DIGITAL BUSINESS TRANFORMATION: THE ULTIMATE STRATEGY OF PT. PLN (PERSERO) IN BOOSTING BUSINESS PERFORMANCE AND AVOIDING FINANCIAL DISTRESS

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ABSTRAK

Studi ini menyelidiki kesulitan keuangan PT PLN (Persero), penyedia listrik BUMN Indonesia, dari tahun 2019 hingga 2023 menggunakan metode Springate S-Score. Meskipun menerapkan transformasi bisnis digital dan inisiatif pengembangan sumber daya manusia untuk meningkatkan efisiensi operasional dan kualitas layanan, PLN menghadapi tantangan keuangan yang terus berlangsung. Hasil Springate S-Score menunjukkan kesulitan keuangan yang signifikan pada tahun 2021, yang mencerminkan puncak tekanan keuangan PLN. Namun, perbaikan diamati pada tahun 2022 dan 2023, menandakan pemulihan bertahap sebagai hasil dari langkah-langkah pemotongan biaya dan penyesuaian strategis. Berdasarkan temuan tersebut, studi ini merekomendasikan agar PLN fokus pada pengurangan belanja modal, menegosiasikan kembali persyaratan utang, dan meningkatkan praktik manajemen keuangan. Langkah-langkah ini dirancang untuk menstabilkan posisi keuangan perusahaan dan meningkatkan keberlanjutan jangka panjangnya, terutama karena sektor energi terus berkembang dengan meningkatnya permintaan akan efisiensi dan solusi energi terbarukan. Studi ini lebih lanjut menekankan dampak inefisiensi operasional PLN, yang telah memperparah kesulitan keuangannya. Ketergantungan perusahaan pada pembiayaan eksternal telah meningkatkan kerentanannya terhadap tekanan pembayaran utang. Selain itu, harga energi yang berfluktuasi dan tantangan dalam mempertahankan aliran pendapatan yang konsisten telah menambah tekanan keuangannya. Dengan mengatasi isu-isu inti ini, PLN dapat meningkatkan ketahanannya dan beradaptasi dengan lanskap energi yang berkembang, memastikan stabilitas keuangan dan keberlanjutan operasional dalam jangka panjang. Rekomendasi yang diberikan bertujuan untuk menyeimbangkan kebutuhan pembangunan infrastruktur dengan kehati-hatian finansial, memposisikan PLN untuk masa depan yang lebih aman.

ABSTRACT

This study investigated the financial difficulties of PT PLN (Persero), Indonesia's state-owned electricity provider, from 2019 to 2023 using the Springate S-Score method. Despite implementing digital business transformation and human resource development initiatives to improve operational efficiency and service quality, PLN faces ongoing financial challenges. The results of the Springate S-Score show significant financial difficulties in 2021, which reflects the peak of PLN's financial pressure. However, improvements were observed in 2022 and 2023, signaling a gradual recovery as a result of cost-cutting measures and strategic adjustments. Based on these findings, the study recommends that PLN focus on reducing capital expenditures, renegotiating debt requirements, and improving financial management practices. These measures are designed to stabilize the company's financial position and improve its long-term sustainability, especially as the energy sector continues to evolve with the increasing demand for efficiency and renewable energy solutions. The study further highlights the impact of PLN's operational inefficiencies, which have exacerbated its financial difficulties. The company's reliance on external financing has increased its vulnerability to debt servicing pressures. In addition, fluctuating energy prices and challenges in maintaining a consistent income stream have added to its financial pressures. By addressing these core issues, PLN can improve its resilience and adapt to the evolving energy landscape, ensuring financial stability and operational sustainability in the long term. The recommendations given aim to balance the needs of infrastructure development with financial prudence, positioning PLN for a safer future.
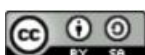
INTRODUCTION

In 2021, several major Indonesian state-owned enterprises (BUMN) faced severe financial challenges due to significant debt burdens. Garuda Indonesia, the national airline, was particularly hard-hit and declared technically bankrupt. The airline's debt exceeded Rp 140 trillion (around USD 9.8 billion), driven primarily by the collapse in air travel during the COVID-19 pandemic. With revenues plummeting as passenger numbers dwindled, Garuda struggled to maintain liquidity and meet its financial obligations. The government considered various options for saving the airline, including restructuring its debt, bringing in strategic partners, or even liquidating the company, given the scale of its financial distress. Krakatau Steel, Indonesia's largest steel producer, also faced imminent financial failure with a potential default looming by the end of 2021. The company had already gone through a USD 2 billion debt restructuring in 2019, but challenges such as falling global steel prices and an influx of cheaper imported steel products continued to strain its operations. Despite these efforts to reduce debt, Krakatau Steel remained vulnerable, and its financial stability remained uncertain, prompting concerns about its ability to remain solvent without further intervention.(Kumparan.com, 2021)

Meanwhile, PLN (Perusahaan Listrik Negara), which oversees Indonesia's electricity supply, faced an enormous debt load of Rp 500 trillion (approximately USD 35 billion). Much of this debt came from borrowing to finance the ambitious 35,000 MW electricity infrastructure project, a large-scale initiative aimed at boosting Indonesia's power capacity. In an effort to improve PLN's financial situation, it is absolutely inevitable to push for a 50% reduction in capital expenditures (capex) to reduce unnecessary spending, focusing only on essential investments. Additionally, PLN was encouraged to renegotiate its debt terms, particularly by securing lower interest rates to alleviate the financial burden. The company also worked to renegotiate *its take or pay* electricity purchasing agreements, reducing its obligations from Rp 60 trillion to Rp 25 trillion. This

renegotiation was vital for easing PLN's cash flow issues, as these contracts required the company to pay for electricity, regardless of whether it was used.

After a few years, PT PLN (Persero) achieved a remarkable milestone by being listed among the top 10 best companies in Southeast Asia, according to Fortune 500 Southeast Asia 2024.. This success is the result of a comprehensive digital business transformation over the past three and a half years, encompassing all processes from power generation, transmission, distribution, to customer service systems. This full-scale digitalization has made PLN more resilient and agile in serving the public. The company reported revenues of USD 32.01 billion with a net profit of USD 1.44 billion, along with total assets valued at USD 108.51 billion. This achievement is credited to the hard work of all employees who are dedicated to providing the best service. PLN remains committed to continuing its digital transformation and aims to be part of the top 500 global companies while supporting the government in providing reliable and sustainable energy.

Also, PT Perusahaan Listrik Negara (PLN) recently received the award for the Largest Taxpayer Group from the Directorate General of Taxes (DJP) of the Ministry of Finance on July 26, with a contribution of Rp 52.39 trillion in 2023. The DJP noted that national tax revenue for the year reached Rp 1,869.2 trillion and expressed gratitude to all parties involved in achieving this significant milestone. This accomplishment was attributed to the collective contributions of taxpayers and the collaboration between the government and society, with a call for continued support to enhance contributions in 2024. In 2023, PLN's tax contribution showed a remarkable 15.6% year-on-year increase from Rp 45.31 trillion in 2022. The company is committed to maintaining strong financial performance and making substantial contributions to the economy through transparent management practices(www.kontan.co.id, 2023). This significant tax contribution was supported by electricity sales growth, which reached 288.44 terawatt-hours (TWh), a 5.36% increase from 273.76 TWh in 2022. Additionally, PLN's total revenue surged to Rp 487.38 trillion in 2023, up from Rp 441.13 trillion the previous year. The company has also focused on transforming financial management through strategic initiatives such as cash war rooms, centralized

payment, centralized planning, and notional pooling, leading to more efficient and accountable financial management that positively impacts national economic growth. (Trianto, 2024)

PT PLN (Persero) has successfully implemented a transformation that has significantly enhanced its innovation and positivity in both business processes and human resource development. This transformation encompasses power generation, transmission, distribution, and customer service, enabling the company to be more agile in responding to the challenges posed by a rapidly evolving environment. Over the past three years, the ongoing transformation has notably improved employee competencies, resulting in the company receiving an international award in the Contribution to HR Community category at the Asia HRD Awards 2023 held in Cyberjaya, Malaysia.. This accolade recognizes PLN's achievements in building an innovative organization centered on enhancing employee skills. The award honors individuals who have made impactful contributions to human resource development, as acknowledged by industry practitioners.

Despite PT PLN (Persero) successfully implementing transformations that drive innovation in its business processes and human resource development, its financial performance

continues to face challenges. While the company has reported significant tax contributions and increased electricity sales, it remains reliant on debt to finance large projects. This reliance raises concerns about its long-term financial health, particularly in the face of market fluctuations and regulatory changes that could impact its revenue. Additionally, rising operational costs and the ongoing need for investment present challenges that must be addressed to ensure the company's sustainability in the future

The researcher will conduct a study on financial distress at PT PLN (Persero) to gain a comprehensive understanding of the underlying factors contributing to the company's current financial challenges. This research will focus on identifying key indicators of distress, such as debt-to-equity ratios, cash flow issues, and operational inefficiencies. By thoroughly analyzing these factors, the researcher

aims to provide stakeholders with targeted strategies to mitigate risks and enhance financial stability. This investigation will not only shed light on PLN's financial health but also offer actionable recommendations for improving its overall performance in the competitive energy sector.

THEORITICAL REVIEW
Digital Business Transformation

Digital transformation offers the potential to promote inclusive growth by generating new economic opportunities and enhancing productivity (Kristyanto et al., 2021). However, there are concerns that its advantages may not be shared equally, especially among disadvantaged groups who may lack access to technology or the necessary digital skills. The way businesses manage their strategy has undergone significant changes due to the widespread adoption of digital transformation as a fundamental phenomenon in the business sector. The use of digital technology to completely revamp an organization's operations and consumer interactions is known as "digital transformation." This entails incorporating technology into every facet of the company's operations, including customer support, internal operations, and marketing plans (Krymska et al., 2024). Deep restructuring is a part of this process, which has the power to upend conventional business paradigms and make businesses more adaptable to shifts in the market and chances for innovation. A fundamental element of digital transformation involves moving away from traditional business paradigms and toward more innovative and astute tactics. This entails using data to assist in decision-making, automating operational procedures. Businesses now face greater pressure to adapt as a result of globalization in the last few decades. In order to not only survive in competitive situations, but to grow, organizations must effectively integrate. Cooperative tools and digital processes are the only ways to accomplish efficient integration. As a result, digital transformation (DT) has become even more significant. Studies highlight the need for DT to be incorporated into current business viewpoints since this subject touches on many different business sectors and covers much more ground than only changes in technology (Kraus et al., 2021). Hess states that in

order to attain organizational agility, successful business transformation requires concurrently utilizing and exploring its potential.Businesses.

Digital transformation (DT) goes beyond simple changes and fundamentally alters corporate operations, products, and processes, sometimes leading to entirely new business model. Organizations of all types and sizes must be prepared to align or replace their existing business processes, even those they are unfamiliar with. This shift must happen rapidly, requiring changes in leadership, culture, mindsets, and attitudes toward risks, along with the adoption of new technologies and approaches, and a readiness for uncertainty and continuous change .(Kraus et al., 2022)

Financial Distress

Financial distress occurs when a company faces a significant deterioration in its financial condition, making it difficult to meet short-term obligations like accounts payable or interest expenses. It is considered a stage of financial decline that precedes bankruptcy or liquidation. This situation arises when the company's operational cash flow is insufficient to cover current liabilities, forcing the company to take corrective measures.(Sari & Diana, 2020). Financial trouble begins when a company is unable to meet its debt obligations, especially short-term liabilities related to liquidity and solvency. Financial distress is marked by the organization's inability to fulfill its debts, occurring when the company lacks sufficient funds to maintain its operations..(Hidayat et al., 2021)

Brigham & Houston in (Dharma Swara, 2021) , disorder or inconsistency in a company's financial management is often the earliest indication of financial difficulties. This begins with increasing liquidity pressures and continues as falling asset values make it more challenging for the business to meet its debt obligations. According (Silanno, Glousa Lera & Loupatty, 2021) , A company's failure to fulfill its financial obligations is a major sign of ongoing liquidity issues, making financial distress apparent. This process can be viewed from three angles: the time frame, the severity of hardship, and the stages of development. Financial distress is divided into four categories. Category A represents very severe or critical financial hardship.

Category B involves high financial difficulty, which is deemed hazardous. Category C refers to moderate distress, while Category D reflects low or minimal financial difficulty..(Rivandi & Ariska, 2019)

Springate Model

The Springate model is one of the models in Multiple Discriminant Analysis (MDA) used to assess a company's bankruptcy risk. Unlike models such as the Z-Score, which rely on a single ratio, the Springate model employs multiple financial ratios for a more comprehensive analysis of a company's financial health. Developed by Gordon L.V. Springate in 1978, this model was based on research conducted on twenty manufacturing companies in Canada.(Gunawan & Debbianita,2022). The Springate model can differentiate between successful and struggling organizations by employing stepwise multiple discriminant analysis to identify the most significant among 19 commonly used financial ratios. Following a similar approach to Altman (1968), Springate identified four key ratios believed to effectively distinguish between companies experiencing financial distress and those that are not..(Suwandani & Nuzula, 2017). While various bankruptcy analysis methods exist, the Grover and Springate models are among the most commonly used tools for bankruptcy analysis. One reason for their popularity is that these analytical methods can provide a relatively high level of accuracy in predicting a company's potential bankruptcy when applied to both models..(Gracia et al., 2018). The Springate model is represented by the following formula;

$$S = 1.03\,A + 3.07\,B + 0.66\,C + 0.4\,D$$

where:

A = working capital/total assets

B = earnings before interest and taxes (EBIT)/total assets

C = Income before Tax (EBT)/Total current liabilities

D = Sales/total assets

S = Overall index

The ratio (A), or working capital to total assets, measures the liquidity of the business. A higher working capital relative to total assets indicates a stronger liquidity position for the firm. This working capital is calculated by subtracting current liabilities from current assets. Ratio (B), or EBIT to total assets, assesses the company's profitability by comparing Earnings Before Interest and Taxes (EBIT) to total assets as reported on the balance sheet at the end of the accounting period. This ratio provides insight into the return on assets and overall financial performance..(Suwandani & Nuzula, 2017). The ratio (C), or Earnings Before Tax (EBT) to Total Current Liabilities, measures a company's ability to cover its short-term debt obligations. This ratio is calculated by comparing EBT to total current liabilities and is useful for management in determining the income available for paying down current short-term debt after interest expenses are deducted. .Ratio (D), also known as sales to total assets or total asset turnover, is an activity ratio that compares net sales to total assets. This ratio evaluates how effectively the company's total assets are utilized to generate revenue and sales.. (Suwandani & Nuzula, 2017)

The cutoff point for the Springate S-score in this model is 0.862. An S-score below 0.862 suggests that the company is likely to experience financial distress, while an S-score above 0.862 indicates that the company is already facing financial difficulties. The Springate S-Score Model boasts a 92.5% accuracy rate in predicting financial hardship. Other studies have also reported a high level of accuracy, noting that the Springate S-Score Model achieved a 90% accuracy rate in forecasting financial distress..(Tahu, 2019) . According to (Azwar, 2022), The models of Altman, Springate, Zmijewski, and Grover can be utilized to predict financial difficulties. Based on coefficient determination tests, the Springate model has the highest accuracy level among the other models, which makes it the most suitable prediction model for financial difficulty.

RESEARCH METHODS

Descriptive research gathers data, analyzes, interprets, and draws conclusions based on the analysis that has been conducted in order to present facts, situations,

variables, and phenomena that are occurring currently and present them as they are, without taking action or controlling the research object. This type of research was carried out in a case study of the firm PT .PLN (Persero). Since the study data is of the numerical variety, it is quantitative research using a descriptive technique. (Gunawan & Debbianita, 2022)

RESULTS AND DISCUSSION

Digital Transformation of PT PLN (Persero)

PT PLN (Persero) has successfully undergone a transformation that has enhanced business innovation and improved human resource capacity. This transformation, which covers power generation, transmission, distribution, and customer service, has made the company more agile in addressing modern challenges. The transformation over the past three years has resulted in significant improvements in employee competencies. As a result, PLN received international recognition with the Contribution to HR Community award at The Asia HRD Awards 2023 in Cyberjaya, Malaysia. This award acknowledges the implementation of innovative ideas with a substantial impact on human resource development. The recognition highlights the efforts and dedication of PLN's workforce in driving the company's transformation and advancing electrification across Indonesia. The transformation emphasizes the need for agility and adaptability in responding to the rapid changes in today's world.

Source : PT PLN (Persero) /(www.plnntb.com)

Figure 1 Transformation of PT PLN (Persero)

Impact of Business Transformation on Financial Health

The business transformation of PT PLN (Persero), which was recognized with international accolades, played a critical role in improving the company's financial performance. This transformation involved enhancing business processes across generation, transmission, distribution, and customer service, while also focusing on developing the competencies of its workforce. The key outcomes of the transformation, which influenced financial health, include:

1. Operational Agility: The transformation helped PT PLN (Persero) become more adaptable in facing market challenges and disruptions. This contributed to improvements in Dimension D (sales to total assets) as the company became more efficient at converting assets into revenue.

2. Profitability Improvements: The focus on optimizing business processes and enhancing efficiency contributed to the recovery of Dimension B (EBIT to total assets), improving the company's overall profitability, especially in 2022.

3. Enhanced Liquidity Management: Despite ongoing liquidity challenges (Dimension A), the company's business transformation efforts improved its ability to cover short-term liabilities with earnings, as reflected in the improvement of Dimension C (EBT to current liabilities) in 2022 and 2023.

4. Innovation and Human Resources Development: The recognition for human resource development underlined the success of the company's strategic focus on workforce competence. This contributed to a more efficient organization capable of driving the financial recovery seen in the Springate S-Score improvements.

Later ,the Springate S-Score analysis for PT PLN (Persero) from 2019 to 2023 illustrates a trajectory of financial decline followed by a gradual recovery, which directly correlates with the company's strategic business transformation. By focusing on operational agility, profitability, and human resource development, PT PLN (Persero) has made significant strides in improving its financial health. While challenges such as liquidity remain, the positive trends in 2022 and 2023 indicate that the transformation efforts are moving the company toward greater financial stability.

Continued focus on these areas will be critical to achieving full recovery and long-term financial sustainability.

Financial Distress Analysis To Predicts Financial Health of PT .PLN (Persero)

To assess the financial performance of PT PLN (Persero) using the Springate S-Score Model, a multidimensional formula must be applied. This model evaluates a range of financial parameters, making it a robust tool for predicting a company's risk of insolvency. According to the Springate S-Score Model, as the S-Score increases, the likelihood of bankruptcy decreases, offering a clearer understanding of a company's financial health.

Table 2 Springate S-Score PT .PLN (Persero) Year 2019

Dimension	Dimension Score	Weight	S-Score
A	-0,0050039	1,03	-0,0051540
B	0,02786335	3,07	0,0855405
C	0,16396430	0,66	0,1082164
D	0,58753256	0,40	0,2350130
			0,4236159

Source : PT PLN (Persero) Financial Report

The Springate S-Score analysis for PT PLN (Persero) in 2019 indicates a state of financial distress, with a total score of 0.4236, well below the safe threshold of 0.862. The negative contribution from working capital (Dimension A) points to liquidity challenges, while modest positive contributions from earnings and sales (Dimensions B, C, and D) reflect some profitability and asset efficiency. However, these strengths were not sufficient to lift the company's overall financial health. The results highlight the need for improved liquidity management and better asset utilization to mitigate financial risks and ensure stability.

Table 3 Springate S-Score PT .PLN (Persero) Year 2020

Dimension	Dimension Score	Weight	S-Score
A	-0,03297910	1,03	-0,03396850
B	0,02794830	3,07	0,08580129
C	0,08214902	0,66	0,05421835
D	0,21739092	0,40	0,08695637
			0,19300751

Source : PT PLN (Persero) Financial Report

The Springate S-Score for PT PLN (Persero) in 2020 worsened to 0.1930 from

0.4236 in 2019, indicating a deeper financial distress. The negative contribution from Dimension A (working capital to total assets) increased, signaling more severe liquidity issues, while Dimension B (earnings before interest and taxes to total assets) remained stable. However, Dimension (earnings before tax to current liabilities) and Dimension D (sales to total assets) both saw declines, reflecting reduced ability to cover liabilities and decreased asset efficiency in generating revenue. These trends highlight a further deterioration in financial health and the need for urgent improvements in liquidity and operational management.

Table 4 Springate S-Score PT .PLN (Persero) Year 2021

Dimension	Dimension Score	Weight	S-Score
A	-0,0375815	1,03	-0,03870895
B	-0,0360839	3,07	-0,1107776
C	-0,3247002	0,66	-0,21430212
D	0,2718079	0,40	0,10872316
			-0,25506551

Source : PT PLN (Persero) Financial Report

The Springate S-Score for PT PLN (Persero) in 2021 shows a significant decline in financial health, with a total score of -0.2551, indicating severe financial distress and a heightened risk of bankruptcy. This represents a sharp deterioration compared to the previous years (2019 and 2020), signaling major financial challenges. The overall S-Score of -0.2551 indicates that PT PLN (Persero) faced significant financial distress in 2021, with deteriorating profitability, rising liabilities, and liquidity challenges. The negative contributions from Dimensions A, B, and C suggest that the company struggled with liquidity management, incurred losses or minimal earnings, and faced difficulties in covering liabilities. Although Dimension D (sales efficiency) remained positive, it was not strong enough to counterbalance the financial weaknesses.This alarming score indicates that PT PLN (Persero) needs urgent corrective measures to improve its liquidity, reduce liabilities, and restore profitability to avoid further financial deterioration

Table 5 Springate S-Score PT .PLN (Persero) Year 2022

Dimension	Dimension Score	Weight	S-Score
A	-0,0156764	1,03	-0,0161467

B	0,03353692	3,07	0,10295834
C	0,14849008	0,66	0,09800346
D	0,26928842	0,40	0,10771537
			0,2925305

Source : PT PLN (Persero) Financial Report

In 2022, PT PLN (Persero) showed significant financial recovery with a Springate S-Score of 0.2925, a notable improvement from the -0.2551 in 2021. While still below the safe threshold of 0.862, this score reflects positive progress. Key improvements include better profitability as seen in Dimension B (earnings before interest and taxes to total assets), which contributed 0.1030, and an enhanced ability to cover liabilities with earnings, as indicated by Dimension C. Liquidity also improved, though Dimension A remained slightly negative, suggesting some ongoing challenges. Overall, this recovery points to effective financial strategies, though further efforts are needed to achieve full financial stability.

Table 6 Springate S-Score PT .PLN (Persero) Year 2023

Dimension	Dimension Score	Weight	S-Score
A	-0,0070703	1,03	-0,0072824
B	0,02825269	3,07	0,0867358
C	0,2261240	0,66	0,1492418
D	0,29173499	0,40	0,116694
			0,3453892

Source : PT PLN (Persero) Financial Report

In 2023, PT PLN (Persero) showed continued financial improvement, achieving a Springate S-Score of 0.3454, up from 0.2925 in 2022. Key improvements include better liquidity management (Dimension A) and a stronger ability to cover liabilities with earnings (Dimension C). While profitability slightly declined (Dimension B), the company still generated positive earnings, and sales efficiency improved marginally (Dimension D). Overall, PT PLN (Persero) made steady progress toward financial stability, reflecting a positive trend in its recovery efforts.

CONCLUSION AND RECOMMENDATIONS

Based on the introduction and Springate S-Score analysis, PT PLN (Persero) has made notable progress in its operational and business transformations, yet financial distress remains a pressing concern. The company's 2021 Springate S-Score

of -0.2551 indicated a period of heightened financial vulnerability, primarily due to its significant debt burden, which was used to fund large-scale infrastructure projects like the 35,000 MW power expansion. Despite operational improvements and an eventual recovery reflected by a 2023 score of 0.3454, concerns persist regarding the company's long-term financial stability. PLN's heavy reliance on debt financing, coupled with cash flow constraints and rising operational costs, continues to challenge its overall financial health, despite increases in electricity sales and significant tax contributions.

To mitigate these risks and strengthen its financial position, PLN should prioritize comprehensive debt restructuring efforts, including renegotiating terms to lower interest rates and ease payment obligations. The company must also focus on optimizing capital expenditures, investing only in high-impact projects that offer strong returns. Additionally, PLN could benefit from diversifying its revenue base beyond electricity sales to reduce vulnerability to market fluctuations. Strengthening operational efficiency, continuing its digital transformation, and enhancing financial management practices will be crucial for ensuring long-term stability. By pursuing these strategies, PLN can better navigate financial challenges while positioning itself as a more resilient player in Indonesia's energy sector.

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