://doi.org/10.54980/esd.v5i1.107

Pindado, J., Rodrigues, L., & De la Torre, C. (2008). Estimating Financial Distress Likelihood. Journal of Business Research, 61(9), 995–1003. https://doi.org/10.1016/j.jbusres.2007.10.006

Platt, H. D., & Platt, M. B. (2002). Predicting Corporate Financial Distress: Reflections on Choice-Based Sample Bias. Journal of Economics and Finance, 26, 184–199.

Rahmat, R. (2020). Analisis Financial Distress Menggunakan Model Altman Z-Score, Springate Zmijewski, Grover dan Penilaian Kesehatan Bank Metode Camel. Jurnal ASET (Akuntansi Riset), 12(1), 1–16. https://doi.org/10.17509/jaset.v12i1.23062

Ramadhani, R., Yuliani, Y., Saputri, N. D. M., & Muthia, F. (2023). Prediksi Financial Distress: Analisis Metode Altman Z-Score, Zmijewski, dan Grover pada Perusahaan Sektor Transportasi dan Logistik. Widya Cipta: Jurnal Sekretari Dan Manajemen, 7(2), 207–217. https://doi.org/10.31294/widyacipta.v7i2.16108

Resfitasari, E., Taofik Muhammad Gumelar, Andini Ulhaq, & Nina Rusmayanti. (2022). Analisis Prediksi Financial Distress Dengan Metode Altman Z-Score Pada PT. Waskita Karya Tbk. Jurnal Aktiva : Riset Akuntansi Dan Keuangan, 3(3), 131–140. https://doi.org/10.52005/aktiva.v3i3.123

Saadah, K. (2019). Analisis Perbandingan Financial Distress Masa Pandemi Covid-19 (Studi Pada Perusahaan Properti , Real Estate dan Konstruksi Yang Listing di BEI). Jurnal Akuntansi Kompetif, 4(3), 235–240.

Springate, G. L. V. (1978). Predicting the Possibility of Failure in a Canadian Firm. Unpublished MBA Research Project. Simon Fraser University.

Taffler, R. J. (1983). The Assessment of Company Solvency and Performance Using a Statistical Model. Accounting and Business Research, 13(52), 295–308. https://doi.org/10.1080/00014788.1983.9729767

Wahyuni, S. F. (2021). Analisis Financial Distress Menggunakan Metode Altman Z-Score , Springate , Zmijeski Dan Grover Pada Perusahaan Sektor Perkebunan yang Terdaftar di Bursa Efek Indonesia MANEGGIO : Jurnal Ilmiah Magister Manajemen. 4, 62–72.

Yunita, R. T., & Wibowo, D. (2021). Kemampuan Teori Model Altman, Springate, Grover, Dan Zmijewski Dalam Memprediksi Financial Distress Perusahaan Transportasi. Ilmu Riset Dan Akuntansi, 11(11), 83–103.

Zmijewski, M. E. (1984). Methodological Issues Related to the Estimation of Financial Distress Prediction Models. Journal of Accounting Research, 22, 59–82.