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Economy, Corporations, and Society in Transformation:

Financial Evidence and Cultural Reflections

Edited by
Prof. Dr. Gajendra Sharma
Assoc. Prof. Dr. Shagun Arora
PhD. Candidate Leonora Bruçaj

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Prof. Dr. Gajendra SHARMA

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CONTACT

Phone: +90 505 965 4613
e-mail: ceocongress.info@gmail.com
www.ceocongress.org

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PREFACE

In recent decades, economies and corporations across the globe have been exposed to unprecedented and overlapping transformations. Financial crises, global pandemics, supply chain disruptions, rapid technological change, and shifting socio-cultural dynamics have fundamentally reshaped how organizations operate, perform, and interact with society. These transformations have not only altered corporate strategies and financial structures but have also influenced broader social narratives, cultural expressions, and collective imaginaries. Within this context, understanding corporate performance requires an integrated perspective that goes beyond traditional financial metrics and embraces interdisciplinary insights.

The volume Economy, Corporations, and Society in Transformation: Financial Evidence and Cultural Reflections is conceived as a scholarly response to these evolving realities. This edited book brings together empirical financial analyses and interpretive social perspectives to explore how corporations and economies adapt to periods of crisis, uncertainty, and structural change. By combining quantitative financial evidence with qualitative cultural reflection, the book aims to offer a holistic understanding of transformation processes shaping contemporary societies.

A significant portion of the chapters in this volume focus on firm-level and sectoral financial performance, particularly within emerging economies. Indonesia, as one of the most dynamic and rapidly transforming economies in Southeast Asia, provides a compelling empirical setting for examining corporate resilience, financial health, and strategic adaptation. Several chapters employ well-established financial analysis models—such as Altman Z-Score, DuPont Analysis, and financial ratio approaches—to evaluate corporate stability, profitability, and sustainability across critical periods including the COVID-19 pandemic, global supply chain disruptions, and the ongoing transition toward electrification and digital platforms. These empirical contributions not only document financial outcomes but also reveal how firms respond to systemic shocks and long-term structural shifts.

Beyond national contexts, the volume also incorporates global corporate evidence, highlighting how multinational enterprises navigate uncertainty in an increasingly interconnected world. The inclusion of comparative and international cases enriches the analytical scope of the book and allows readers to identify common patterns and divergent strategies across different institutional and economic environments. In doing so, the book contributes to the broader literature on corporate resilience, crisis management, and performance evaluation in times of transformation.

Importantly, this volume does not treat economic and financial phenomena in isolation. One of its distinctive features lies in its interdisciplinary orientation, which recognizes that economic transformation is deeply intertwined with social meanings, cultural narratives, and symbolic representations. The final section of the book extends the discussion beyond financial data by engaging with literary and cultural analysis, illustrating how societal transformations are reflected, imagined, and contested within cultural production. This interdisciplinary dialogue underscores the argument that financial realities and cultural interpretations mutually shape one another in periods of profound change.

The intended audience of this book includes scholars, graduate students, and practitioners in the fields of economics, finance, management, sociology, and cultural studies, as well as policymakers seeking evidence-based insights into corporate and economic transformation. By offering diverse methodological approaches and contextual perspectives, the volume aspires to foster critical reflection and encourage future interdisciplinary research on the evolving relationship between economy, corporations, and society.

Ultimately, Economy, Corporations, and Society in Transformation seeks to demonstrate that understanding contemporary transformations requires moving beyond single-discipline analyses. By integrating financial evidence with cultural reflection, this book provides a comprehensive framework for interpreting how corporations function not only as economic actors, but also as social and cultural institutions embedded within rapidly changing societies.

Prof. Dr. Gajendra SHARMA
Assoc. Prof. Dr. Shagun ARORA
PhD. Candidate Leonora BRUÇAJ
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CHAPTER 1
Altman Z-Score Analysis and Evaluation of Construction Company PT Wijaya Karya Indonesia: Evidence of Financial Health During the President Jokowi Era

Wiwiek M DARYANTO
Institut IPMI, Jakarta, Indonesia
wiwiek.daryanto@ipmi.ac.id
Orcid: 0000-0003-3582-5857

Dian Utami WULANINGSIH
Institut IPMI, Jakarta, Indonesia
dian.wulaningsih@ipmi.ac.id
Orcid: 0009-0002-3605-3780

Laila Adinda SAFITRI
Institut IPMI, Jakarta, Indonesia
laila.safitri@ipmi.ac.id
Orcid: 0009-0006-6778-4980

Liana Mega Ristyani BEKTI
Sekolah Tinggi Manajemen PPM, Indonesia
liana_mrb_mmwm_92@student.ppmschool.ac.id
Orcid: 0009-0000-2587-8555

Samuel PD ANANTADJAYA
Institut IPMI, Jakarta, Indonesia
samuel.anantadjaya@ipmi.ac.id
Orcid: 0000-0002-9256-9186

ABSTRACT

State-Owned Enterprises (SOEs) in Indonesia play a critical role in implementing national development priorities, particularly in infrastructure development. Under President Joko Widodo's administration, the policy framework known as “Jokowinomics” has aggressively expanded infrastructure spending, with SOEs such as PT Wijaya Karya (Persero) Tbk (WIKA) serving as key contributors to strategic national projects. Despite their central role, many construction SOEs have faced increasing financial challenges due to project delays, high debt burdens, and the economic impacts of the COVID-19 pandemic. This study analyzes the financial condition of WIKA during the 2019–2024 period using the Altman Z-Score model to assess corporate financial distress. This study applies a quantitative descriptive approach using the Altman Z-Score model to evaluate financial distress. Secondary data were collected from WIKA’s audited financial statements for the years 2019–2024. Key financial indicators (X1–X4) were calculated annually to analyze trends and assess the risk of bankruptcy. WIKA went through considerable financial pressure between 2019 and 2023, as seen in the declining trends across key components of the Altman Z-Score: liquidity (X1), retained earnings (X2), asset productivity (X3), and financial structure (X4). By 2023, the company was clearly struggling with serious liquidity problems and growing dependence on debt. In 2024, there were some signs of improvement, especially in liquidity, asset performance, and capital structure.
Keywords: Altman Z-Score; Financial Distress; Infrastructure Development; PT Wijaya Karya (WIKA); State-Owned Enterprises (SOEs).

INTRODUCTION

Infrastructure development that is being intensified by President Joko Widodo's government increases the role of State-Owned Enterprises (SOEs) in the construction sector. However, in construction SOEs that rely on funding from loans, especially for projects with a long-term duration, this can cause considerable financial distress. Construction projects pose complex risks, such as payment delays that may prompt contractors to utilize loan funds for operational costs (Ivic, 2023). This shows that the construction sector is more vulnerable to leverage pressure compared to other industries. This condition is very relevant to the conditions faced by PT Wijaya Karya (Persero), Tbk. (WIKA), which in recent years has shown a trend of declining revenue, increasing liabilities, and the need to carry out debt restructuring.

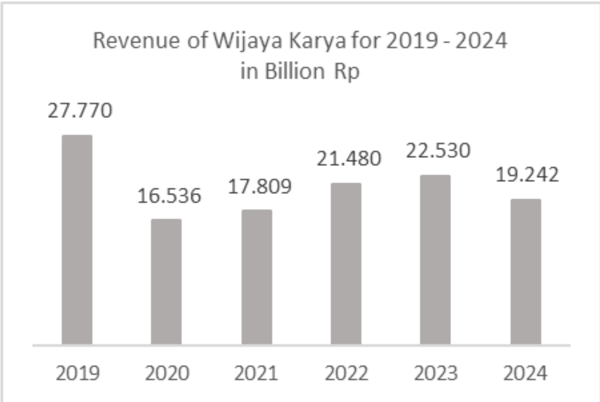


Figure 1. Revenue of Wijaya Karya in 2019 – 2024
Source : (WIKA, 2019-2024)

In Figure 1, it can be seen that there was a condition where WIKA's revenue tended to decline drastically in 2020, when the COVID-19 pandemic occurred, which caused a slowdown in the project. WIKA continues to take on large-scale infrastructure projects, and questions arise regarding the company’s financial resilience and its ability to maintain solvency amidst growing financial obligations (Vidada & Saridawati, 2021). This is considered important to assess the financial health of a company using the financial distress prediction model.

One effective method for evaluating the likelihood of financial distress is the Altman Z-Score model, which combines key financial ratios to estimate the risk of bankruptcy (Altman, et al., 2014). Applying this model to WIKA’s financial data from 2019 to 2024 will provide deeper insight into whether the company remains in a financially stable position or is moving toward a critical risk zone.

However, in some existing studies, most of the Altman Z-Score model is only used in the manufacturing sector, while only a few apply it to construction companies, especially state-owned enterprises that are characteristically different from manufacturing companies (Altman et al., 2014; Pranowo et al., 2010). There is also a small amount of research that examines financial pressures during post-pandemic conditions, especially companies that play a role in national strategic projects and are highly dependent on government payments.

In addition, the literature shows that each distress prediction model has advantages and disadvantages. The Altman Z-Score model tends to be effective in big companies, but has limitations when applied to non-manufacturing companies or companies with high debt intensity (Grice & Ingram, 2001). Meanwhile, the

Ohlson O-Score (Ohlson, 1980) and Zmijewski (1984) models are more oriented towards leverage and liquidity factors, while the Springate (1978) model presents a simpler calculation alternative. However, research in Indonesia shows that the Altman Z-Score is still the most common model in financial distress analysis due to its ease of calculation and ability to provide a clear classification of risks (Putri & Lestari, 2020).

Altman (1968) first introduced the model to predict corporate bankruptcy using key financial ratios. In Indonesia, Pranowo et al. (2010) examined financial distress on the Indonesia Stock Exchange, combining the Z-Score with logistic regression. Sari and Suryani (2015) applied the model to property and real estate firms listed on IDX, while Rachmawati and Syahriani (2020) focused on construction companies, highlighting the model's relevance to capital-intensive sectors like WIKA.

LITERATURE REVIEW

Financial Statement

Financial statements are formal written records that present the financial activities and performance of a company, typically used by investors, creditors, and management to assess the company's financial health and make informed decisions. They are usually prepared according to standardized accounting principles such as GAAP or IFRS to ensure consistency and comparability (PWC, 2020).

Financial statements typically include the balance sheet, income statement, and cash flow statement. As stated by Harahap (2013:105), these reports provide an overview of a company’s financial position either at a specific point in time or over a defined period. The financial position of a company refers to its condition on a particular date (reflected in the balance sheet) and its performance over a certain period (shown in the income statement). In this study, the financial data analyzed is based on WIKA’s annual financial reports from 2019-2024.

Financial Distress

Financial distress refers to a condition in which a company faces financial difficulties that prevent it from meeting its obligations, such as repaying debts or covering operational expenses on time. This situation indicates that the company’s financial health is deteriorating or in crisis, and it often serves as an early warning sign of potential bankruptcy (Altman, et al., 2017).

Financial distress can cause a company to default on its obligations, often leading to financial restructuring involving the company, its creditors, and shareholders. Typically, the firm is compelled to take actions it would not have considered under normal cash flow conditions. If not addressed, financial distress can escalate into insolvency, the inability to meet debt payments, which may eventually result in bankruptcy (Marpaung & Daryanto, 2021). Companies facing financial distress may respond in various ways, including:

1. Selling key assets
2. Merging with another company
3. Cutting back on capital expenditures and R&D
4. Issuing new financial instruments
5. Renegotiating terms with banks and creditors
6. Converting debt into equity
7. Filing for bankruptcy protection

Bankruptcy

Bankruptcy is a legal procedure that occurs when a person or organization is unable to repay their outstanding debts and seeks relief through the court. This process can be initiated by the debtor or, in certain cases, by creditors, and typically leads to either the liquidation of assets to settle debts or a restructuring of obligations to enable repayment over time (Christiani, 2021).

Altman Z-Score Model

Altman's bankruptcy prediction model (1968) utilizes the Multiple Discriminant Analysis (MDA) method, incorporating five key financial ratios: Working Capital to Total Assets, Retained Earnings to Total Assets, Earnings Before Interest and Taxes (EBIT) to Total Assets, Book Value of Equity to Total Liabilities, and Sales to Total Assets. For non-manufacturing companies and companies in general (generalize), Altman indicates bankruptcy using the formula:

$$Z = 6.56\,(X1) + 3.26\,(X2) + 6.72\,(X3) + 1.05\,(X4) \quad \ldots\ldots\ldots (1)$$

Where:

X1 = Working Capital to Total Assets
X2 = Retained Earnings to Total Assets
X3 = Earnings Before Interest & Taxes to Total Assets
X4 = Book Value of Equity to Total Liabilities

Table 1. Table criteria for Altman Z-Score

Z-Score	Market Value
Z < 1,10	Bankrupt
1,10 - 2,60	Grey Zone
Z > 2,60	Non-Bankrupt

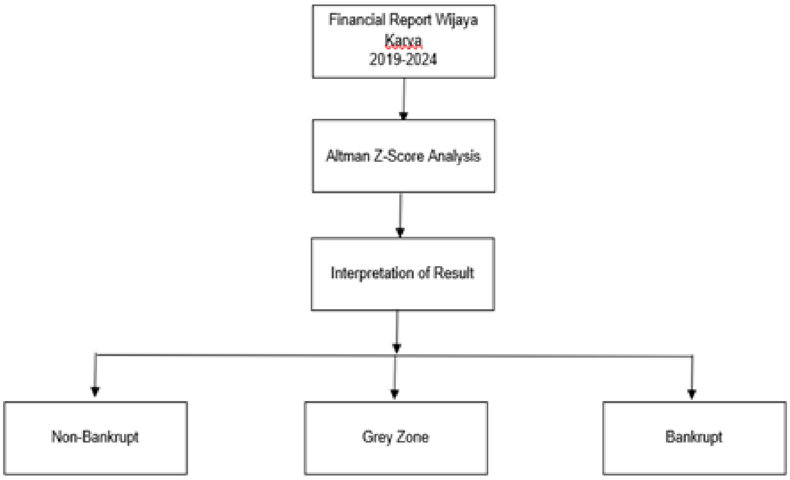
Source : (Winaya, et al., 2020)

RESEARCH METHODOLOGY

This research adopts a descriptive method with a quantitative approach. The descriptive quantitative approach involves analyzing the company's financial statements, which are then tabulated to assess whether the company falls into the category of financially healthy or distressed. The data used in this study are sourced from Wijaya Karya's annual financial reports, as published on the company's official Investor Relations website, covering the period from 2019 to 2024.

Conceptual Framework

The conceptual framework of this research is developed based on existing theories and findings from previous studies. The objective is to evaluate the financial health of Wijaya Karya using the Altman Z-score model as a tool to assess the risk of bankruptcy. As illustrated in Figure 4, the first step involves collecting annual financial data from Wijaya Karya's published financial statements. Next, the Z-score is calculated based on the collected data to estimate the likelihood of financial distress. The third step is to interpret the Z-score results and classify each year into one of three categories: safe zone, grey area, or distress zone. Finally, conclusions are drawn based on the Z-score analysis and its implications for the company's financial condition.



Variable Operational Definition
Working Capital to Total Assets (X1)

This ratio assesses a company's liquidity by comparing its net working capital to total assets. It is calculated by dividing net working capital by total assets and is commonly used by investors to evaluate how effectively a company manages its operations and short-term financial resources (Kurniawan & Daryanto, 2022). The formula for X1 is:

X1 = Net Working Capital / Total Assets

Retained Earnings to Total Assets (X2)

According to Daryanto et al. (2020), this ratio reflects the company's ability to generate profits through the effective use of its total assets. It is used to assess accumulated profits relative to the company's age, indicating the overall strength and stability of its earnings. The X2 formula is as follows:

X2 = Retained Earnings / Total Assets

Earning Before Interest and Tax to Total Assets (X3)

This ratio indicates how effectively a company uses its assets to generate income before interest and taxes (Kurniawan & Daryanto, 2022). The X3 formula is as follows:

X3 = EBIT / Total Assets

Book Value of Equity to Total Liabilities (X4)

This ratio reflects the company's capacity to fulfill its liabilities using the market value of its equity (common stock) (Kurniawan & Daryanto, 2022). The X4 formula is as follows:

X4 = Book Value of Equity / Total Liabilities

RESULT

Table 2. Result of Altman Z-Score 2019-2024

Altman Z-Score	2024	2023	2022	2021	2020	2019
X1	0,176	-0,116	0,047	0,003	0,056	0,193
X2	-0,145	-0,104	0,058	0,064	0,005	0,080
X3	0,031	-0,058	0,023	0,016	0,021	0,059
X4	0,188	0,038	0,126	0,191	0,346	0,416
Result	**1,093**	**-1,448**	**0,782**	**0,539**	**0,892**	**2,364**
Interpretation	**Bankrupt**	**Bankrupt**	**Bankrupt**	**Bankrupt**	**Bankrupt**	**Grey Zone**

Source : (Processed by Author, 2025)

Based on the Altman Z-Score results from 2019 to 2024 in Table 2, it is evident that the company's financial condition experienced a significant decline. In 2019, the Z-Score was 2.364, placing the company in the Grey Zone, meaning its financial condition was not entirely healthy but not yet critical. However, starting from 2020, the Z-Score consistently fell below the bankruptcy threshold (below 1.10), reaching its lowest point in 2023 at -1.448. This indicates that from 2020 to 2023, the company consistently remained at high risk of bankruptcy according to the Altman Z-Score interpretation standards. In 2024, the company's Z-Score improved to 1.093, placing it back into the Grey Zone. Although this is an improvement from past years, the score remains below the acceptable level of 2.60. It indicates that, while the firm is no longer classified as a bankrupt risk under the model, its financial health remains fragile and has not entirely recovered.

Overall, these results reflect that the company faced severe financial pressure throughout the period, which may have been caused by low profitability, increasing debt burden, and declining equity and asset values.

DISCUSSION

Ratio X1 (Working Capital / Total Assets)

Table 3. The Calculation of Ratio X1

Formula	2024	2023	2022	2021	2020	2019
Working Capital	Rp 11.215.218.797	-Rp 7.635.637.613	Rp 3.499.463.282	Rp 217.064.209	Rp 3.812.477.989	Rp 11.986.014.913
Total Assets	Rp 63.556.342.748	Rp 65.981.235.888	Rp 75.069.604.222	Rp 69.385.794.346	Rp 68.109.185.213	Rp 62.110.847.154
X1	**0,176**	**-0,116**	**0,047**	**0,003**	**0,056**	**0,193**

Source : (Processed by Author, 2025)

According to Table 3, the X1 ratio (Working Capital / Total Assets) measures the company's ability to satisfy short-term obligations with its available assets. In 2019, the X1 value was 0.193, showing a relatively strong liquidity situation, meaning that WIKA still had sufficient working capital relative to its total assets and was not experiencing substantial liquidity pressure at the time. However, in 2020, the X1 score fell rapidly to 0.056, then to 0.003 in 2021, and only slightly increased to 0.047 in 2022. This trend aligns with external conditions, where the COVID-19 pandemic heavily impacted the construction sector, causing project delays and disrupting the company's cash flow (Marpaung & Daryanto, 2021). In 2023, the X1 ratio even turned negative (-0.116), meaning that WIKA's current liabilities exceeded its current assets, signaling severe liquidity stress and difficulty in meeting short-term obligations.

This highlights that WIKA was in a critical financial condition, which is consistent with the broader situation where many state-owned construction companies underwent large-scale debt restructuring during this period. In 2023, Indonesia remained committed to massive infrastructure development, with an infrastructure budget allocation reaching approximately 455.8 trillion rupiah (nearly 30 billion USD), an increase of 22.2% from the previous year. The funds were utilized for various national strategic projects, including toll roads, housing, irrigation, ports, and the development of the new capital city (IKN) (AMRO, 2023).

By 2024, the X1 value improved to 0.176, indicating a recovery in working capital. This improvement could have resulted from restructuring efforts, capital injections from the government, or the realization of payments from delayed national strategic projects. However, even though the X1 ratio improved, this recovery should be assessed alongside other financial indicators to confirm the sustainability of WIKA’s financial performance.

Ratio X2 (Retained Earning / Total Assets)

Table 4. The Calculation of Ratio X2

Formula	2024	2023	2022	2021	2020	2019
Retained Earnings	-Rp 9.203.381.263	-Rp 6.865.135.999	Rp 4.372.391.037	Rp 4.457.008.744	Rp 348.575.904	Rp 4.984.656.548
Total Assets	Rp 63.556.342.748	Rp 65.981.235.888	Rp 75.069.604.222	Rp 69.385.794.346	Rp 68.109.185.213	Rp 62.110.847.154
X2	**-0,145**	**-0,104**	**0,058**	**0,064**	**0,005**	**0,080**

Source : (Processed by Author, 2025)

The X2 ratio (Retained Earnings / Total Assets) in Table 4 measures the company's ability to finance its assets through cumulative profits. A higher X2 indicates stronger internal financing and financial stability, while a lower or negative X2 suggests dependence on external debt or new equity.

In 2019, WIKA had an X2 ratio of 0.080, indicating a relatively healthy accumulation of retained earnings to support its assets. However, by 2020, this ratio dropped sharply to 0.005, and although it increased slightly to 0.064 in 2021, the values remained very low. Signaling that WIKA's profits were almost entirely depleted, leaving the company heavily reliant on external funding. The year 2019 was marked by uncertainty due to the national elections and a global economic slowdown, which caused many government and private construction projects to be delayed. This situation hindered the acquisition of new revenue and slowed the progress of ongoing projects (WIKA, 2019). In 2022, the X2 ratio dropped to 0.058, indicating that retained earnings did not improve and remained insufficient. By 2023 and 2024, the X2 ratio had shifted negative (-0.104 and -0.145, respectively), suggesting that WIKA's retained earnings had not only been depleted but had also entered a deficit. This suggests that accumulating losses considerably reduced shareholder value, affecting the company's financial position.

This situation corresponds with WIKA’s broader challenges, where heavy project financing needs, delays in payment from government or strategic projects, and broader financial pressures in the construction sector led to an increased reliance on debt (WIKA, 2025). The negative retained earnings also reflect why WIKA, like other Indonesian state-owned construction companies, pursued debt restructuring and required financial support during this period (Marpaung & Daryanto, 2021).

Ratio X3 (Earning Before Interest and Tax / Total Assets)

Table 5. The Calculation of Ratio X3

Formula	2024	2023	2022	2021	2020	2019
EBIT	Rp 1.986.001.949	-Rp 3.828.451.221	Rp 1.715.151.718	Rp 1.122.984.859	Rp 1.463.941.728	Rp 3.694.394.752
Total Assets	Rp 63.556.342.748	Rp 65.981.235.888	Rp 75.069.604.222	Rp 69.385.794.346	Rp 68.109.185.213	Rp 62.110.847.154
X3	**0,031**	**-0,058**	**0,023**	**0,016**	**0,021**	**0,059**

Source : (Processed by Author, 2025)

The Altman Z-score ratio X3 in Table 5, which measures Earnings Before Interest and Taxes (EBIT) divided by Total Assets, is a critical indicator of a company's ability to utilize its assets efficiently to generate earnings. Based on the data provided, the ratio demonstrates significant variation over the years.

In 2019, the X3 value of 0.059 represents a low level of profitability, generated by efficient asset utilization. However, over the next two years, this ratio dropped to 0.021 in 2020 and then to 0.016 in 2021, indicating that WIKA's operational performance was under increasing pressure. A slight improvement to 0.023 in 2022 offers a glimmer of recovery, but a dramatic drop to -0.058 in 2023 points to losses and severe financial distress.

With negative EBIT in 2023, WIKA faced operational losses that placed significant pressure on its business continuity and liquidity, reinforcing distress signals indicated by the overall Altman Z-Score. This condition requires strategic steps for restructuring and efficiency improvements to enable the company to recover and improve its financial performance (Ardiwinarta, *et al*., 2023).

By 2024, the X3 ratio rebounds to 0.031, signaling a recovery and better earnings performance. These fluctuations reveal a company that has faced significant challenges in maintaining financial stability, particularly in 2023 when earnings turned negative. The rebound in 2024 may suggest efforts toward stabilization and improved asset utilization. However, the overall trend underscores the importance of monitoring the X3 ratio closely, as consistently low or negative values could signal deeper financial difficulties.

Ratio X4 (Book Value of Equity / Total Liabilities)

Table 6. The Calculation of Ratio X4

Formula	2024	2023	2022	2021	2020	2019
Book Value of Equity	Rp 9.699.286.659	Rp 2.152.788.329	Rp 7.265.660.611	Rp 9.911.796.266	Rp 17.805.353.473	Rp 17.850.203.230
Total Liabilities	Rp 51.684.922.956	Rp 56.409.622.846	Rp 57.576.398.034	Rp 51.950.716.634	Rp 51.451.760.142	Rp 42.895.114.167
X4	**0,188**	**0,038**	**0,126**	**0,191**	**0,346**	**0,416**

Source : (Processed by Author, 2025)

The Altman Z-score ratio X4, which represents the Book Value of Equity divided by Total Liabilities, is a measure of a company's leverage and its ability to cover liabilities with equity. Based on Table 6, the ratio shows a consistent decline from 2019 to 2023, followed by a slight recovery in 2024.

In 2019, the X4 value of 0.416 indicates a strong financial position, with equity significantly covering liabilities. However, this ratio decreases to 0.346 in 2020 and further to 0.191 in 2021, signaling a weakening ability to manage liabilities with equity. By 2022, the ratio drops to 0.126, and in 2023, it reaches a concerning low of 0.038, suggesting heightened financial risk and reduced equity relative to liabilities. In 2024, the X4 ratio improves to 0.188, indicating a modest recovery in the company's financial position. This rebound suggests efforts to strengthen equity or reduce liabilities, but the overall trend highlights challenges in maintaining financial stability.

A higher X4 ratio is generally desirable, as it reflects a stronger ability to cover liabilities with equity, reducing financial risk. The fluctuations in this ratio emphasize the importance of monitoring leverage and equity levels to ensure long-term financial health.

CONCLUSION

Based on the Altman Z-Score ratio analysis, Wijaya Karya (WIKA) experienced significant financial distress between 2019 and 2023, reflected in sharp declines in liquidity (X1), accumulated retained earnings (X2), asset efficiency in generating earnings (X3), and equity-to-liability ratio (X4). The impacts of the COVID-19 pandemic, delays in national strategic projects, and a sharp increase in liabilities worsened WIKA’s financial condition, even leading to negative key ratios in 2023, signaling severe liquidity stress, accumulated losses, and heavy reliance on debt. Although there were signs of recovery in 2024, with improvements in the X1, X3, and X4 ratios, these developments should be interpreted cautiously, as they do not yet fully indicate a sustainable fundamental recovery, highlighting the need for further financial consolidation and restructuring efforts to strengthen long-term performance.

RECOMMENDATION

To address its financial challenges and ensure long-term sustainability, Wijaya Karya (WIKA) should prioritize comprehensive financial restructuring, including optimizing its capital structure, reducing dependence on short-term debt, and strengthening liquidity reserves. The company should accelerate the collection of receivables from national strategic projects, seek additional equity injections or strategic partnerships, and implement stricter cost controls to enhance profitability. Furthermore, WIKA needs to focus on improving operational efficiency, selectively pursuing projects with strong cash flow prospects, and enhancing risk management practices to better navigate market uncertainties. Consistent monitoring of key financial indicators and proactive communication with stakeholders will also be critical to restoring investor confidence and achieving a stable financial recovery.

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CHAPTER 2
Global Supply Chain Disruptions and Financial Resilience: A Decade of Evidence from Walmart Inc. (2015-2025)

T. Muhd. Redha VAHLEVI
Institut IPMI
redha.vahlevi@ipmi.ac.id
Orcid: 0009-0007-1331-8201

Wiwiek Mardawiyah DARYANTO
Institut IPMI
Wiwiek.daryanto@ipmi.ac.id
Orcid: 0000-0003-3582-5857

Aulia Rahmadiani PUTRI
Institut IPMI
Aulia.putri@ipmi.ac.id
Orcid: 0009-0009-6362-5108

ABSTRACT

This study investigates the relationship between the global supply chain disruptions and financial resilience of Walmart Inc. over the period 2015-2025. Using the Global Supply Chain Pressure Index (GSCPI) as a proxy for logistical stress. This research examines how fluctuations in supply chain at the global level influences Walmart's financial ratios including profitability, liquidity, and operational efficiency. Secondary data were collected from Walmart's annual reports and The Federal Reserve Bank of New York. Employing a time-series linear regression, this research aims to test whether global supply chain pressure leads to change in financial ratios performance during this period, particularly inventory turnover and return on assets (ROA). This research found that Walmart has capacity to absorb the turbulence from external shocks and ability to perform financial stability through supply chain management, cost strategy and logistic infrastructure. External volatility from supply chain does not have significant impact on Walmart's financial ratios performance. This study also found that advanced supply chain management capabilities can maintain financial stability even during global disruptions even global pandemic such as Covid-19 and Ukraine-Russian Political Tension. Finally, The study contributes not only to literature on supply chain and financial strategy by linking macro-level disruptions with the firm-level financial resilience, but also to offer new managerial insights for global retailers in navigating volatility and uncertainty.

Keywords: Global Supply Chain, Financial Ratios, External Shocks, Supply Chain Management.

INTRODUCTION

Supply chain management fundamentally shapes how customers and buyers experience companies offers. When supply chains are disrupted, many customers would suffer, and sometimes might be turned into serious problem. Supply chain Management (SCM) is a term coined by Keith Oliver in 1982 that has to do with the entire process of not only distributing information, materials, and products but also getting services to the intended customers around the World (Mangan, 2021). Supply chain is a network of companies that work together to create and deliver a product to their customers. These companies typically include suppliers, manufacturers, distributors, retailers, and supporting entities (Pujawan, 2010). In essecence, supply chain represents an integrated process that tranforms raw materials into finished goods and distributes them to customers through interconnected stages of production and delivery.

A global supply chain refers to an interconnected network of suppliers, manufacturers (producers), and distributors across multiple countries that enables the flow of materials, products, information and financial resources from raw material origin to end-customer, under the conditions of international sourcing, production and delivery (Lu & Swaminathan, 2015). Therefore, global supply chain management is the backbone of the modern economy and capitalism. It enables lower cost, access to more diverse markets and promote innovation by collaborating business & enterpirses internationally, thus, those ventures can share technology, ideas, and expertise. The global supply chain is crucial for sustaining availability of goods and service around the globe. However, this system also expose the global economy into some challenges, particularly when any disruption occur. Big impact events like Covid-19 pandemic, natural disasters, or political conflicts can result in delays and shortages of the availability of products at the macro-level.

Recently, Global supply chains have become increasingly complex and super-interdependent that could expose firms to higher levels of vulnerability in the face of economic shocks, geopolitical tensions, and global health crises. The Covid-19 Pandemic, container shortages, and the Russia-Ukraine conflict have showed that disruptions in the logistics and input availability can negatively impact the entire global production network, rising costs (logistic costs), inventory levels, and ultimately corporate financial performance as those things should be reflected in the corporates’ financial statements and perfomance (Mangan, 2021). In this context, Walmart, as one of the global retailer (whose operations rely on extensive sourcing, warehousing, and distribution systems), could be a good representative for understandisng financial consequences of supply chain volatiliy or disruptions.

Previous study have examined either operational or financial impacts of supply chain disruptions. For example, Ambulkar et al (2023) examined how supply chain disruptions that occurs frequently could influence the firm financial performance and found that that negative association between the frequency of supply chain and financial performance is stronger when firms are using exploration competencies. On the other hand, Ginn and Saadaoui (2025) that used US companies financial leverage data (debt-to-equity ratio) from 1998:Q1 to 2024:Q2 found that disruptive supply chain shock negatively affects leverage with statistically significant results with the LP (Local Projection) models. Their research also suggest that a disruptive supply chain shock via reduction (an increase) in output (inflation) accompanied by lower leverage ratio.

Research on supply chain disruption on the firms’ performance have increasingly important due to their significant economic repercussion. Other research conducted by Hendricks & Singhal (2003) conculded that there is an adverse effects of supply chain disruptions on the financial health. Furthermore, Hendricks & Singhal (2005) conducted a research to examine the impact of supply chain glitches on operating performance of publicly traded firms and found that supply chain glitches are associated with negative operating performance of the firm. They also found that firms could not quickly recover from the negative economic consequence of glitches. They stated in their writing that during the two-year time period after the glitch announcement, operating income, sales, total cost, and inventories do not improve.

However, further study are required as there was limited evidence that links macro-level supply chain pressures to firm-level financial ratios (performance) over an extended period. This research aims to fill that gap by examining the relationship between global supply chain pressure and Walmart's financial performance from 2015 to 2025, using the Global Supply Chain Pressure Index (GSCPI) as a proxy for global supply chain volatility. By evaluating key financial ratios such as profitability, liquidity and efficiency, this research is expected to identify how external shocks in global logistics influence Walmart's financial performance and resilience.

The findings of this study are expected to contribute to the current growing literature on supply chain finance by integrating macroeconomic indicator with corporate financial data. Furthermore, the research could provide managerial implications for multinational retailers in developing strategies to maintain financial performance in the realm of global supply chain disruptions.

1. THEORETICAL BACKGROUND

1.1. Global supply chain

A global supply chain refers to an integrated network of suppliers, logistics, manufacturers, distributors and retailers that operate across the globe to deliver products to customers. The International Labour Organization (2024) defines global supply chaiss as cross-border organization of the activities required to produce goods and services and bring them to consumers through inputs and various phases of development, production, and delivery. Additionally, this definition also includes foreign direct investment (FDI) by multinational enterprises in wholly owned subsidiaries or in joint ventures in which MNE is responsible for employment relationship.

1.2. Supply chain pressure and disruptions

Supply chain pressure reflects the rate or level of stress and disruption occuring within global logistic systems that includes shipping delays, capacity constraints, transportation & logistic cost spikes, and other upstream shortages. For instance, Covid-19 had been successfully increasing challenge for the global supply chain. İn the 2020 and 2021, when the Covid-19 spread across the globe, there was a serious problem occured on the global supply chain. Many manufacturing companies found it was difficult in acquiring raw materials. Cross-border freight volumes declined, accompanied by a drastic surge in transportation costs.

The Global Supply Chain Pressure Index (GSCPI), developed by the Federal Reserve Bank of New York, serves as a comprehensive macroeconomic indicator that is expected to capture such pressures through variables that are including shipping costs, delivery times, and other challenges in related with supply and demand imbalances (imbalance in the flow of goods).

The chart below (Figure 1) is the Global Supply Chain Pressure Index from January 2000 until July 2025. The chart shows that GSCPI increased significantly on December 2019 when there was global pandemic and reach its highest level at January until February 2022 when political tension among Russian and Ukraine was emerged.

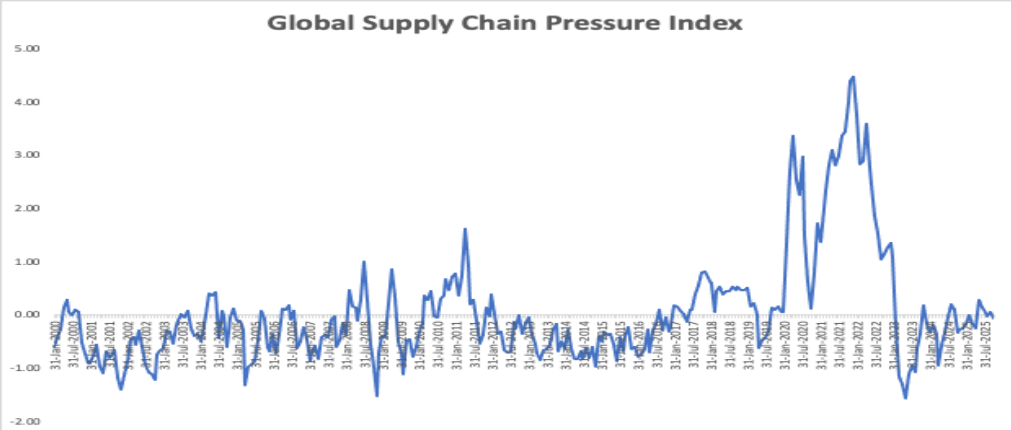

Figure 1
Global supply chain pressure trends 2000-2025.
Source: Federal Reserve Bank of New York

1.3. Financial Performance

Financial performance represents a firm's ability to generate profit, manage its liquidity & leverage, and operate efficiently to create long-term value. It is commonly measured through profitability ratios (Return on Assets, Net Profit Margin), liquidity ratios (Current Ratio), and efficiency ratios (Inventory Turnover, Total Asset Turnover). Based on standard financial theory, strong financial performance could indicate better operational management, efficient resource allocation & utilization, and effective cost control. In supply chain-intensive industries such as retail, financial performance is especially sensitive to volatility in inventories levels, logistic efficiency, and procurement stability.

1.4. Theoretical Linkage Between Supply Chain Pressure and Financial Performance

Supply chain disruption and pressure can influence a firm's financial performance through several theoretical mechanisms including cost escalation, operational efficiency, and risk propagation. Jin (2017) argues that disruptions and constraints in supply chain could have negative impact on procurement costs, decrease inventory availability, and impede production flow. These things could negatively influence profitability and reduce asset utilization efficiency. These operational frictions often force firms to maintain higher levels of inventory stock or extend lead times by increasing working capital requirements and stressing liquidity positions. In addition, Duong (2024) highlights that supply chain pressures generate a ripple effect, where delays and shortages at upstream nodes propagate across the entire network that could affect revenue and costs. For giant retailers, such as Walmart, increasing supply chain pressure can directly affect its financial performance metrics such as inventory turnover, total asset turnover, and profit margin. In summary, theoretical and empirical research agree that higher supply chain pressure affects financial performance by creating inefficiencies, increasing costs, and constraining operational responsiveness.

2. RESEARCH DATA & METHODOLOGY

2.1. Research design and data sources

This study employs a quantitative longitudinal design by utilizing secondary data ranging from 2015-2025. The objective is to examine how the impact of global supply chain pressure on Walmart's financial performance proxied by selected financial ratios. The data used for this research are such as following:

- **Global Supply Chain Pressure (Independent Variable):**
  Measured using the GSCPI (Global Supply Chain Pressure Index) which are published by the Federal Reserve Bank of New York, which aggregates indicators include shipping delays, transportation costs fluctuation, extending delivery times, and international freight volumes.
- **Financial Perfmance Indicators (Dependent Variables):**
  Financial performance indicators are financial ratios calculated from Walmart's Annual Reports and 10-K filings.

2.2. Variables and measurements

2.2.1. Independent Variable

Global Supply Chain Pressure Index (GSCPI): A standardized composite index reflecting global logistics pressure.

2.2.2. Dependent Variable

This research is conducted by using financial ratios such as Return on Asset (ROA) that describes the ability of company in utilizing its asset to generate profit, Net Profit Margin (NPM) which reflects a company's overall cost efficiency that could be an indicator of how strong company to absorb and manage increasing logistics cost due to global supply chain pressure.

This study also uses ITO (Inventory Turnover) to mesasure how Walmart could perform efficiency in inventory management during the external pressure and TATO (Total Asset Turnover) to measure the Walmart's effieciency in utilizing its asset during supply chain pressure.

Current Ratio is also included as dependent variable as it reflects how supply chain disruption that results in rising inventory levels and delay in shipment affects Walmart's ability to meet its short-term obligations.

Table 1:

Financial Ratio: Formula and Description

No	Dependent Variable	Formula	State Results as	Description
1	Return on Asset (ROA)	$\frac{Net\ Income}{Total\ Asset}$	Percent	Ability of the company in utilizing its asset to generate profit.
2	Net Profit Margin (NPM)	$\frac{Net\ Income}{Revenue}$	Percent	Reflecting a firm's overall cost efficiency and its ability to convert revenue into bottom-line profit. Under supply chain pressure, it is an indicator of firm's ability to abrorb and manage rising logistics and procurement costs.
3	Inventory Turnover (ITO)	$\frac{Cost\ of\ Sales}{Inventory: 365}$	Days	Inventory Turnover (Days) is a measure of how long inventory stays before being sold. Under supply chain pressure, ITO could be signal as delay and inefficiencies as the results of disruptive logistics flow.
4	Total Asset Turnover (TATO)	$\frac{Sales\ of\ Revenue}{Total\ Assets}$	Times	Measures how efficiently a company uses its assets to generate revenue. Under supply chain disruptions, this ratio reflects how disruptions in sourcing, transportation, and inventory flow reduce a firm's ability to convert assets into revenues.

5	Current Ratio (CR)	$\frac{Current\ Asset}{Current\ Liabilities}$	Percent	Measures a firm's short-term liquidity position. This ratio reflects how rising inventory levels, delayed shipments, and higher working-capital needs affect the frm's ability to meet short-term obligations.

(Source: Anthony et al, 2011)

2.2.3. Data analysis technique

This research employs simple linear regression for each financial ratios against GSCPI that results in five separate regression models.

$$Y_t = \alpha + \beta . GSCPI_t + \varepsilon_t$$

Where:

- Y_t = ROA, NPM, ITO, TATO, CR
- $GSCPI_t$ = Global Supply Chain Pressure Index in year *t*
- β = coefficient capturing supply chain pressure sensitivity
- ε_t = Error term

This analytical approach quantifies whether increases in global supply chain pressure are associated with deterioration or improvement in Walmart's operational efficiency, liquidity, and profitability metrics of perfomance over a decade (2015-2025).

3. RESULTS AND DISCUSSION

3.1. Regression results

This research conducts linear regression to examine whether stress from global supply chain pressure proxied by GSCPI has a measurable impact on Walmart's financial performance over a decade (2015 – 2025). Five financial ratios include ROA, NPM, TATO, ITO, and CR were tested individually as dependent variables.

The summary of results suggests that none of the dependent variables statistically significant are impacted from global supply chain pressure at the 5% level. The p-values for all the slope coefficients exceed 0.15 and R^2values are consistenly low (ranging from 0.02 – 0.21). The results also suggest that fluctuations in GSCPI do not strongly explain variations in Walmart's financial ratios during the period.

Table 2:

Coefficient, P-Values, R-Squared and Interpretation of Result

No	Dependent Variable	Coefficient (β)	P-value	R^2	Interpretation
1	Return on Asset (ROA)	-0.005261	0.156	0.210	Negative effect, not significant.
2	Net Profit Margin (NPM)	-0.001840	0.226	0.158	Negative effect, not significant.
3	Inventory Turnover (ITO)	0.858600	0.208	0.169	Positive effect, not significant.
4	Total Asset Turnover (TATO)	-0.032199	0.342	0.101	Negative effect, not significant.
5	Current Ratio (CR)	0.009901	0.623	0.028	Positive effect, not significant.

3.2. Interpretation of results

3.2.1. Profitability Indicators (ROA and NPM)

Both profitability indicators (ROA & NPM) exhibit negative coefficients that suggest higher supply chain pressure tends to coincide with decline in profafability. However, the effects are not statistically significant ($p>0.05$) and the explanatory power of models is weak with R-square is 0.21 for ROA and 0.158 for NPM. These results shows that fluctuations in global supply chain do not materially influence Walmart's profitability. In other words, the profitability performance of the company should be shaped by internal cost strategy.

3.2.2. Liquidity Indicator (Current Ratio)

The Current Ratio shows a positive but insignificant relationship with GSCPI ($\beta = 0.0099$; $p = 0.623$). The very low R^2 (0.028) demonstrates that pressure on global supply chain have almost no explanatory power for Walmart's short-term liquidity. It shows that Walmart has stable working capital policies and strong negotiating power with suppliers that could limit short-term financial volatility.

3.2.3. Efficiency Ratios (TATO and ITO Days)

TATO shows negative coefficient but not significant ($\beta= -0.0322$; $p = 0.342$) that indicates supply chain pressure does not meaningfully affect Walmart's overall asset utilization efficiency. ITO Days exhibits a positive but insignificant coefficient ($\beta = 0.8586$; $p = 0.208$). Although the direction is consistent with the expectations (higher supply chain pressure may lengthen inventory cycles), but the effect remains statistically weak. These results indicate that Walmart has advanced logistics infrastructure, diversified sourcing network, and technology that could provide a strong buffer against global disruptions.

3.3. Discussion

The collective results of this study show a clear pattern; global supply chain pressure does not exert a statistically significant impact on any of Walmart's key financial ratios. There are several factors that could be taken into account which may explain this results:

1) **Walmart's Sclae and Vertical Integration:**
   Walmart operates one of the world's most sophisticated supply chain management systems. Its scale advantage, multi-sourcing strategies, and süper-extensive distribution networks are able to dilute the financial impact of global disruptions.

2) **Strong Internatl Capabilities:**
   Walmart's profitability and operational efficiency metrics appear to be strongly driven by internal cost management (cost control, pricing, logistic optimization) than external pressures.
3) **Absorption of Global Shocks:**
   Even during the periods of extreme global disruptions (e.g., pandemic-era port congestion, shipping delays, and logistic costs spike), Walmart's financial ratios remianed stable.

3.4. Summary

In summary, the empirical analysis during the period demonstrates that while global supply chain pressure introduces operational challenges worldwide, it does not significantly affect Walmart's financial performace. The statistical results show Walmart's reputation as a highly resilient and operationally robust retailer that has magnificent capability in absorbing global disruptions without substantial financial deterioration.

4. Conclusion & Recommendation

4.1. Conclusion

This research examined the impact of global supply chain pressure (proxied by GSCPI) on Walmart's financial performance from 2015 to 2025. Five financial ratios were selected and tested (ROA, NPM, CR, TATO, and ITO Days) using simple linear regression.

The result show that **none of the financial ratios have a statistically significant relationship with GSCPI.** All p-values exceed the 0.05 threshold, and the R-square values remain low in the five different models. Although some coefficient follow expected directions (e.g., higher supply chain pressure slightly decreasing profitability and lengthening inventory cycles), the effects are very small and statistically insignificant or meaningful.

These findings indicate that Walmart is highly resilient to global supply chain pressure (disruption) that might due to its cost strategy, supply chain management, and logistic infrastructure. As the result, external supply chain volatility does not translate into measurable changes in Walmart's profitability performance, liquidity, and operational effieciency. The main implication is that large retailers with advanced supply chain management (Anthony, Hawkins, & Merchant, 2011) capabilities can maintain fnancial stability even during global disruptions. Future research may expand the model by adding more macroeconomic variables or using higher-frequency data to capture short-term fluctuations.

4.2. Recommendation

Companies should strengthen supply chain resilience by diversifying sourcing, improving inventory visibility, and making long-term logistic partnership to endure their performance from external shocks. Investing in digital monitoring supply chain systems and scenario-based planning will help company to perform in the global supply chain disruption.

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CHAPTER 3
Measuring Mitra Adiperkasa Active TBK Financial Performance during COVID-19 using DuPont Analysis

Ivan Gianetti WIRAKARTAKUSUMAH
Institute IPMI, Indonesia
ivan.wirakartakusumah@ipmi.ac.id
Orcid: 0009-0009-6931-6728

Wiwiek Mardawiyah DARYANTO
Institute IPMI, Indonesia
wiwiek.daryanto@ipmi.ac.id
Orcid: 0000-0003-3582-5857

Patma Ningrum Tri UTAMI
Institute IPMI, Indonesia
patmaningrum.utami@ipmi.ac.id
Orcid: 0009-0007-4982-2231

ABSTRACT

The COVID-19 pandemic in Indonesia occurred from March 2020 through June 2023. Mitra Adiperkasa Active was initially affected but demonstrated significant recovery after a few years. This improvement is reflected in the company's revenue growth from Rp 4,781 Billion in 2020 to Rp 17,184 Billion in 2024. The purpose of this study is to analyze and measure the financial performances of Mitra Adiperkasa Active during 2020 through 2024 using The DuPont analysis method. This method employs the Debt to Equity ratio, Total Assets Turnover ratio and Net Profit Margin ratio to assess financial performance. The findings show that from 2020 through 2024, Mitra Adiperkasa Active successfully maintained profitability and strengthened its financial resilience in the post-pandemic period. The company recorded an average Net Profit Margin of 6.8 %, Total Assets Turnover ratio of 1.19, and Equity Multiplier ratio of 1.75 in these years. The DuPont Analysis revealed an average Return on Equity (ROE) of 0.15 % in these years. These results indicate that Mitra Adiperkasa Active was able to sustain strong performance through efficient asset utilization and minimal debt exposure, even during the COVID-19 crisis. This study can serve as a financial reference for retail managers to better understand key financial indicators and make informed strategic decisions for business sustainability.
Keywords: Retail, Financial Performance, Dupont Analysis

INTRODUCTION

PT Mitra Adiperkasa Active Tbk (MAPA) is a retail company focused on sports, lifestyle, and children's products. The company is part of the MAP Group, a major player in Indonesia's modern retail industry. Over the years, MAPA has grown through partnerships with various international brands such as Nike, Adidas, Puma, Skechers, and other global brands. Through a combination of mono-brand stores and multi-sports outlets like Sports Station and Planet Sports, the company has successfully established a strong presence in the national sports retail market. (PT Mitra Adiperkasa Active Tbk (2025). About us. MAP Active https://www.mapactive.id/id/about-us/company-overview/)

MAPA's business operations are widespread in major cities, with over 1,200 outlets. This network expansion strengthens the company's reach to consumers and makes it one of the largest retailers in the sports and lifestyle category. In addition to relying on physical stores, MAPA has also expanded its digital channels through e-commerce platforms to reach customers increasingly accustomed to online shopping. (PT Mitra Adiperkasa Active Tbk (2025). About us. MAP Active https://www.mapactive.id/id/about-us/company-overview/)

The research period focused on this paper is 2020–2024, encompassing the COVID-19 pandemic and the subsequent recovery period. MAPA had a huge, significant recovery from 2020 to 2024. Revenue increased from IDR 4,781 billion in 2020 to IDR 17,184 billion in 2024. This trend provides an important background for understanding the dynamics of MAPA's financial performance throughout 2020–2024. (MAP Active Tbk. *Annual Financial Reports* (2020-2024).https://www.mapactive.id/investor/financial-reports/)

Given MAPA's role in the retail industry and the changes in its performance during the 2020–2024 period, the company is a relevant object of analysis. The DuPont Analysis method was chosen to provide a comprehensive overview of the company's profitability, asset utilization efficiency, and capital structure during this uncertain time. By understanding these factors, the research is expected to provide clearer insights into MAPA's financial condition and strategies that support its business sustainability.

Few studies apply DuPont analysis to Indonesian retail firms during COVID-19 and the recovery year. This research fills this gap by providing the decomposition of ROE over 2020-2024 to understand operational versus leverage-driven recovery.

The purpose of this research is to measure MAPA’s financial performance across five years of dynamic market conditions, to understand the internal and external factors influencing profitability, efficiency, leverage, and to contribute to the literature on financial analysis of retail companies in emerging markets, particularly within Indonesia’s rapidly evolving consumer sector. This expanded analysis emphasizes MAPA’s strategic responses to economic pressures, shifts in consumer behavior, and structural changes in the retail landscape. This research's other objectives are to identify the main drivers of changes in MAPA’s ROE over the period, and to derive managerial implications for retail companies in emerging markets.

1. LITERATURE REVIEW

This research summarizes academic and practitioner literature on applying the DuPont framework to measure company financial performance, highlights studies focused on retail firms and Indonesian companies, and maps those lessons to analyzing Mitra Adiperkasa Active TBK or MAPA for 2020 to 2024. Key primary data for MAPA are the company's audited annual reports and financial statements from 2020 to 2024. (MAP Active Tbk. *Annual Financial Reports* (2020-2024).https://www.mapactive.id/investor/financial-reports/)

1.1 DuPont Analysis in Retail Industry

In the retail industry, profitability is influenced by product pricing, inventory management, expansion strategies, and the efficiency of supply chain systems (Brigham & Houston, 2021; Penman, 2013). Ross, Westerfield, and Jordan (2022) explain that financial ratio analysis, including the DuPont framework, enables managers and analysts to evaluate firm performance more effectively. Retail firms such as MAPA have relatively low margins compared to traditional manufacturing industries, making efficiency and asset turnover critical for achieving sustainable profitability.

Several studies have applied DuPont Analysis to evaluate retail firms:

- Andayani (2020) found that profitability in retail companies during COVID-19 was significantly influenced by asset turnover due to rapid changes in consumption patterns.
- Widayati (2021) noted that retail firms with strong digital capabilities recovered faster post-pandemic.
- International studies, such as those by Kumar and Sharma (2021), show that the DuPont model remains highly relevant for industries with thin margins and high working capital requirements.
- Surya (2024) provided a comprehensive studies understanding of how macro-level public health policies, like Pembatasan Sosial Berskala Besar (PSBB) and Pemberlakuan Pembatasan Kegiatan Masyarakat (PPKM), translated into financial outcomes for a major Indonesian transport company by using DuPont approach to highlight the structural financial shifts.

1.2 DuPont Analysis and ROE Decomposition

The DuPont Analysis, developed by the DuPont Corporation, decomposes ROE into three strategic components:

- Profit Margin. (Higgins, 2022)

Measures how much net profit is generated from sales. Higher margins indicate strong cost control and pricing power.

- Total Asset Turnover. (Higgins, 2022)

Measures how efficiently a company uses its assets to generate revenue. High turnover is desirable for retailers because it reflects effective inventory and asset management.

- Equity Multiplier (Financial Leverage). (Higgins, 2022)

Indicates how much debt the company uses relative to equity. Higher leverage increases ROE but also increases risk.

The DuPont model enables analysts to identify whether a company's ROE is driven primarily by operational efficiency, profit margins, or leverage. (Higgins, 2022)

These findings further justify the use of DuPont analysis for evaluating MAPA's performance.

2. METHODOLOGY

This research employs a descriptive quantitative design using secondary data from audited financial statements. Financial ratios for 2020 to 2024 are calculated and compared across years to evaluate performance trends. The methodology follows four analytical steps, calculate individual DuPont components for each year using extracted financial values, compute ROE annually based on the DuPont identity, compare year-to-year changes to highlight financial performance patterns, and interpret component-level contributions, identifying whether ROE changes were driven by profitability, efficiency, or leverage. (Higgins, 2022)

NPM = Net Income x Revenue

TATO = Revenue / Total Assets

EM = Total Assets / Total Equity

ROE = Net Profit Margin x Total Asset Turnover x Equity Multiplier

Using audited financial statements ensures data reliability. This research used Year-end assets and Year-end equity due to limitations in data availability and for consistency across reporting periods. The DuPont framework is widely validated in academic literature and financial practice, enhancing methodological credibility. Assumptions are minimized because the analysis relies solely on published numerical results.

The methodology is limited by the absence of interim data (quarterly reports), which may mask intra-year volatility. Additionally, the DuPont model does not capture qualitative factors such as brand strength, market competition, or strategic initiatives, though these factors may indirectly influence financial outcomes.

This research focuses exclusively on the financial performance of MAPA and does not include comparison with industry competitors. This research does not employ statistical testing, as the analysis is descriptive and exploratory in nature. The primary objective is to examine changes in financial performance through the DuPont framework rather than to test hypotheses or infer causal relationships.

3. RESULT AND DISCUSSION

a. Table 1. Net Profit Margin (NPM) Analysis

FY	Net Income (in IDR Bio)	Revenue (in IDR Bio)	NPM (%)
2020	4,3	4,781	0.09
2021	223	6,042	3.7
2022	1,173	9,801	11.97
2023	1,383	13,558	10.21
2024	1,338	17,184	7.79

Source: PT MAP Active Tbk. (2020,2021,2022,2023 & 2024) Financial Reports.

Profit margins reflect MAPA's operational efficiency and cost management.

- 2020: Profit margins fell sharply due to restricted store operations, weaker consumer spending, and higher logistics costs. Net losses or minimal profits were common in retail during the pandemic.
- 2021: Margins improved significantly as mobility restrictions eased. MAPA's return to profitability reflected strong demand in athleisure, footwear, and digital channels.
- 2022: The company experienced one of its highest post-pandemic margins due to strong sales rebound and efficient inventory management.
- 2023: Margins moderated as raw material and logistics costs normalized but consumer demand became more disciplined.
- 2024: Margin moderated but remained healthy relative to 2021-2022, driven by better cost control, improved supply chain efficiency, and stronger private-label performance.

Overall, MAPA's margin trends suggest a strong recovery trajectory after the initial shock of 2020.

b. Table 2. Total Asset Turnover (TATO) Analysis

FY	Revenue (in IDR Bio)	Total Asset (in IDR Bio)	TATO (Times)
2020	4,781	5,382	0.89
2021	6,042	5,315	1.14
2022	9,801	7,434	1.32
2023	13,558	10,803	1.26
2024	17,184	12,839	1.34

Source: PT MAP Active Tbk. (2020,2021,2022,2023 & 2024) Financial Reports.

Total asset turnover indicates how efficiently MAPA utilizes its assets, primarily inventory, store assets, and distribution infrastructure, to generate revenue.

- 2020: Sharp decline in sales reduced total asset turnover significantly
- 2021: Inventory optimization and reopening of stores drove a rebound in turnover.
- 2022: Total asset turnover reached one of its strongest points post-pandemic as consumer demand surged.
- 2023: Turnover declined slightly as growth normalized and the company expanded new stores, increasing asset base faster than revenue growth.
- 2024: Turnover stabilized due to improved sales consistency and better digital integration.

MAPA's total asset turnover remained a significant driver of overall ROE during the recovery phase.

c. Table 3. Equity Multiplier (EM) Analysis

FY	Total Asset (in IDR Bio)	Total Equity (in IDR Bio)	EM (Times)
2020	5,382	2,989	1.80
2021	5,315	3,231	1.65
2022	7,434	4,473	1.66
2023	10,803	5,877	1.84
2024	12,839	7,119	1.80

Source: PT MAP Active Tbk. (2020,2021,2022,2023 & 2024) Financial Reports.

The equity multiplier reflects MAPA's reliance on leverage to finance operations.

- 2020: The company maintained conservative leverage despite revenue declines. Lenders were cautious, and MAPA increased working capital discipline.
- 2021-2022: Leverage remained stable. Expansions were mostly funded through retained earnings rather than debt.
- 2023: Assets expanded but equity also grew as profitability remained positive, keeping leverage moderate.
- 2024: MAPA preserved a strong balance sheet with manageable leverage ratios.

MAPA's ROE is therefore largely operationally driven, not leverage-driven, which reflects prudent financial management.

d. Table 4. Return of Equity (ROE) Analysis

FY	Net Income (in IDR Bio)	Total Equity (in IDR Bio)	ROE (%)
2020	4,3	2,989	0.01
2021	223	3,231	0.07
2022	1,173	4,473	0.26
2023	1,383	5,877	0.23
2024	1,338	7,119	0.18

Source: PT MAP Active Tbk. (2020,2021,2022,2023 & 2024) Financial Reports.

e. Table 5. NPM, TATO, EM, ROE Comparison

FY	NPM (%)	TATO (Times)	EM (Times)	ROE (%)
2020	0.09	0.89	1.80	0.01
2021	3.7	1.14	1.65	0.07
2022	11.97	1.32	1.66	0.26
2023	10.21	1.26	1.84	0.24
2024	7.79	1.34	1.80	0.19
Average	6.8	1.19	1.75	0.15

Source: PT MAP Active Tbk. (2020,2021,2022,2023 & 2024) Financial Reports.

By combining the three components, MAPA's ROE trend can be explained as follows:

- 2020: Drastic Decline

ROE dropped sharply due to negative or minimal net profit, low asset turnover, and stable but low-impact leverage. This decline aligned with the overall retail sector's performance during the pandemic.

- 2021: Early Recovery

ROE increased as profit margins rebounded, asset turnover improved significantly, and leverage remained moderate. Operational recovery was the main driver of ROE improvement.

- 2022: Peak Recovery

ROE reached its strongest point post-pandemic, high sales growth, strong cash flow, and efficient inventory and asset use. This year reflects MAPA's optimal combination of asset efficiency and improved profitability.

- 2023: Normalization

ROE moderated due to margin normalization, slightly declining asset turnover, and increased asset base for expansion. Despite moderation, ROE remained solid given prudent financial management.

- 2024: Stabilization

ROE stabilizes at a healthy, sustainable level through balanced margins, consistent sales, and managed leverage structure. MAPA demonstrated strong financial resilience over the five years.

Discussion

- MAPA's Competitive Advantage

The DuPont analysis indicates that MAPA's financial strength comes from operational efficiency, particularly in strong inventory management, effective brand portfolio strategy, high store productivity, and strong digital and omnichannel execution. MAPA did not rely on high leverage to boost ROE, which reduces financial risk. MAPA's ability to sustain TATO above 1.2 times and EM below 1.9 times indicates that the company is generating strong revenue relative to the assets employed while maintaining a conservative level of leverage.

- Vulnerabilities

Despite strong recovery, MAPA faces margin pressures from global suppliers, rising competition in sportswear and athleisure, high dependence on imported goods and foreign suppliers, and sensitivity to shifts in consumer purchasing power. Margin compression from 11.97% to 7.79% suggests that cost pressures and competitive pricing remain a challenge. These factors may influence profit margins in the long run.

- Implications for Investors

Investors evaluating MAPA should consider ROE improvements mostly originating from profit margin and asset turnover recovery, conservative leverage implies lower financial risk, and sustained growth depends on MAPA's ability to innovate, expand digital channels, and maintain efficient supply chain practices.

4. CONCLUSION

Using the DuPont Analysis framework to evaluate MAP Active Tbk (MAPA) from 2020 to 2024 reveals a clear trajectory of recovery, growth, normalization, and stabilization.

In 2020, ROE collapsed due to pandemic-induced revenue decline. In 2021, the company rebounded strongly as profit margins improved and asset turnover recovered. By 2022, MAPA reached a post-pandemic performance peak with strong margins and efficient asset utilization. The year 2023 reflected a transition period marked by slight margin pressure and investments in store expansion. By 2024, MAPA had achieved a stable financial footing, balancing profitability, efficiency, and leverage.

The DuPont analysis highlights that MAPA's ROE improvements were operationally driven, not reliant on high leverage. Strong profit margin expansion and asset turnover recovery were the primary contributors to the company's long-term performance.

For shareholders and prospective investors, MAPA demonstrates the characteristics of a resilient and well-managed retail company capable of navigating challenging market conditions. Maintaining strong operational efficiency, expanding digital channels, and sustaining healthy margins will be critical to ensuring continued success in the years ahead.

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CHAPTER 4
Electrification: Is It the Future of Indonesia's Automotive Industry? A Financial Performance Analysis of PT Astra International Tbk (2020–2024)

Abdul MUKHLIS
Institute IPMI, Indonesia
Abdul.Mukhlis@ipmi.ac.id
Orchid: 0009-0003-8199-5707

Wiwiek Mardawiyah DARYANTO
Institute IPMI, Indonesia
wiwiek.daryanto@ipmi.ac.id
Orchid: 0000-0003-35825857

Ibnu Zandra Bachtiar
Institute IPMI, Indonesia
ibnu.bachtiar@ipmi.ac.id
Orchid: 0009-0007-0815-7079

ABSTRACT

The automotive industry in Indonesia has become significantly more competitive due to the electric vehicle's explosive growth. It has been perceived by the increase of electric vehicle wholesales from 10.327 units in 2022 to 43.188 units in 2024 from various manufacturer brands. The purpose of this study is to examine PT Astra International Tbk financial performance over the 2020 to 2024 period as one of Indonesia market leaders in conventional internal combustion engine (ICE) vehicles. Using consolidated financial statements in which the automotive division represents the largest revenue contributor and associated public disclosures, the study applies a quantitative descriptive methodology to assess financial ratio analysis of a company's financial stability in conjunction with the increasing competitiveness of the electric vehicle market in Indonesia. The result shows that Astra International remained in good financial during the study with demonstrated by steady increases at the end of the period in profitability metrics like Return on Asset (ROA) over 9%, Return on Equity (ROE) above 15%, Net Profit Margin (NPM) around 13%, stable Liquidity for both Current and Quick ratios above 1.0%, steady efficiency ratio of Total Asset Turnover below 1% and Inventory Turnover higher than 6% with controllable levels of debt in range of 41% to 44% . Astra showed strong growth in the automotive sector despite the aggressive market penetration of EV brands. Astra demonstrated resilient performance driven by diversification, robust operational efficiency, and strategic adaptation in the automotive segment. These findings suggest that the rise of electrification has not yet disrupted Astra's financial sustainability, highlighting the company's ability to balance traditional combustion business operations while preparing for future transformation in Indonesia's automotive industry.
Keywords: Astra International, Financial Analysis Ratio, Electric Vehicle, Automotive Industry.

1. INTRODUCTION

The worldwide automotive sector is experiencing a significant transition toward electric vehicles, fuelled by improvements in battery technology, governmental support, and increasing consumer consciousness regarding environmental sustainability. Indonesia as number one Southeast Asia's biggest automotive market has start shifted from Internal combustion engine to battery electric-vehicle (BEV). The total wholesales have increased almost threefold in 2024 compared to the prior years, indicating one of the fastest EV adoption curves in the region (Energy Agency, 2024).

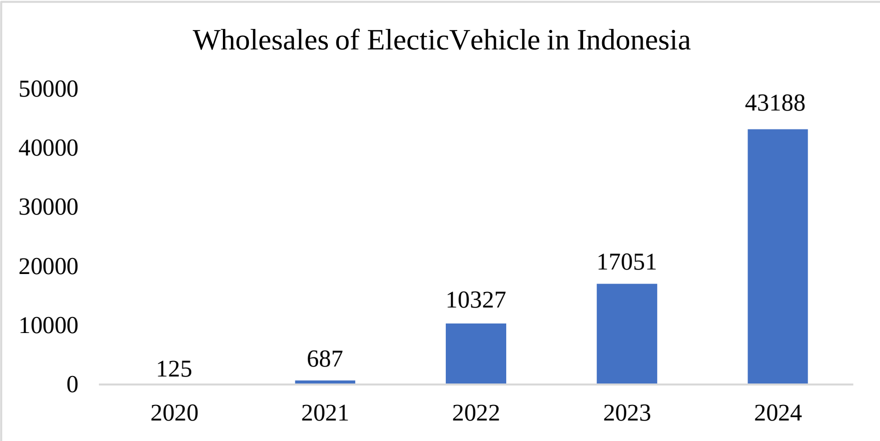

Figure 1. wholesales of EV in Indonesia 2020-2024
Source: Gaikindo Indonesian automobile industry data 2020 - 2024

A chart in figure 1 illustrating Indonesia's EV wholesale numbers from 2020 to 2024 would reveal a sharp and steady upward trajectory, increasing from merely 125 units in 2020 to 687 units in 2021, then skyrocketing to 10.327 units in 2022 and 17.051 units in 2023. By 2024, wholesale EV sales hit 43.188 units, signifying over a twenty-fold rise from 2020. This significant surge demonstrates how the adoption of electric vehicle in Indonesia has transitioned from a niche market to a swiftly expanding mainstream sector, underscoring the need to evaluate how this increasing electrification trend could affect businesses that still rely heavily on internal combustion engine (ICE) vehicle sales.

For more than decades, Indonesia automotive sector has been led by PT. Astra International Tbk through its subsidiaries such as Toyota Astra Motor and Daihatsu Astra Motor whose product portfolio heavily concentrated in internal combustion engine (Rachmawati & Rismayani, 2019). Despite the emergence of new EV rivals, Astra has preserved a solid market stance, upheld by its broad dealer network, financing and service network, and financial strength. The financial results of Astra during the years 2020–2024 offer an insightful example of how established automakers adapt to industrial upheaval and technological changes. This research raises an important question:

1) As EV adoption accelerates in Indonesia, can a conventional ICE-based automotive business like Astra International sustain robust financial performance and resilience?

To address the question, this research examines Astra International's financial performance through quantitative descriptive techniques, utilizing consolidated financial statements that show the automotive segment as the primary revenue source. Essential financial ratios liquidity, profitability, efficiency, and solvency are analysed to evaluate Astra's capacity to maintain financial stability in the face of rising electrification demands.

The findings offer understanding on how a leading incumbent car manufacturer like Astra manages technological disruption and whether electrification poses a fundamental threat or an evolutionary chance for Indonesia's automotive sector.

2. LITERATURE REVIEW

2.1 Financial Ratios

Financial performance analysis is a key indicator of a company ability to manage resources effectively and produce long terms profit. Financial ratio analysis enables management and stakeholder to evaluate a firm's liquidity, profitability, efficiency, and solvency as measures of financial health (Brigham & Houston, 2019).

2.2 Global Electrification and Government Regulation in Indonesia

The global automotive industry has transitioned from vehicle with internal combustion engines (ICE) to electric vehicle (EVs). Global EV sales in 2023 approached 14 million unit and accounted 18% of all car sold worldwide (International Energy Agency, 2023). The transition is driven by pollution regulations, technology advancement, and government incentive to support sustainable mobility (*Future-Mobility-2022-Hype-Transitions-into-Reality_vf*, n.d.)

Started from 2019, Indonesia government implemented various regulations to help accelerate switching to electric vehicles:

- Presidential Regulation No. 55/2019 promotes the development of battery electric vehicle (BEVs) in Indonesia by offering incentives, infrastructural development, and regulatory structure for industry expansion. The regulation aims to strengthen domestic BEV industry, improve air quality, attract investment, and increase the effectiveness of energy use. Key measures include fiscal and non-fiscal incentives, designing facilities for charging infrastructure, setting technical standards, and determining pricing for charging.
- Minister of Industry Regulation No. 6/2022 describes the standards, development goals, and local content level (TKDN) calculation methodology for Indonesia's battery electric vehicle (BEV) Sector. In order for BEVs to be eligible for subsidies, it establishes required TKDN targets which call for domestic components to reach 40% by 2023, 60% by 2025, 80% by 2026.
- Minister of Finance Regulation No. 26/PMK.010/2022 provides reduction of import duties on electric vehicle and its spare part components.

Traditional automakers like Astra International, which have historically dominated the market with internal combustion engine-based products under Toyota, Daihatsu, and Isuzu, have encountered more competition because of these changes.

3. METHODOLOGY

This study utilizes descriptive financial ratio methodology to measure and analyze the financial performance of PT Astra International Tbk during period 2020-2024 while the BEVs sales increase significantly. All the data collected from the annual report that has been released in official website of Indonesia stock exchange (IDX).

a. Liquidity Ratio

A financial indicator used to assess company ability to fulfil company short-term obligations using its current assets. It demonstrates company's operational effectiveness in handling working capital as well as its short-term financial stability. To put it another way, liquidity ratio assess how well company can convert its assets into cash to cover obligations that are payable within one year.

i. Current Ratio is a formula to measure company ability to cover short-term debt using its current assets (Brigham & Houston, 2019)

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

ii. Quick Ratio reflect the immediate liquidity position in the company. This ratio is deducting inventories from current Asset (Brigham & Houston, 2019)

$$\text{Quick Ratio} = \frac{\text{Current Assets-Inventories}}{\text{Current Liabilities}}$$

b. Profitability Ratio

A key financial indicator that used to evaluate company ability to turn a profit in relation to its sales, assets, or equities. These ratios analysed overall financial performance in certain period and show the way company uses its resources to generate income(Kieso et al., n.d.)

i. Return on total assets (ROA) is one of the profitability ratios that used to measure how effectively company uses its assets to produce net revenue (Brigham & Houston, 2019)

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}$$

ii. Return on Equity (ROE) this is profitability ratio that measure ability of the company to generate net income from the investor’s capital. ROE is key indicator of financial performance to create value creation for shareholder (Brigham & Houston, 2019)

$$\text{ROE} = \frac{\text{Net Income}}{\text{Shareholder Equity}}$$

iii. Net Profit Margin (NPM) is one important profitability which calculate the percentage of net income generated from total sales after deducted all operational cost (Westerfield Jordan, n.d.)

$$\text{NPM} = \frac{\text{Net Income}}{\text{Net Sales}}$$

c. Efficiency Ratio

This ratio demonstrates how rapidly and efficiently a company utilized its assets and inventory to generate revenue.

i. Total Assets Turnover shows how company uses all its asset to generate sales. Higher number of ratios means better assets utilization(Kieso et al., n.d.)

$$\text{TAT} = \frac{\text{Net Sales}}{\text{Total Assets}}$$

ii. Inventory Turnover shows how frequently inventory being replaced in the certain period. High turnover indicates efficient inventory and high demand (Kieso et al., n.d.)

$$\text{Inventory Turnover} = \frac{\text{COGS}}{\text{Inventories}}$$

d. Solvency Ratio

This ratio indicates company's long-term sustainability and ability to grow without facing financial difficulties. Stronger financial stability usually represented by high solvency ratio (Kieso et al., n.d.)

$$\text{Debt to Assets Ratio} \quad \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

4. FINDING & DISCUSSION

4.1 Liquidity Analysis

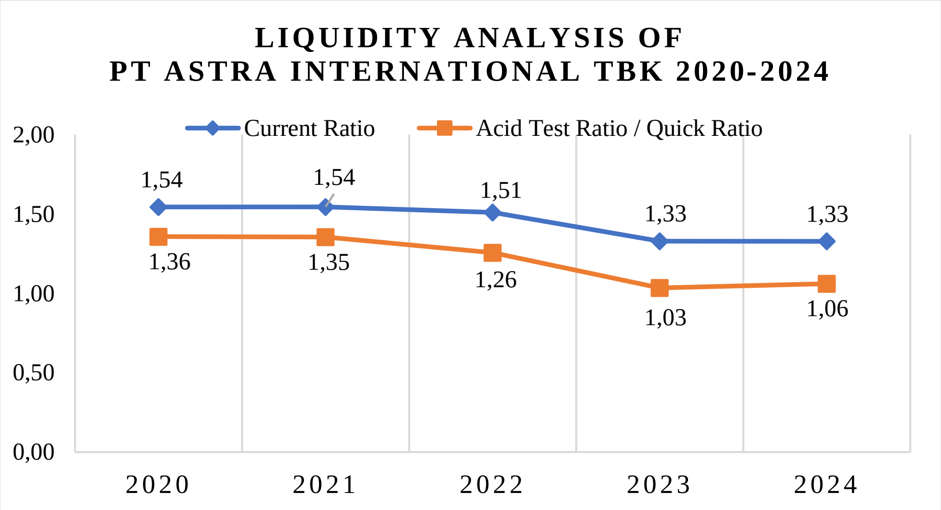

Figure 2. Liquidity Analysis of PT Astra International Tbk 2020-2024

Figure 2 shows the current ratio of PT Astra International Tbk was gradually decrease from 1.54 in 2020 to 1.33 in 2024 while cash ratio declined moderately from 1.36 to 1.06 in the same period. Even though the ratios show a gradual declined, its still indicating both ratios still above 1.0 that implies the company has effective liquidity control as the current liabilities still can be covered by its Assets.

4.2 Profitability Analysis

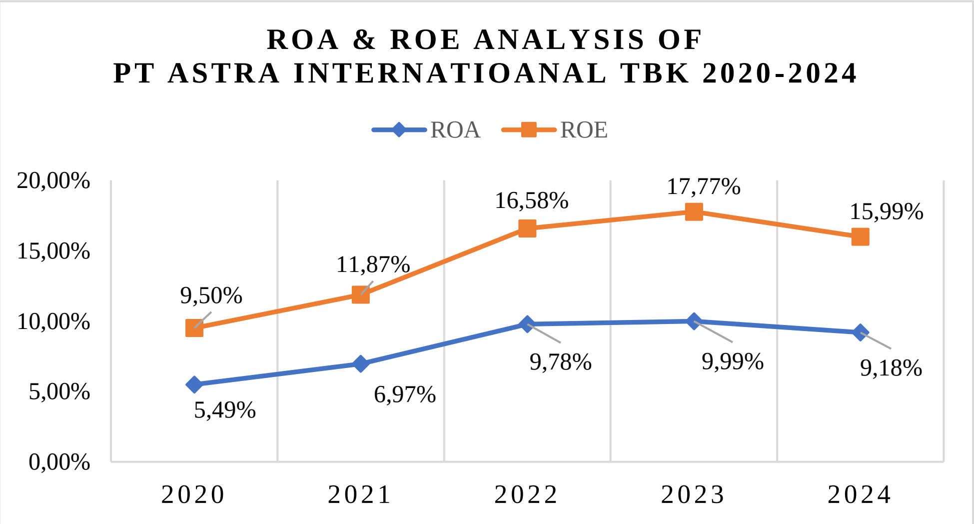

Figure 3. ROA & ROE Analysis of PT Astra International Tbk 2020 - 2024

Figure 3 shows strong profitability ratio in term of ROA & ROE despite the strong invasion of electric vehicle (EV) in Indonesia automotive landscape. The consistent arise recorded in 2023 when both ratios turn to highest level with 9.99 of ROA & 17.77 of ROE indicated that Astra's ability to maintain profitability and effective management even the automotive market underwent transformation shifting to electrification by new competitors. Moreover, the minor declined in 2024 reflect that Astra has preparing new strategic reinvestment to adapt new technology platform, set up dealer modernization, developing new hybrid model and preparing new standard procedure to adopt market changes.

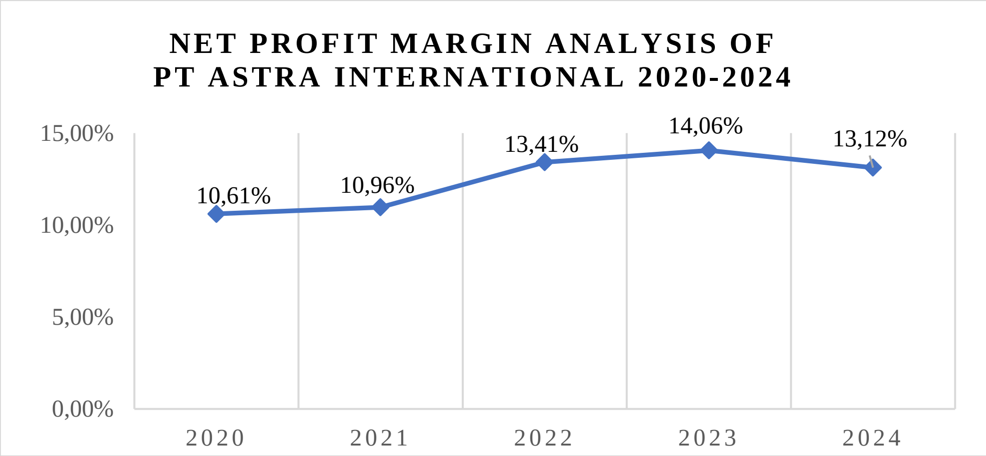

Figure 4. Net Profit Margin Analysis of PT Astra International Tbk 2020 - 2024

Figure 4 shows the consistent improvement of NPM from 2020 – 2023 with gradual increment from 10.61 in 2020 to 14.06 in 2023. This improvement was driven by post pandemic rebound, increased new car sales volume especially in 2022 and 2023 and stronger financing performance. The slight decline in 2024 reveals that Astra reinvestment to get ready to electrification future.

4.3 Efficiency Analysis

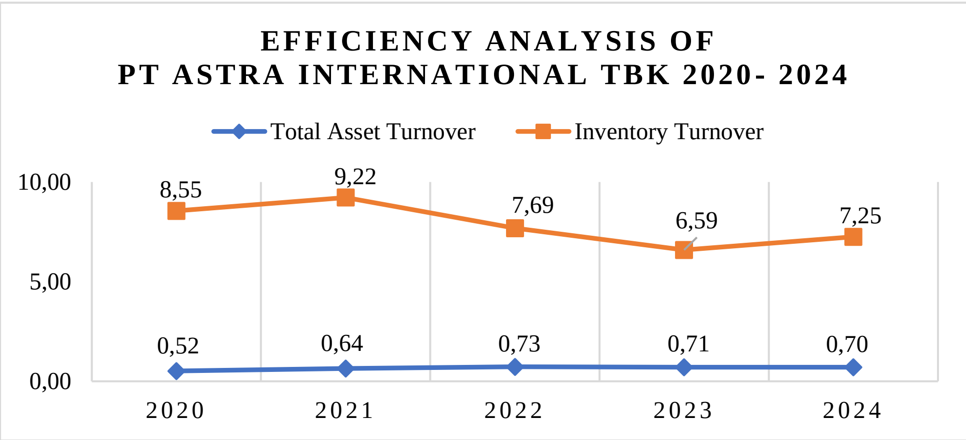

Figure 5. Efficiency Analysis of PT Astra International Tbk 2020 - 2024

Figure 5 shows that Astra International's operational excellence and financial viability have been proven by steady performance of both total asset turnover and inventory turnover from 2020-2024. TAT gradually rose from 0.52 in 2020 to 0.70 in 2024 indicate that Astra sustained efficiency and prudent asset management while the slight decline of inventory turnover post 2021 indicates adaptive inventory management.

4.4 Solvency Analysis

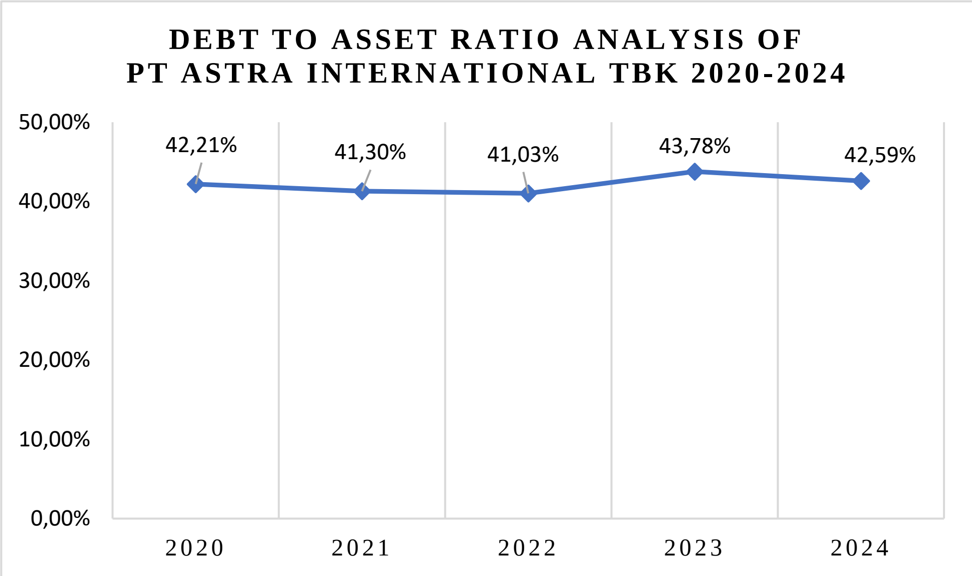

Figure 6. Debt to asset ratio Analysis of PT Astra International Tbk 2020 - 2024

Figure 6 shows that debt to asset ratio of PT Astra International Tbk remained relatively strong and stable within range of 41% to 44% in the period 2020-2024. The consistency of this leverage indicates strong capital structure as total liabilities used was less than half of company's total asset. The slight increase in 2023 aligns with Astra's reinvestment activities in digital infrastructure, dealer transformation, and electric vehicle readiness programs. Overall, Astra's solvency ratio confirms that Astra International's exceptionally strong financial position not only in short-term period but also in the long run.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This study investigated financial performance of PT Astra International Tbk during the year of 2020–2024, a timeframe characterized by substantial changes in Indonesia's automotive sector due to the swift increase in electric vehicle (EV) adoption. Focusing on evaluation through financial ratio analysis, the assessment show insight that Astra effectively maintained robust financial performance even amidst the rapid growth of EV sales in Indonesia.

The study finding that Astra liquidity remained consistently stable, with Current Ratio in average above 1.3 and Quick Ratio in average above 1.0 reflecting disciplined short-term financial management. Rising ROE, ROA, and Net Profit Margin demonstrated the substantial strengthening of profitability, which was driven by efficient cost control and steady market demand. In the meantime, Astra's capacity to maximize its resources and preserve operational flexibility in the face of supply-chain modifications and changing customer preferences was shown by efficiency metrics like Total Asset Turnover and Inventory Turnover. Additionally, solvency ratios demonstrated robust and conservative leverage, with debt ratios maintained between 41% and 44% which indicating minimal credit risk and excellent debt-servicing capability.

To sum up, these findings show that Astra not only maintained financial stability throughout the EV expansion but also exhibited an exceptional level of adaptive resilience. The company was able to endure early-stage electrification challenges without compromising performance because of its diverse business structure, strong financial governance, and capacity to foresee changes in the sector. Astra's financial results show that electrification has not weakened its competitive position in Indonesia automotive landscape. Astra seems well-positioned to develop alongside Indonesia's expanding EV ecosystem such as Hybrid line-up models, which is consistent with earlier studies on incumbents navigating new disruption.

5.2 Recommendation

To enhance its competitive advantages and promote long-term sustainability. There are 3 recommendations to face the challenges:

1) Astra should expedite its electrification strategy by utilizing its strong financial status to invest in EV technologies, and battery-associated value chains.
2) Astra needs to enhance dealer and after-sales preparedness, which encompasses technician certification, availability of spare parts, and partnerships on charging infrastructure, to equip its national network for the growing adoption of EVs.
3) Astra's financial divisions TAF and ACC can strategically enhance EV adoption by offering competitive financing program for electric vehicles

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CHAPTER 5
Financial Performance of Consumer-Branded Packaged Foods Industry under Pandemic Normalization and Input-Cost Volatility in Indonesia

Valencia KAM
IPMI Institute, Indonesia
valencia@ipmi.ac.id
Orcid: 0009-0002-6228-7900

Wiwiek Mardawiyah DARYANTO
IPMI Institute, Indonesia
wiwiek.daryanto@ipmi.ac.id
Orcid: 0000-0003-3582-5857

Azahran Atras Arfie SYAM
IPMI Institute, Indonesia
azahran.syam@ipmi.ac.id
Orcid: 0009-0004-6495-8469

ABSTRACT

In Indonesia's consumer-branded packaged food market, resilience rests on scale, distribution reach, and pricing power through commodity and currency cycles. Against that backdrop, PT Indofood CBP Sukses Makmur Tbk ("ICBP")'s five-year financial performance was evaluated using a DuPont analysis to attribute movements in return on equity (ROE) to profitability (net profit margin), efficiency (asset turnover), and capital structure (equity multiplier), with tax and interest burdens considered where informative. Audited statements for FY2020-FY2024 were analyzed to trace how margin, turnover, and leverage dynamics interacted during pandemic normalization and input-cost shocks. Results indicated a mid-period compression in profitability at the 2022 cost peak (net profit margin declined from 13.93% in 2021 to 8.84% in 2022), followed by partial recovery in 2023 (12.48%) and 2024 (12.25%) as pricing discipline, product mix optimization toward higher-margin noodles (71% of sales), and operating productivity restored margin quality. Asset turnover remained disciplined for a staples profile, while the equity multiplier trended prudent as operating cash flows strengthened and financing costs eased, supporting improved interest coverage. The decomposition suggested that margin normalization, rather than incremental leverage, primarily anchored ROE restoration late in the window. The findings offered a CFO-oriented map linking commercial levers (pricing, mix, cost) to ROE drivers, informing capital-allocation priorities around margin protection and disciplined funding. Limitations included reliance on public disclosures and the absence of unit-level economics or hedge detail.
Keywords: Consumer-branded Packaged Food; Indonesia; Financial Performance; Liquidity; Profitability.

INTRODUCTION

The global market volatility together with regular crises including pandemics and commodity shocks has introduced extreme complexity to financial management operations in developing nations. The consumer-branded packaged food sector demonstrates this trend most clearly because businesses operating in this sector need to handle quick supply chain changes and currency value shifts and changing customer preferences to achieve market expansion and financial success. The unpredictable business environment demands managerial accounting for financial performance evaluation and resource optimization and external shock response planning through data-driven methods. The research investigates PT Indofood CBP Sukses Makmur Tbk (ICBP) as Indonesia's top packaged food producer to understand how sophisticated managerial accounting methods help organizations build crisis resistance and generate enduring value (Horngren et al., 2015; Palepu et al., 2016).

The consumer packaged food sector of Indonesia operates as a core economic force because it establishes employment opportunities and generates export revenue while ensuring food security for its 270 million people. The sector encounters increasing difficulties because of unsteady commodity market values and currency market fluctuations and supply network breakdowns and strong competition from local and international market players. The 2020-2024 period experienced its worst economic conditions because the pandemic disruptions merged with the extreme 2022-2023 global food price crisis which established itself as the most severe commodity shock since multiple decades. The time span resulted in wheat price growth at 21% while palm oil expenses rose by 35% and dairy product prices increased by 19% annually and the IDR lost 10% of its value against the USD which raised manufacturing expenses because of elevated production expenses and elevated loan interest rates (Food and Agriculture Organization, 2023; International Monetary Fund, 2023).

PT Indofood CBP Sukses Makmur Tbk (ICBP) operates as Indonesia's leading packaged food manufacturer which controls the market for noodles and dairy products and seasonings and snacks and nutrition and beverages. The company demonstrates effective financial management strategies during crisis times through its position as Indonesia's largest and most influential packaged food manufacturer. The company operates as a bellwether for the sector because it has 2023 consolidated assets of Rp 126.0 trillion and net sales of Rp 72.6 trillion. Market leaders face extreme market challenges when commodity crises happen because ICBP experienced a 14.40% return on equity decline to 9.96% in 2022 because of rising commodity prices and lower gross margins and foreign exchange losses from USD-denominated financing that resulted in Rp 4.04 trillion operational challenges (PT Indofood CBP Sukses Makmur Tbk, 2024).

The research applies DuPont five-factor decomposition and year-over-year variance analysis and responsibility accounting and working capital metrics to determine which operational and financial aspects influence ICBP's financial results. The analysis employs ROE decomposition to determine which commercial levers enabled crisis response and recovery through profitability and asset efficiency and leverage components and their sub-components. The research investigates four related questions which include: (1) What were the five-year ROE changes of ICBP and which factors contributed most to these changes through profitability and asset efficiency and leverage? (2) The 2022 profitability compression and subsequent recovery need margin dynamics analysis to identify the elements which caused these changes. (3) Working capital management and operational efficiency face the crisis impact which becomes visible through inventory and receivable data and turnover metrics. (4) The analysis of commercial levers and cost behavior and responsibility accounting in a staples business with volatile commodities and currency exposure reveals strategic managerial accounting insights.

1. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

1.1 DuPont Analysis and ROE Decomposition

The DuPont analysis divides return on equity into separate elements which enables organizations to identify particular performance drivers. The framework developed by Rappaport (2016) lets managers monitor operational performance by using margin and turnover metrics which operate independently from financial engineering activities that focus on leverage expansion. The extended five-factor model separates net profit margin into two distinct elements which evaluate operating profitability through EBIT/Sales and tax burden through Net Income/EBT and interest burden through EBT/EBIT to demonstrate their separate impacts on financial structure and tax policies. The identification of these distinct elements becomes essential when operational trends become difficult to detect because of changes in currency values and interest rates and tax regulations.

Staple manufacturers need to focus on EBIT margin because it shows their ability to protect gross margin stability against commodity price rises through pricing and product selection and operational expense management which they can control as studies highlight that managerial accounting data including cost behavior information and variance analysis and responsibility accounting metrics helps managers assess operational performance without financial accounting influences and make strategic resource allocation decisions during times of market stress and uncertainty (Horngren et al., 2015). The DuPont framework separates ROE changes into separate components through its framework.

1.2 Variance Analysis and Managerial Performance Measurement

Managerial accounting theory bases its approach on variance analysis which involves systematic comparison of actual performance data to budgeted figures and standards and previous period results to support management by exception and ongoing operational enhancement. Organizations which use advanced variance analysis systems with real-time frequency and detailed cost decomposition achieve better cost management and faster market adaptation (Pizzini, 2006). The analysis of variance becomes most useful during commodity-driven margin crises because it separates cost variations into price elements which show commodity price increases outside management control and quantity/efficiency elements which demonstrate operational performance and cost management effectiveness.

Flexible budgeting should be used for variance analysis because it allows budget expectations to adjust to actual volume changes instead of using static budgets which mix volume effects with cost behavior changes (Drury, 2015). Food manufacturers must identify both positive and negative cost variances because this data helps them determine when to adjust prices for commodities and when to optimize production for better efficiency. Managerial accounting systems enabling this disaggregation drive superior decision-making and stakeholder communication.

1.3 Commodity Price Volatility and Food Manufacturing Financial Performance

The food manufacturing industry operates under structural conditions that make it vulnerable to price fluctuations of raw materials. Research shows that food businesses experience greater earnings instability than other industries because essential commodity price swings between wheat and oils and dairy and sugar products result in 30-50% changes in total industry profits (Williams et al., 2020). The market shows high volatility because of three main factors: (1) Agricultural production faces natural fluctuations due to weather conditions and disease outbreaks and geopolitical events; (2) Food manufacturers operate with high variable costs that make up 60-70% of their sales so their profitability strongly depends on changes in input prices; and (3) Manufacturers face restricted price increases because of consumer price sensitivity which creates delays between rising input costs and new retail prices.

Emerging-market food manufacturers handled the 2007-2008 global food crisis through better working capital management which included short collection periods and optimized inventory levels and flexible cost structures to achieve better crisis recovery. The need for businesses to decompose costs quickly and optimize volume-based sourcing and customer credit management through managerial accounting systems became essential for survival during crisis times. The companies which lacked these capabilities experienced declining profitability because they were unable to execute quick countermeasures which extended their profitability decline. (McLaughlin et al., 2019)

1.4 Financial Crisis Impact on Emerging-Market Firm Performance

The financial crisis patterns which impact emerging-market businesses demonstrate particular characteristics. Exchange rate shocks lead to two main problems for emerging market manufacturers because they must pay higher costs for USD-priced inputs and face increased financial strain from USD-denominated debt (Iyoboyi, 2013). The lack of proper hedging and balance sheet management systems allowed currency depreciation to eliminate operating profitability gains which resulted in negative financial outcomes for ICBP during 2022 because production expenses increased and financing operations produced substantial foreign exchange losses due to IDR depreciation.

Firms with conservative leverage ratios and strong liquidity buffers (current ratios of 2.0-2.5) weathered crises more effectively than aggressive leverage strategies (Desai et al., 2010). Different industries and firm types need varying levels of working capital but companies that optimize their cash conversion cycle achieve better stability during economic downturns. The value of working capital discipline becomes most important during commodity crises because it helps businesses maintain cash flow for operations and debt service by speeding up collections and improving inventory management and extending payment terms to avoid costly external funding (Nazir & Afza, 2009).

2. COMPANY OVERVIEW AND STRATEGIC CONTEXT

2.1 PT Indofood CBP Sukses Makmur Tbk Business Model and Market Position

PT Indofood CBP Sukses Makmur Tbk operates as Indonesia's top diversified consumer packaged food manufacturer through its responsibility center organizational structure and various business segments. ICBP was established as a 2009 spin-off of the Noodles and Food Ingredients Divisions from parent company PT Indofood Sukses Makmur Tbk (ISM), which remains the controlling shareholder, and completed an initial public offering in September 2010 on the Indonesia Stock Exchange. The company operates through six business segments which maintain separate market positions and generate different profit margins as of 2024:

1. The **Instant Noodle Division** generated 71% of net sales through its large production volume and loyal customer base and market price control in sensitive markets which resulted in 22-23% operating margins. The noodles division functions as ICBP's main operational strength and profit generator because noodles maintain their sales levels during economic downturns because they serve as an affordable protein-carbohydrate staple.
2. The **Dairy Division** includes skim milk powder and cheese products and dairy-based beverages which operate at lower profit margins between 7-10% while facing high import costs and market demand fluctuations. The premium positioning of dairy products creates structural problems that weaken volume stability during economic downturns and the USD-based nature of imports makes dairy prices vulnerable to currency fluctuations.
3. The **Seasonings Division** produces flavor and seasoning products through its Bumbu brand which maintains a 10-12% profit margin because of its wide market reach and dependable supply chain. Seasonings achieve wider market reach because they offer affordable prices which enable all income levels to access them while their manufacturing expenses remain stable unlike dairy products and noodles.
4. The **Snack Foods Division** includes biscuits and crackers and snack products which operate in the mid-margin segment with 8-12% margins and face competitive market conditions and commodity price risks similar to noodles. Large-scale operations of snack companies do not allow them to adjust their prices because domestic brands compete with multinational brands in the market.
5. The **Nutrition and Special Foods Division** functions as a specific business unit which develops therapeutic food products and nutritional solutions for markets with low price sensitivity yet limited production capacity (8-12% margin).
6. The **Beverages Division** operates two segments that consist of non-alcoholic beverages and soft drinks which generate minimal profits because of their low operating margins due to high energy expenses and discount retail competition (4-10% operating margins). The beverage industry encounters two main difficulties because customers now prioritize wellness and market competition

has increased through promotional activities.

ICBP depends heavily on its partnership with PT Indomarco Adi Prima (IAP) because this company functions as a related-party distributor which produced 51.73% of consolidated net sales in 2022 and 51.09% in 2023. The company achieves market dominance through its distribution network but faces strategic challenges because it depends on specific channels and loses pricing flexibility when IAP gains strong negotiation power and faces regulatory problems with fair related-party transactions.

2.2 Financial Scale, International Operations, and Goodwill Exposure

The total assets of ICBP reached Rp 126.0 trillion (approximately USD 8.1 billion) by December 31, 2023 while net sales reached Rp 72.6 trillion which represented a 56% increase from Rp 46.6 trillion in 2020. The company generates revenue through its Southeast Asian and Middle Eastern and African and other regional subsidiaries which creates natural currency exposure and hedging opportunities against IDR depreciation. A material concentration of this asset base reflects goodwill from the 2020 acquisition of Pinehill Company Limited (PCL), a Middle East and Africa-based noodle manufacturer and distributor. The company disclosed goodwill and intangible assets worth Rp 54.0 trillion at December 31, 2023 which represented 44% of total consolidated assets and 86% of consolidated equity.

The company needs to perform periodic impairment tests on its substantial goodwill assets because operating margin reductions and negative foreign currency effects on international business operations increase its risk of impairment. The evaluation process of management determines if international operating cash flows support the recorded goodwill basis because unimpairment of excess goodwill during economic downturns results in overvalued assets and equity positions. The dynamic between consolidated financial reporting objectives and segment-level accountability affects managerial accounting practice because international operations need to produce enough returns to validate goodwill carrying values which creates additional performance demands on Middle East and Africa divisions above their standard profitability targets.

3. METHODOLOGY

3.1 Data Sources and Period Coverage

The analysis draws its data from audited consolidated financial statements of PT Indofood CBP Sukses Makmur Tbk which were obtained from official Indonesia Stock Exchange filings and company annual reports that follow both Indonesian Generally Accepted Accounting Principles (SAK) and International Financial Reporting Standards (IFRS) adopted in Indonesia for fiscal years 2020-2024. The consolidated statements provide financial data through the following key performance indicators: The **Income Statement** contains Net income and EBT and EBIT and gross profit and operating profit and cost of goods sold and selling expenses and general and administrative expenses and interest expense and foreign exchange gains/(losses) and tax expense. The **Balance Sheet Statement** contains the following financial items: Total assets, current assets, fixed assets, goodwill and intangible assets, total liabilities, current liabilities, total debt, total equity, and retained earnings. The **Working Capital Metrics** include accounts receivable and inventory and accounts payable and current ratio and quick ratio and derived metrics which calculate days sales outstanding and inventory days and days payable outstanding and cash conversion cycle. The company presents **Segment Information** through IFRS 8 Operating Segments which includes Net sales and operating profit and segment assets/liabilities for each of its six operating divisions. Each segment operates as a responsibility center with divisional management accountability for profit and loss (PT Indofood CBP Sukses Makmur Tbk, 2024).

The research period spans from January 1, 2020 through December 31, 2024 which covers (1) the start of COVID-19 pandemic management in 2020 (2) the time when people adapted to the pandemic in 2021 (3) the highest point of the global food crisis occurred between 2022 and 2023 and (4) the recovery phase took place in 2024. The time frame provides an ideal opportunity to study ICBP financial stability because it includes various distinct macroeconomic disturbances which enable researchers to evaluate management actions and identify differences in responses to different types of crises.

3.2 Analytical Framework: DuPont Decomposition

The DuPont five-factor decomposition model enables ROE analysis through its breakdown into five distinct elements that include tax burden and interest burden and operating profitability and asset efficiency and leverage components. The different components show separate areas of managerial decision-making because **Tax Burden (Net Income / EBT)** demonstrates a company's ability to manage taxes and follow tax policies while remaining stable unless there are changes in tax regulations or effective tax rates. The **Interest Burden (EBT / EBIT)** measures the impact of financing costs and interest expenses on operating profitability because it depends on both leverage levels and interest rate conditions. The **Operating Profit Margin (EBIT / Sales)** shows how well a company operates through its cost of goods sold and operating expenses and pricing strategy. It serves as the fundamental performance indicator for managers. The **Asset Turnover ratio (Sales / Total Assets)** demonstrates a company's asset utilization for sales generation and its working capital and fixed asset management effectiveness. The **Equity Multiplier (Total Assets / Total Equity)** shows how much debt a company uses to finance its operations and reveals its capital structure and funding decisions and risk management approach. Each component reflects distinct managerial decision domains (Palepu et al., 2016; Horngren et al., 2015).

The analysis calculates year-over-year changes for each component through absolute basis point changes for percentage metrics and percentage changes for ratio metrics which compare to both 2020 baseline and previous year data to track trends. Variance Analysis classifies year-over-year metric changes as **Favorable (F)** or **Unfavorable (U)** based on whether changes improved or worsened managerial objectives. The assessment of profit and efficiency metrics needs positive results because higher values show better performance but cost ratios and leverage metrics require lower values to show improvement. The classification system allows for quick detection of unusual items which need management review. The evaluation of segment performance through Responsibility Accounting requires operating profit and operating margin to show what managers can control regarding costs and revenues. The analysis of segment variances enables organizations to identify which business units performed well during the commodity crisis (favorable variance) and which units require strategic changes because of market challenges (unfavorable variance).

3.3 Limitations and Data Constraints

The analysis contains essential restrictions that need acknowledgment because (1) The research depends solely on consolidated audited financial statements which the Indonesia Stock Exchange and investors can access through public disclosure. The company maintains its product-line profitability data at a granular level and its SKU pricing information and customer-specific margin patterns and internal cost allocation methods as proprietary information which cannot be accessed by outside parties. (2) The company fails to present hedging disclosure because ICBP does not reveal its derivative hedging activities or commodity and currency exposure ratios or fair value hedge accounting methods which prevents investors from evaluating the company's deliberate risk management approach. (3) The public disclosures lack sufficient transparency regarding international operations complexity because they do not provide enough detail about Goodwill from international acquisitions and foreign subsidiary operational dynamics and intercompany transaction allocation methodology to accurately separate international from domestic performance. The analysis lacks scenario modeling and sensitivity analysis for commodity price paths and exchange rate assumptions which would help assess ROE drivers under different macroeconomic scenarios.

4. FINANCIAL PERFORMANCE ANALYSIS

4.1 Five-Year ROE and Component Trends

Table-1: DuPont Five-Factor Decomposition (2020-2024)

Component	2020	2021	2022	2023	2024	Change (2020–2024)
Net Profit Margin (%)	15.93	13.93	8.84	12.48	12.25	-3.68pp
Asset Turnover (x)	0.451	0.481	0.562	0.569	0.576	+0.125x (+27.7%)
Equity Multiplier (x)	2.01	2.15	2.02	1.91	1.86	-0.15x (-7.5%)
Return on Equity (%)	14.64	14.40	9.96	13.63	13.15	-1.49pp (-10.2%)
Tax Burden (NI/EBT)	0.715	0.795	0.760	0.739	0.766	-0.051
Interest Burden (EBT/EBIT)	0.927	0.832	0.545	0.859	0.739	-0.188
Operating Margin (EBIT/Sales) (%)	19.73	20.55	20.65	21.19	22.48	+2.75pp

Source: PT Indofood CBP Sukses Makmur Tbk Annual Financial Report

Based on Table 1, the company created performance benchmarks through its 2020 ROE of 14.64% which resulted from 15.93% net profit margin and 0.451x asset turnover and 2.01x equity multiplier. The 2021 period maintained a ROE of 14.40% but net profit margin decreased to 13.93% because asset turnover increased to 0.481x and equity multiplier reached 2.15x which minimized the effect of falling margins. The 2022 crisis year brought about a major decline in performance because ROE dropped to 9.96% while net profit margin decreased to 8.84% and asset turnover increased to 0.562x and equity multiplier slightly decreased to 2.02x. The company paid less interest because foreign exchange losses totaling Rp 4.04 trillion exceeded all operating profit gains. The company started its recovery process in 2023 through debt reduction programs which resulted in a 13.63% ROE and 12.48% net profit margin and 0.569x asset turnover and 1.91x equity multiplier. The company reached a 13.15% ROE in 2024 while keeping its net profit margin at 12.25% and asset turnover at 0.576x which showed a 27.7% improvement from 2020 and an equity multiplier of 1.86x. The research shows that ROE decreased by 344 basis points from 14.40% to 9.96% because net profit margin decreased by 509 basis points from 13.93% to 8.84%. The situation indicates a profit crisis instead of problems with asset management or borrowing.

The company sustained EBIT margin stability at 20.55% to 20.65% through SG&A cost reductions which offset the decrease in gross margin. The difference between stable EBIT and declining net income shows that the crisis became worse because of **deteriorating interest burden** (EBT/EBIT decreased from 0.832 to 0.545) which resulted from foreign exchange losses on financing.

The asset utilization rate at ICBP has shown steady improvement since 2020 because the company managed to increase sales per IDR regardless of market conditions. The asset turnover ratio at ICBP has demonstrated continuous growth from 0.451x in 2020 to 0.576x in 2024. The organization demonstrates its ability to maximize working capital while keeping capital project expenses under control.

Equity multiplier declined from 2.15x (2021 peak) to 1.86x (2024), the company demonstrates its focus on maintaining strong balance sheet health through this action maximization. The company selected this strategy to maintain financial stability although it resulted in lower short-term return on equity (ROE).

4.2 Profitability Crisis and Recovery and Margin Decomposition

Table-2: Gross Margin and COGS Dynamics (2020-2024)

Metric	2020	2021	2022	2023	2024
Gross Margin (%)	36.97	35.71	33.64	37.00	37.03
COGS as % of Sales	63.03	64.29	66.36	63.00	62.97
Net Sales (Rp T)	46.64	56.80	64.80	67.91	72.60
COGS (Rp T)	29.38	36.52	43.01	42.78	43.53
Gross Profit (Rp T)	17.26	20.28	21.79	25.13	29.07

Source: PT Indofood CBP Sukses Makmur Tbk Annual Financial Report

Based on Table-2, the gross margin performance of ICBP underwent changes because of the commodity crisis which affected its business operations. The company operated at a 36.97% gross margin during 2020 while COGS expenses accounted for 63.03% of sales which generated Rp 17.26 trillion in gross profit from Rp 46.64 trillion in sales. The 2021 business period started with margin reduction to 35.71% because COGS expenses reached 64.29% of sales but the company achieved Rp 20.28 trillion in gross profit through its increased sales of Rp 56.80 trillion. The 2022 crisis brought about the most significant margin reduction to 33.64% because COGS expenses reached 66.36% of sales while sales expansion of Rp 8.0 trillion failed to stop absolute COGS from increasing by Rp 6.49 trillion. The company generated Rp 64.80 trillion in sales but its gross profit only increased by Rp 1.19 trillion to reach Rp 21.79 trillion. The company achieved recovery in 2023 because commodity prices stabilized and pricing adjustments became effective which led to gross margin expansion above pre-crisis levels to 37.00% while COGS decreased to 63.00% resulting in Rp 25.13 trillion gross profit from Rp 67.91 trillion sales. The company maintained stable profit margins of 37.03% through its pricing strategies and product mix improvements which generated Rp 29.07 trillion in gross profit from Rp 72.60 trillion in sales while COGS stayed at 62.97%. The 2022 gross margin reached its lowest point at 33.64% because commodity input costs exceeded pricing adjustments. The company experienced **negative operating leverage** because COGS expenses rose by Rp 6.5 trillion from Rp 36.5 trillion to Rp 43.0 trillion while net sales expansion reached only Rp 8.0 trillion from Rp 56.8 trillion to Rp 64.8 trillion.

The data from FAO shows that wheat prices rose by 21% between 2021 and 2022 and palm oil prices rose by 35% and dairy product prices increased by 19% during this time. The ICBP experienced direct gross margin pressure because wheat makes up 25% of noodle COGS and palm oil makes up 15% and dairy products make up 10% of diversified portfolio COGS. The company failed to pass all commodity cost increases from 2022 to consumers because of price elasticity and distributor margin protection which limit retail pricing.

The three managerial levers for recovery from 2022-2024 included (1) commodity price moderation which brought down worldwide commodity prices because Ukraine supply risks decreased and fertilizer production returned to normal thus reducing direct input costs. (2) The company reached 6.9% net sales growth during 2023-2024 and 6.8% in 2024-2025 through effective price increase methods that limited volume expansion. The price realization shows both the time needed for price list increases to reach distributors and customers' acceptance of elevated prices. (3) The company directed its sales efforts toward higher-margin noodles which made up 71% of sales and produced 22.9% operating margin to reduce portfolio margin pressure.

Table-3: Operating Profit Margin and SG&A Expense Ratios (2020-2024)

Metric	2020	2021	2022	2023	2024
Operating Profit Margin (%)	19.73	20.55	20.65	21.19	22.48
SG&A (Rp T)	8.11	8.74	10.79	10.35	10.70
SG&A as % of Sales	17.4	15.4	16.6	15.2	14.7
Selling Expense Ratio	11.9	11.0	12.2	11.1	10.7
G&A Expense Ratio	5.5	4.4	4.4	4.1	4.0

Source: PT Indofood CBP Sukses Makmur Tbk Annual Financial Report

Based on Table-3, the operating profit margin stayed constant throughout the crisis period yet gross margin showed significant fluctuations. ICBP operated at a 19.73% operating margin during 2020 because its SG&A expenses reached Rp 8.11 trillion which accounted for 17.4% of total sales. The 2021 period brought better operating margin performance to 20.55% because SG&A efficiency improved to 15.4% of sales while reaching Rp 8.74 trillion. The company achieved a 20.65% operating margin throughout 2022 because it controlled SG&A expenses which remained at 16.6% of sales while reaching Rp 10.79 trillion in absolute value. The company achieved a 21.19% operating margin in 2023 through better SG&A management which brought the ratio down to 15.2% while sales began to increase again. The company achieved its highest operating margin of 22.48% during 2024 through optimized SG&A expenses which reached 14.7% of sales at Rp 10.70 trillion. The company achieved its best cost discipline through selling expense ratio reduction to 10.7% and G&A ratio reduction to 4.0% which became the lowest point during the five-year period.

Despite gross margin deterioration between 2020 and 2022, operating margin remained virtually flat (19.73% in 2020 vs. 20.65% in 2022), indicating disciplined fixed-cost management through the crisis. The fixed-cost expenses showed minimal change between 2020 and 2022 because they remained at 19.73% in 2020 and 20.65% in 2022. The company reduced its SG&A spending as a percentage of sales from 15.4% in 2021 to 14.7% in 2024 because of two factors: operational efficiency from rising sales and intentional cost management during the 2022 crisis. The 2022 variance shows that the company faces ongoing margin problems because gross profit decreased by Rp 2.8 trillion from 2021 yet operating profit grew by Rp 0.7 trillion to reach Rp 13.4 trillion. SG&A increased Rp 2.05 trillion in absolute terms, and SG&A as percentage of sales increased from 15.4% to 16.6%, indicating less-than-proportional SG&A control relative to sales decline. This represents an **unfavorable SG&A variance**, the company was unable to flex fixed costs downward proportionally to sales deceleration.

The company achieved better SG&A leverage during the subsequent recovery period from 2023 to 2024 because its SG&A ratios decreased to 15.2% in 2023 and 14.7% in 2024. The company achieved positive SG&A variance as a percentage of sales because operating leverage from growing sales allowed the SG&A ratio to decrease.

Table-4: EBIT, Financing Costs, and Net Income Analysis (2020-2024)

Metric	2020	2021	2022	2023	2024
EBIT (Rp T)	9.20	11.67	13.38	14.39	16.32
Interest Expense (Rp T)	0.67	1.97	6.18	2.02	4.26
Net Forex Gain/(Loss) (Rp T)	—	0.13	(4.04)	0.64	0.68
Net Income (Rp T)	7.42	7.91	5.72	8.47	8.81
Effective Tax Rate (%)	28.2	20.5	24.0	26.1	23.4
Times Interest Earned (x)	1.52	1.93	2.21	2.38	2.70

Source: PT Indofood CBP Sukses Makmur Tbk Annual Financial Report

Based on Table-4, EBIT pattern showed operational stability but net income results showed significant effects from financing instability. ICBP achieved Rp 9.20 trillion EBIT during 2020 while keeping interest expenses at Rp 0.67 trillion which resulted in Rp 7.42 trillion net income and 1.52x times interest earned. The 2021 financial year brought EBIT expansion to Rp 11.67 trillion (26.8% higher than before) but interest expenses increased to Rp 1.97 trillion which led to Rp 7.91 trillion net income before taxes and better interest coverage at 1.93x. The 2022 financial crisis revealed a financing burden issue because EBIT reached Rp 13.38 trillion at 14.6% above pre-crisis levels yet net income dropped to Rp 5.72 trillion because of Rp 6.18 trillion in extraordinary interest expenses and Rp 4.04 trillion in net foreign exchange losses from Rupiah depreciation. The company achieved better interest coverage through EBIT expansion but this hid the actual currency-related problems. The 2023 financial year brought EBIT growth to Rp 14.39 trillion while interest expenses remained at Rp 2.02 trillion and foreign exchange gains reached Rp 0.64 trillion which resulted in net income recovery at Rp 8.47 trillion and interest coverage at 2.38x. The company achieved Rp 16.32 trillion in EBIT during 2024 while using Rp 4.26 trillion for interest expenses and earning Rp 0.68 trillion from foreign exchange gains which resulted in Rp 8.81 trillion net income and 2.70x interest coverage. To be highlighted, the company experienced rising financial instability because external occurrences happened outside of operator control. The company reached a 14.6% EBIT growth of Rp 1.71 trillion from 2021 to 2022 yet its **net income reached a five-year low** at Rp 5.72 trillion while showing a 27.7% decrease. The 2.3x difference between EBIT and net income results from extraordinary financing costs which include **Rp 4.04 trillion in net foreign exchange losses** while the company only reports interest expenses of about Rp 2.1 trillion on its underlying debt. The IDR lost about 10% of its value against the USD during 2022 when emerging market currencies declined because of worldwide monetary restrictions. The revaluation of ICBP's USD-denominated debt from Rp 20-25 trillion based on debt structure disclosures led to accounting losses that decreased reported profitability even though these losses were non-cash in nature.

4.3 Asset Efficiency and Working Capital Management

Table-5: Asset Turnover and Capital Productivity (2020-2024)

Metric	2020	2021	2022	2023	2024
Total Assets (Rp T)	103.5	118.0	115.3	119.3	126.0
Net Sales (Rp T)	46.64	56.80	64.80	67.91	72.60
Asset Turnover (x)	0.451	0.481	0.562	0.569	0.576
YoY Asset Growth (%)	—	+14.0	-2.3	+3.5	+5.6
YoY Sales Growth (%)	—	+21.8	+14.0	+4.8	+6.9
Fixed Assets (Rp T)	13.35	14.18	14.52	14.71	15.29
Fixed Asset Turnover (x)	3.49	4.01	4.46	4.62	4.76

Source: PT Indofood CBP Sukses Makmur Tbk Annual Financial Report

Based on Table-5, the company achieved better asset deployment efficiency throughout the entire time frame. The 2020 financial results showed ICBP achieved 0.451x asset turnover through Rp 46.64 trillion sales on Rp 103.5 trillion assets and 3.49x fixed asset turnover using Rp 13.35 trillion fixed assets. The 2021 expansion brought asset growth to Rp 118.0 trillion while sales reached Rp 56.80 trillion which resulted in better asset turnover at 0.481x and fixed asset turnover at 4.01x. The 2022 crisis forced asset efficiency improvements in asset deployment because assets decreased by 2.3% to Rp 115.3 trillion while sales increased by 14.0% to Rp 64.80 trillion which resulted in 0.562x asset turnover and 4.46x fixed asset turnover. The 2023 recovery period brought rising asset values to Rp 119.3 trillion through a 3.5% growth while sales reached Rp 67.91 trillion with a 4.8% expansion which produced 0.569x asset turnover and 4.62x fixed asset turnover. The company executed its disciplined capital allocation plan in 2024 through asset growth of 5.6% to Rp 126.0 trillion which resulted in sales expansion of 6.9% to Rp 72.60 trillion. The company achieved 0.576x asset turnover with 27.7% annual improvement since 2020 and 4.76x fixed asset turnover through its optimized capital deployment which reduced capital expenditures from 4.0% to 1.6% of sales. To be highlighted, the company achieved a 27.7% increase in asset turnover from 2020 to 2024 because its capital deployment efficiency rose from 0.451x to 0.576x. The company implemented a strategic plan to achieve this improvement by avoiding rapid capacity growth for market expansion while using its existing assets to support sales growth. Capital expenditure (estimated from fixed asset movements and depreciation) declined from ~Rp 1.87 trillion (4.0% of sales in 2020) to ~Rp 1.15 trillion (1.6% of sales in 2023-2024). The company maintained its conservative capital expenditure approach from the beginning of the crisis until its end because management chose to protect financial stability instead of pursuing growth initiatives. The current production facilities enabled higher sales through better sales productivity and production efficiency because fixed asset turnover increased from 3.49x to 4.76x.

Table-6: Working Capital Metrics and Cash Cycle Components (2020-2024)

Metric	2020	2021	2022	2023	2024
Accounts Receivable (Rp T)	5.72	7.14	8.22	8.80	6.73
Days Sales Outstanding	44.97	43.91	40.72	40.44	27.71
Inventory (Rp T)	9.05	9.83	10.97	10.37	11.68
Inventory Days	58.74	58.60	60.80	54.13	56.42
Accounts Payable (Rp T)	3.22	4.86	6.33	6.94	7.22
Days Payable Outstanding	37.12	30.68	34.70	33.87	36.08
Cash Conversion Cycle (d)	66.59	71.83	66.82	60.70	47.05

Source: PT Indofood CBP Sukses Makmur Tbk Annual Financial Report

Based on Table-6, the company achieved better operational efficiency because of its working capital performance. ICBP reported Rp 5.72 trillion in receivables during the 2020 financial year while maintaining a 44.97 DSO and Rp 9.05 trillion in inventory with 58.74 days and Rp 3.22 trillion in payables with 37.12 DPO which resulted in a 66.59-day cash conversion cycle. The receivable balance expanded to Rp 7.14 trillion during 2021 while DSO reached 43.91 days and inventory levels grew to Rp 9.83 trillion with a 58.60-day payment period but payables reached Rp 4.86 trillion with a 30.68-day payment period which resulted in a 71.83-day cycle. The 2022 crisis management period brought better control to operations because receivables reached Rp 8.22 trillion while DSO decreased to 40.72 days and inventory levels increased to Rp 10.97 trillion with 60.80 days of safety stock and payables reached Rp 6.33 trillion with 34.70 DPO which shortened the cycle to 66.82 days. The company launched an aggressive optimization plan during 2023 which led to receivables reaching Rp 8.80 trillion while DSO reached 40.44 days and inventory optimization reached Rp 10.37 trillion at 54.13 days and payables reached Rp 6.94 trillion with 33.87 DPO to achieve a 60.70-day cycle. The company achieved its best performance in 2024 when receivables decreased to Rp 6.73 trillion despite higher sales while achieving a 27.71 DSO (38% better than 2020) and maintaining inventory at Rp 11.68 trillion with 56.42 days and payables at Rp 7.22 trillion with 36.08 DPO to achieve a 47.05-day cycle which represented a 29% improvement and released Rp 3.9 trillion in working capital. To be highlighted, the company achieved outstanding working capital management during the crisis through its 29% reduction of the cash conversion cycle from 66.6 days in 2020 to 47.1 days in 2024. The company achieved a 38% improvement in receivable collection discipline through better collection techniques which shortened Days Sales Outstanding from 45.0 days in 2020 to 27.7 days in 2024. The improvement stands out because it happened while sales expanded which shows that distributors either (i) have become more disciplined in their payments because of better customer relationships and ICBP's market strength or (ii) the company has shifted its sales to channels that provide fast payments or (iii) the company has introduced stronger credit management and collection methods. The inventory days ranged from 54 to 61 days with the highest point of 60.8 days in 2022 which indicated crisis-period safety stock accumulation for supply disruption prevention. The company achieved 56.4 normalized inventory days in 2024 which proved its success in running just-in-time inventory and maintaining stable supply chain operations. The company reached high working capital efficiency through its 19.5-day improvement in cash conversion cycle which decreased from 66.6 days to 47.1 days. The company achieves annual sales of ~Rp 72.6 trillion while shortening its cash cycle by 19.5 days would **free up approximately Rp 3.9 trillion in available working capital** (Rp 72.6 trillion × 19.5/365) which could be used to reduce debt or distribute dividends or execute strategic investments without requiring outside funding.

Table-7: Liquidity Metrics and Current Ratio Trend (2020-2024)

Metric	2020	2021	2022	2023	2024
Current Assets (Rp T)	42.27	43.02	49.51	54.30	60.89
Current Liabilities (Rp T)	18.70	23.88	15.98	15.46	14.89
Current Ratio (x)	2.26	1.80	3.10	3.51	4.09
Acid Test Ratio (x)	1.76	1.49	2.39	2.91	3.44

Source: PT Indofood CBP Sukses Makmur Tbk Annual Financial Report

Based on Table-7, the company achieved a major enhancement of its liquidity situation after the crisis. The company maintained Rp 42.27 trillion in current assets while keeping Rp 18.70 trillion in current liabilities which produced a 2.26x current ratio and 1.76x acid test ratio during 2020. The 2021 crisis started with current asset growth at Rp 43.02 trillion but liabilities reached Rp 23.88 trillion which reduced the current ratio to 1.80x (its lowest point in five years) and acid test ratio to 1.49x. The company used defensive strategies in 2022 to strengthen its financial position through debt restructuring which decreased liabilities to Rp 15.98 trillion while current assets reached Rp 49.51 trillion to achieve a 3.10x current ratio and 2.39x acid test ratio. The company reached financial success in 2023 through its asset growth to Rp 54.30 trillion and its debt reduction to Rp 15.46 trillion which resulted in a 3.51x current ratio and 2.91x acid test ratio. The company built up excess cash throughout 2024 because its Rp 60.89 trillion current assets exceeded its Rp 14.89 trillion liabilities by achieving 4.09x current ratio and 3.44x acid test ratios which surpassed the typical optimal range of 1.5-2.0x to maintain crisis reserves instead of maximizing profits. To be highlighted, the company has achieved a major improvement in its current ratio which reached 4.09x in 2024 from 2.26x in 2020 and surpassed the standard optimal range of 1.5-2.0x. The company expanded its cash reserves during the crisis because its current ratio decreased to 1.80x at its lowest point but then grew to 3.10x as management built up liquidity reserves during uncertain times and maintained this level through 2024 even after the recovery began. The managerial accounting view of excess liquidity differs from textbook finance theory because it provides essential risk management capabilities and operational flexibility through its functions as crisis buffer and strategic optionality and covenant protection and supplier confidence.

4.4 Financial Leverage and Capital Structure Evolution

Table-8: Financial Leverage and Capital Structure (2020-2024)

Metric	2020	2021	2022	2023	2024
Total Debt (Rp T)	30.88	31.58	45.01	43.76	43.76
Total Equity (Rp T)	50.66	54.94	57.47	62.10	67.04
Debt Ratio (%)	29.8	26.8	39.0	36.7	34.7
Debt-to-Equity	0.610	0.575	0.783	0.705	0.653
Equity Multiplier (x)	2.01	2.15	2.02	1.91	1.86
Interest Coverage (TIE)	1.52	1.93	2.21	2.38	2.70

Source: PT Indofood CBP Sukses Makmur Tbk Annual Financial Report

Based on Table-8, the company showed its sophisticated deleveraging strategy through its capital structure evolution. ICBP reported Rp 30.88 trillion in debt obligations against Rp 50.66 trillion in equity value during 2020 which resulted in a 29.8% debt-to-equity ratio and 0.610 debt-to-equity ratio and 2.01x equity multiplier and 1.52x interest coverage ratio. The 2021 expansion brought debt to Rp 31.58 trillion and equity to Rp 54.94 trillion which resulted in debt ratio improvement to 26.8% and debt-to-equity ratio to 0.575 and equity multiplier to 2.15x and interest coverage to 1.93x. The 2022 crisis triggered debt growth because of currency fluctuations which resulted in debt value increasing to Rp 45.01 trillion although equity only experienced small growth to Rp 57.47 trillion which led to debt ratio reaching 39.0% and debt-to-equity ratio at 0.783 and equity multiplier at 2.02x and interest coverage at 2.21x due to EBIT expansion. The company initiated its debt reduction plan through 2023 by keeping debt at Rp 43.76 trillion while using retained earnings to increase equity to Rp 62.10 trillion which led to debt ratio reduction to 36.7% and debt-to-equity ratio to 0.705 and equity multiplier to 1.91x and interest coverage to 2.38x. The company maintained its conservative financial approach in 2024 by keeping debt at Rp 43.76 trillion while equity reached Rp 67.04 trillion which resulted in a 34.7% debt ratio and 0.653 debt-to-equity ratio and 1.86x equity multiplier and 2.70x interest coverage ratio. To be highlighted, the 2022 leverage dynamics show that debt-to-assets ratio increased to 39.0% (from 26.8% in 2021) even though the company did not take on new cash debt. The mechanical leverage increase demonstrates how IDR weakness led to higher IDR values of foreign currency debt which created a hidden financial strain through currency volatility without any new debt issuance or capital deployment. The company followed a disciplined debt reduction plan starting from 2022 which maintained absolute debt at Rp 43.8 trillion while using retained earnings to build equity and decrease debt-to-assets from 39.0% to 34.7% and debt-to-equity from 0.783 to 0.653 and equity multiplier from 2.02x to 1.86x and interest coverage from 2.21x to 2.70x. The company follows a deleveraging path which demonstrates its focus on maintaining a solid balance sheet instead of pursuing maximum return on equity.

5. SEGMENT PERFORMANCE AND RESPONSIBILITY ACCOUNTING ANALYSIS

Table-9: Segment Operating Profit and Margin Performance (2022 vs. 2021)

Segment	2022 Sales (Rp B)	2021 Sales (Rp B)	Growth (%)	2022 Op. Margin (%)	2021 Est. Op. Margin (%)	Variance (pp)
Noodles	47,475.6	40,991.2	+15.8	22.9	~21.5	+1.4
Dairy	9,443.5	9,144.8	+3.3	7.1	~12.0	-4.9
Snack Foods	3,970.4	3,390.2	+17.0	7.9	~10.5	-2.6
Seasonings	3,362.7	2,853.6	+17.8	11.8	~13.5	-1.7
Nutrition	1,161.3	1,048.3	+10.8	7.3	~10.0	-2.7
Beverages	1,544.7	1,341.9	+15.1	4.9	~8.5	-3.6

Source: PT Indofood CBP Sukses Makmur Tbk Annual Financial Report

Based on Table-9, segment performance showed that different business units of the organization used different crisis management systems. The Noodles division maintained its stability because sales increased by 15.8% from Rp 40,991.2 billion in 2021 to Rp 47,475.6 billion in 2022 while operating margin expanded from 21.5% to 22.9% which generated a 1.4 percentage point positive variance because of increased scale operations and strong Indomie brand and staple product pricing capabilities. The Dairy division faced intense market difficulties because its sales growth reached 3.3% to Rp 9,443.5 billion yet its operating margin decreased to 7.1% from 12.0% which produced a 4.9 percentage point negative variance because of premium product demand sensitivity and USD-based import expenses. The Snack Foods segment reported different performance levels because its sales increased by 17.0% to Rp 3,970.4 billion but its operating margin decreased from 10.5% to 7.9% which resulted in a 2.6 percentage point negative variance despite its volume expansion. Seasonings achieved 17.8% sales growth to Rp 3,362.7 billion but their operating margins decreased from 13.5% to 11.8% which resulted in a 1.7 percentage point negative variance because of rising commodity costs despite their pricing strategies. The Nutrition segment experienced 10.8% sales growth to Rp 1,161.3 billion but its operating margin decreased from 10.0% to 7.3% which resulted in a 2.7 percentage point negative variance. The Beverages segment achieved 15.1% sales growth to Rp 1,544.7 billion but its operating margin suffered a significant decline from 8.5% to 4.9% which resulted in a 3.6 percentage point negative variance because of rising energy costs and intense promotional activities. To be highlighted, the analysis of segment-level variance demonstrates how managers respond to commodity crises through different actions which generate various outcomes. The Noodles division achieved positive results through its 15.8% sales growth and +1.4pp favorable variance which resulted from effective pricing and cost management enabled by scale economies and brand strength. The Dairy division experienced a major negative performance of -4.9 percentage points because of both demand elasticity and import cost exposure. This variance analysis enables targeted managerial intervention: consider SKU rationalization toward higher-margin products, alternative sourcing, or business model adjustment for underperforming segments.

6. CONCLUSION

PT Indofood CBP Sukses Makmur Tbk's financial performance from 2020 to 2024 shows how managerial accounting systems help organizations survive commodity price fluctuations and currency instability and market disturbances. The ROE decreased from 14.40% in 2021 to 9.96% in 2022 because operational profitability decreased (net profit margin fell by 509 bps) due to higher commodity input costs that exceeded price increases and resulted in foreign exchange losses from financing. The company achieved a 13.15% ROE in 2024 through its pricing discipline and product mix optimization and cost control efforts instead of using financial leverage.

The DuPont Decomposition Value enables management teams and stakeholders to detect permanent operational improvements through its analysis of ROE into profitability and efficiency and leverage components. The asset turnover of ICBP rose to 0.576x from 0.451x and the equity multiplier dropped to 1.86x from 2.15x which shows the company's success in capital management under various market scenarios. The company used working capital to act as a crisis buffer through its efforts to decrease DSO from 45 days to 27.7 days and optimize inventory management which resulted in a 19.5-day reduction of the cash conversion cycle and released Rp 3.9 trillion in working capital while showing operational discipline. Divisional variance analysis reveals performance divergence (noodles +1.4pp favorable vs. dairy -4.9pp unfavorable) enabling targeted managerial corrective action and strategic repositioning priorities. Management's deliberate deleveraging despite ROE-suppressing effects reflects mature risk management prioritizing long-term stakeholder value over short-term metrics, an orientation supported by academic evidence of superior long-term outcomes. The company maintains operational flexibility through its 66% variable cost ratio but profit margins will decrease because management lacks control over commodity price inflation unless the company uses pricing strategies or distributor relationships to offset these effects which demonstrates the critical role of these factors in staple manufacturing competitiveness.

7. STRATEGIC IMPLICATIONS AND MANAGERIAL RECOMMENDATIONS

7.1 Lessons from DuPont Decomposition (Profitability vs. Financial Engineering)

The five-year DuPont analysis delivers a critical strategic insight that distinguishes ICBP's approach to financial management from more conventional practices: sustainable ROE restoration depends fundamentally on profitability normalization, rather than financial leverage expansion. The ICBP ROE declined from 14.40% in 2021 to 9.96% in 2022 before it partially recovered to 13.15% in 2024 but remained 1.5 percentage points below the 2021 level. The company made major operational improvements across different business areas even though its return on equity (ROE) followed this particular trend.

Examining the components reveals a nuanced picture. The company achieved a 12.25% net profit margin in 2024 after its lowest point of 8.84% in 2022 which led to a 45% improvement yet remained 1.7 percentage points lower than 2021 levels. The company reached a 27.7% increase in asset turnover by improving from

0.451x in 2020 to 0.576x in 2024 through its independent working capital management and capital deployment strategies which operated without dependence on profitability changes. The equity multiplier decreased from 2.15x in 2021 to 1.86x in 2024 because of capital structure adjustments made by the company rather than financial distress or covenant violations.

The company could have used financial engineering to increase ROE by taking on more debt after 2023 which would have increased the equity multiplier to achieve higher ROE than before but only resulted in small margin growth. ICBP chose to reduce their asset leverage which caused a short-term 100 basis point decrease in ROE to establish financial stability and achieve better balance sheet health. The management approach demonstrates advanced capital structure thinking because it chooses to maximize long-term stakeholder value instead of focusing on short-term performance goals. Academic research consistently confirms this orientation: companies that restore profitability through sustained operational improvements while simultaneously reducing financial leverage typically generate superior long-term shareholder value compared to those relying primarily on leverage expansion for ROE recovery. The ICBP study demonstrates that the organization follows a systematic capital allocation system.

7.2 Recommendations for Enhanced Managerial Practice

The evaluation of ICBP financial results between crisis times and growth periods shows multiple chances to boost organizational performance and crisis resistance by using better managerial accounting systems. The proposed recommendations stem from both the DuPont and ratio analysis results and the established managerial accounting best practices.

The ICBP needs to enhance its current hedging and currency risk management systems. Foreign exchange losses of Rp 4.04 trillion in 2022 financial results eliminated most of the company's net income while its operating profit grew significantly. The company operates in a market where currency movements exceed its capacity to control them. Forward contracts and currency swaps for USD-denominated debt and essential commodity imports will function as official hedging instruments to minimize financing risks when IDR depreciates. The method enables both financial risk reduction and stakeholder confidence growth in financial management through regular updates about hedging policies and currency scenario sensitivity analyses. Natural hedges through USD revenue diversification from international operations could also be strategically developed to offset financing exposures.

The organization needs full tracking and forecasting systems to monitor commodity expenses. The current managerial accounting system reports total COGS but tracking wheat and palm oil and dairy prices against purchasing data on a monthly basis would produce more accurate variance analysis results. The analysis of total cost variances through commodity price changes and usage/efficiency performance enables organizations to identify market-driven factors from operational performance issues which helps them take specific corrective measures. Forward-looking hedging decisions that use commodity price forecasts together with strategic supplier negotiation based on commodity price cycles help organizations control margin volatility when commodity prices rise.

Organizations can implement particular strategic initiatives to boost their management capabilities through segment-level financial accountability which represents their third advantage. The current segment reporting system does not provide sufficient detail about how costs are distributed and working capital is allocated to individual divisions. The implementation of segment-specific cost behavior analysis to identify fixed versus variable costs within segments along with segment contribution margin reporting and segment return on invested capital (ROIC) calculations will create detailed responsibility accounting and performance assessment methods. The implementation of segment-specific budgeting and variance analysis processes would give divisional managers complete responsibility frameworks and senior management would be able to track performance drivers and emerging challenges across all business units.

Working capital optimization needs to maintain its position as a high-return opportunity which generates cash flow according to the fourth requirement. While the current cash conversion cycle of 47 days is strong, further improvement is achievable through strategic initiatives. The company will reach faster cash conversion by lowering days sales outstanding to 25 days through enhanced credit management and stronger customer relationships. The implementation of supplier-managed inventory systems for non-perishable goods and dynamic discounting programs for early payment and supply chain finance solutions with financial institutions will optimize working capital and generate funds for strategic initiatives.

The organization needs to establish a formal capital allocation framework and policy at ICBP. The current excess liquidity shows through the 4.09x current ratio because the company lacks both an explicit capital allocation framework and an optimization system. The quality of capital deployment decisions and stakeholder confidence in financial stewardship will improve through the implementation of target leverage ratios (0.6x debt-to-equity) and defined return hurdles for investments and M&A evaluation frameworks and integration plans and regular capital allocation assessments by the Board and senior management. The clarity of dividend policy regarding free cash flow generation and capital requirements would enhance investor predictability and decrease distribution-related uncertainty.

8. LIMITATIONS

The research study contains a complete and thorough analysis of its defined scope but researchers need to disclose all its recognized limitations. The results need evaluation through these constraints to use them for strategic choices and policy development.

The research depends solely on consolidated audited financial statements which the Indonesia Stock Exchange makes public and annual reports publish. The statements contain reliable financial information that follows Indonesian Financial Accounting Standards and International Financial Reporting Standards yet they lack detailed product-line profitability data and SKU pricing information and customer-specific margin details. The lack of unit-level economics prevents exact cost distribution analysis which makes it impossible to identify whether price increases on core noodle products or specialty items with higher margins caused the margin recovery between 2022 and 2024. The evaluation of customer-specific margin changes becomes impossible because pricing power functions at different levels between distribution channels and customer segments. The analysis shows standard business-wide patterns that lack specific operational details which would show how the company positions itself strategically and performs commercially.

The company does not present derivative hedging activities or notional hedge amounts or fair value accounting treatments in its public financial statements. The disclosure gap prevents exact evaluation of the company's detailed currency and commodity risk management methods. The analysis of 2022 foreign exchange losses and financing volatility revealed no hedging activity yet investors would gain better understanding of risk management strategies through complete disclosure of hedging programs. The system fails to track particular hedging operations which results in reduced analysis accuracy because it cannot monitor specific hedging activities such as large procurement deals or export revenue streams.

The third point shows that segment reporting disclosures contain insufficient information which prevents complete responsibility accounting analysis. The current disclosures show segment revenue and operating profit but they do not break down costs by segment or present working capital components by division or segment capital structure. The information gap makes it impossible to determine exact return on invested capital for specific segments while also lowering the level of detail in responsibility center accountability assessments. The variance analysis for divisional performance therefore relies partly on inference and estimation rather than directly available data.

The analysis fails to include scenario modeling or sensitivity analysis which would show how ROE and financial performance would change under different commodity price scenarios and exchange rate and demand elasticity assumptions. The five-year historical analysis shows clear evidence of actual performance behavior but risk assessment under various macroeconomic scenarios would improve the evaluation of future system vulnerability and resilience. The analysis of such scenarios needs detailed modeling of commodity price movements and currency fluctuations and demand sensitivity and pricing behavior which would benefit from more detailed data that is not accessible at present.

The analysis does not fully expose the off-balance-sheet risks and impairment testing difficulties that stem from ICBP's asset base material concentration in goodwill from international acquisitions which represents

44% of consolidated assets as of December 2023. The goodwill impairment testing process conducted by management faces external audit oversight but the analysis lacks access to specific impairment model assumptions and subsidiary entity goodwill distribution and impairment trigger sensitivity tests. The exact amount of potential impairment losses and their probability during margin compression and currency weakness events in 2022 remains unclear to outside analysts who use public data.

The analysis delivers important findings about ICBP's financial stability and its crisis management approaches and demonstrates that profitability normalization stands as a more vital factor than financial engineering for maintaining long-term shareholder value. The consolidated company level results show strong reliability yet more detailed internal management accounting systems data would produce even better actionable findings.

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CHAPTER 6
Financial Performance Analysis of PT. Astra Otoparts Tbk. during the Emerging of Electric Vehicle (EV) in Indonesia using Altman Z-Score Model

Jonathan WIJAYA
Institute IPMI, Indoneisa
jonathan.wijaya@ipmi.ac.id
Orcid: 0009-0006-0940-7511

Wiwiek Mardawiyah DARYANTO
Institute IPMI, Indonesia
wiwiek.daryanto@ipmi.ac.id
Orcid: 0000-0003-35825857

Daffa Arindra PUTRA
Institute IPMI, Indonesia
daffa.putra@ipmi.ac.id
Orcid: 0009-0002-5602-7950

ABSTRACT

Since the COVID-19 period to the current situation (2025), the automotive spare parts industry has experienced different output of income and losses. Therefore, the emergence of EV vehicles is also giving massive effects on how the automotive market has become. This study evaluates the financial performance of PT. Astra Otoparts Tbk. (AUTO) as one of the companies in the industry to assess the company's financial stability and bankruptcy risk utilizing the Altman Z-Score model. Since the great loss in 2020, AUTO had proven to regain their income afterwards including the market shifts. By analyzing financial statements from the past five years (2020-2024), the research identifies the impact and progression during the time of the emerging EV market on PT. Astra Otoparts' financial health and stability. The results reveal key insights into the company's liquidity, solvency, and profitability, highlighting potential risks and opportunities in the evolving automotive industry. This analysis provides valuable information for investors, management, and policymakers to make informed decisions in navigating the transition towards electric mobility in Indonesia. The company was in the Grey Zone of caution as the analysis started in 2020, with a Z-Score of 2.490. In 2021, this position marginally weakened to 2.470. In 2022, a significant improvement started, bringing the score closer to the financial safety level at 2.798. With an excellent score of 3.057 in 2023, the organization successfully crossed this crucial threshold and was securely placed in the Safe Zone. Despite a minor slowdown, this secure status persisted throughout 2024, with a final score of 3.022, indicating a persistent, low likelihood of financial trouble.
Keywords: Financial performance; EV vehicles; Altman Z-Score model

INTRODUCTION

The COVID-19 epidemic spread throughout the world in late 2019 and struck Indonesia in early 2020, disturbing several types of companies including the automotive component industry. Before the Indonesian president formally declared that the pandemic would stop in mid-2023, another occurrence that arose in early 2022 was the emergence of the electric car sector, which once again had an effect on the automotive component industry. These phenomenon's impact on companies can be measured and identified in their financial reports by providing information of fluctuations in their financial position. Financial statement analysis allows stakeholders to systematically assess a firm’s operational performance and financial resilience, especially by applying predictive tools such as the Altman Z-Score model (Rismawati et al., 2022).

In manufacturing and non-manufacturing firms, the financial report typically comprises a balance sheet, an income statement, a cash flow statement, changes in equity, and comprehensive note all critical for calculating predictive ratios using models like Altman’s (Kurniawan et al., 2023). Management of the organization may review the outcomes of decisions made in the prior period based on the information generated. The business can assess and apply the findings of its investigation and decide on optimal approaches for the following time period.

Financial ratios can be generated using data collected from the financial statements, which included the income statement, balance sheet, and other information. Calculations demonstrate the company's liquidity, leverage, profitability, and asset utilization, which will provide indicators to take into consideration for designing prospective strategies and determine the company’s financial risks.

The objectives of this financial performance analysis are: 1) to determine the company's liquidity based on assets utilization to finance short-term obligations and operating requirements; 2) to determine the profitability of the business depending on the amount of asset financing; 3) to determine efficiency of the business asset management in generating profits; 4) to determine the company's financial stability based on the market value of the company's equity against financial obligations; 5) to determine efficiency of the business asset management in generating sales.

This research is conducted to assess the financial condition of PT. Astra Otoparts Tbk. The company manages 70 subsidiaries, which are classified into two principal business divisions, namely manufacturing and trading. Its operational activities are primarily centered on the production and distribution of a diverse range of automotive components for both two-wheeled and four-wheeled motor vehicles. The company’s predominant market segments include original equipment manufacturers (OEMs) as well as the automotive aftermarket, particularly the replacement parts sector.

LITERATURE REVIEW

Risk predictions were generated using the Altman Z-Score approach for anticipating financial distress in China's economic development due to instability related by the China-United States trade war, based on research by Desheng et al. (2022). Its average accurate classification rate was found to be 86.64%. This approach's meaning is that it could provide an early warning signal on a company's financial situation, assisting management and associated personnel to take the necessary precautions to avoid losses. According to Nikhil (2021), the impact of the Covid-19 pandemic has driven manufacturers in the automobile industry to lose ground, since the sector has not been able to recover in terms of delivering operational and production targets beyond 2021. Additionally, the automobile industry is currently experiencing updated challenges as a result of the global surge in electric vehicles (EVs), involving necessity to quickly adapt in order to maintain its market share (Francisco et al., 2024).

Businesses in the automotive industry produce spare parts and other additional equipment in parallel with manufacturing and selling vehicles. Given its extremely fluctuating and unpredictable demand, the spare parts industry frequently faces major issues, which resembles the automotive industry as an entire sector (Frandsen et al., 2020). As a result, the automotive spare parts industry has gone through a series of changing events affecting the strategies that each company executes to produce substantial results. In order to make decisions on the forthcoming possible action, the continued instability requires an assessment of the financial health of an automotive company, particularly any risk or potential for bankruptcy.

The Altman Z-Score can accurately classify manufacturing companies, citing another study conducted in Lebanon. It offers information on potential bankruptcy as well as accuracy on par with financial institutions. According to El et al. (2014), manufacturing companies can benefit from the resulting classification as a benchmark to identify key factors for enhancement of growth scores as compared to counterparts in the same industry.

The Altman Z-Score model is a method used in analysis based on a company's financial information. In recent years, bankruptcy risk prediction has evolved with the availability of financial statement data (Alessandro, 2025). Through financial statements, the main focus of analysis is on financial ratios, using performance-based measurements obtained from data from a specific period. Based on operational efficiency and asset management, calculations can be performed to obtain figures indicating the company's financial classification zone.

RESEARCH METHOD

The Altman Z-Score methodology, a technique used to evaluate a business's financial and predicting the possibility of bankruptcy with a 95% accuracy rate in analyzing financial distress (Altman, 1968), was applied in this study. By analyzing financial ratios, the Altman Z-Score involves financial statements as a forecasting tool (Setyaningrum et al., 2020). Table 1 illustrates the progression of the Altman Z-Score model over time, including the original formulation, subsequent revisions, and later simplifications designed to improve applicability across various industries. Altman refined the formula twice since the initial model was introduced in 1968:

Table 1. Comparison of Altman Z-Score Formulas and Adjustments Across Model Versions

Year	Model	Formula	Adjustments
1968	Altman Z-Score (Original)	Zi = 1.2 (X1) + 1.4 (X2) + 3.3 (X3) + 0.6 (X4) + 1 (X5)	-
1983	Altman Z-Score (Revised)	Zi = 0.717 (X1) + 0.874 (X2) + 3.107 (X3) + 0.420 (X4) + 0.998 (X5)	Private companies do not have a stock market price, Altman adjust X4 (Market Value of Equity) is changed to Book Value of Equity, which may be employed to assess risk for private companies.

1995	Altman Z-Score (Modified/Simplified)	Zi = 6.56(X1) + 3.26(X2) + 6.72(X3) + 1.05(X4)	The X5 variable (Sales to Total Assets) is considered to increase sensitivity considering different asset size between manufacturing and non-manufacturing industries, Altman removes this variable to provide flexibility and universal predictions for various companies.

Source: Abdul et al (2024).

Considering PT. Astra Otoparts Tbk. is a manufacturing company that manufactures automotive spare parts, the Altman Z-Score Revised method—which uses the formula Zi = 0.717 (X1) + 0.874 (X2) + 3.107 (X3) + 0.420 (X4) + 0.998 (X5)—is applied as the details below:

- X1 = Working Capital to Total Assets
- X2 = Retained Earnings to Total Assets
- X3 = Earnings Before Interest and Taxes (EBIT) to Total Assets
- X4 = Market Value Equity to Book Value of Total Debt
- X5 = Sales to Total Assets

Based on the calculations, the score defines interpretation of:

Table 2. Altman Z-Score Classification and Bankruptcy Risk Interpretation

Score Range	Interpretation	Bankruptcy Risk
Zi > 2.60	Safe Zone	Low risk of bankruptcy
1.10 < Zi < 2.60	Grey Zone	Moderate risk, the company requires surveillance
Zi < 1.10	Distress Zone	High risk of bankruptcy

Souce: Kurniadi (2021)

Kurniadi (2021) states that the formula (Zi) is used to construct the Z-Score (Zi) or bankruptcy index where the results of the analysis represent a company's financial "area" as it applies to its bankruptcy risk.

Working Capital to Total Assets (WCTA)

A company's liquidity and the proportion of its net working capital are measured by Working Capital to Total Assets Ratio. This ratio indicates the amount of a company's assets which are funded by short-term sources. The greater ratio reveals the company's liquidity position to meet short-term obligations and the lower the likelihood of short-term cash flow issues.

$$WCTA = \frac{(Current\ Assets\ -\ Current\ Liabilities)}{Total\ Assets}$$

Source: Altman et al (1983).

Retained Earnings to Total Assets (RETA)

Retained Earnings to Total Assets Ratio evaluates a company's relative age and cumulative profitability over time. A long-running, profitable business that finances its assets with internally generated profits instead of using loans is indicated by a high positive retained earnings ratio. A small or negative ratio suggests cumulative losses or a startup company.

$$RETA = \frac{Retained\ Earning}{Total\ Assets}$$

Source: Altman et al (1983).

Earnings Before Interest and Taxes to Total Assets (EBITTA)

Earnings Before Interest and Taxes to Total Assets Ratio represents operational profitability, indicating how efficiently a business generates operating profit off its assets. As a result, it is thought to be the most accurate measure of a company's capacity to withstand financial troubles or its ability to generate stable cash flow.

$$EBITA = \frac{Earning\ Before\ Interest\ and\ Tax\ (EBIT)}{Total\ Assets}$$

Source: Altman et al (1983).

Market Value Equity to Book Value of Total Debt (MVBV)

Solvency and market sensitivity to debt are measured by Market Value Equity to Book Value of Total Debt Ratio. This ratio demonstrates how far a company's market value may decrease before its liabilities exceed its assets. The company's market protection against a potential collapse in its book value increases with this ratio.

$$MVBV = \frac{(Total\ Assets - Total\ Liabilities)}{Total\ Liabilities}$$

Source: Altman et al (1983).

Sales to Total Assets (SETA)

Compared to the company's investment in total assets, this ratio indicates if the company produces sufficient sales volume. This ratio measures how efficiently management handles the company's assets to generate sales and profits.

$$SETA = \frac{Sales}{Total\ Assets}$$

Source: Altman et al (1983).

RESULT AND DISCUSSION

According to the Altman Z-Score (Revised) method calculation findings, PT. Asta Otoparts Tbk. was in the "Grey Zone" during 2020 and 2021 before successfully crossing into the "Safe Zone" the following year, as shown in Table 3, which presents the Altman Z-Score (Revised) results for the period 2020–2024.

Table 3. Computed Altman Z-Score (Revised Model) for PT Astra Otoparts Tbk, 2020–2024

Z-Score Index (Zi)	Formula	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024
ZI	0,717 (X1) + 0,874 (X2) + 3,107 (X3) + 0,420 (X4) + 0,998 (X5)	2.490	2.470	2.798	3.057	3.022

Source: processed by Authors (2025).

The COVID-19 pandemic peaked in 2020 and 2021, when several companies barely made it through. By the end of 2020, the pandemic had affected almost 88% of Indonesian businesses and caused losses, according to the Indonesian Ministry of Manpower. In line to the aforementioned, PT. Astra Otoparts Tbk. reported a sharp drop in performance as a result of the COVID-19 pandemic's major effects on the automotive industry, leading to lost IDR 296.06 billion in the first half of 2020 compared to the prior year (CNBC, 2020). According to calculations made from the Altman Z-Score method, PT. Astra Otoparts Tbk. had index values of 2,490 and 2,470, ranging between 1.10 and 2.60, or classified as in the "Grey Zone." PT. Astra Otoparts Tbk.'s financial report recorded a negative of total comprehensive income of IDR 138.73 billion. This was proven by the Earnings Before Interest and Taxes to Total Assets (EBITTA) or the X3 calculation of 0.001 in 2020, indicating low total revenue (or loss) compared to the company's assets. Decreased buying power for automotive spareparts and disruptions to operations have been the explanations of this low ratio. Table 4 shows the calculation result of the financial ratios required for the Altman Z-Score model of PT Astra Otoparts Tbk. (2020-2024).

Table 4. Calculated Z-Score Indicators of PT Astra Otoparts Tbk. for Period 2020 -2024

Ratio	Formula	31 Dec 2020	31 Dec2021	31 Dec 2022	31 Dec 2023	31 Dec 2024
Working Capital to Total Assets (WCTA)	(Current Assets - Current Liabilities) ÷ Total Assets	0.157	0.136	0.171	0.185	0.209
Retained Earnings to Total Assets (RETA)	Retained Earnings ÷ Total Assets	0.438	0.422	0.444	0.481	0.498
Earnings Before Interest and Taxes to Total Assets (EBITA)	Earnings Before Interest and Tax (EBIT) ÷ Total Assets	0.001	0.044	0.091	0.113	0.106
Market Value Equity to Book Value of Total Debt (MVBV)	(Total Assets - Total Liabilities) ÷ Total Liabilities	2.883	2.322	2.386	2.866	2.864
Sales to Total Assets (SETA)	Sales ÷ Total Asset	0.782	0.894	1.003	0.951	0.907

Source: processed by Authors (2025).

PT. Astra Otoparts Tbk. is making the most of every opportunity for economic recovery regardless of the continued pandemic in 2021, including the Jakarta area's mandatory emissions testing requirements for four-wheeled cars (Bisnis.com, 2021). According to Wanny Wijaya, finance director of Astra Otoparts at the time, the policy generated 11.04 trillion rupiah in revenue by September 2021, however sales in 2019 have not yet reached pre-pandemic levels.

According to the calculations for 2022 to 2024, PT. Astra Otoparts Tbk.'s classification went from the "Grey Zone" to the "Safe Zone," with a Z-Score Index (Zi) over 2.60. This suggests that Astra Otoparts has responded successfully to the pandemic's setbacks. Over the past three years, PT. Astra Otoparts Tbk. has constantly remained in the "Safe Zone," proving that it has not only survived challenges but also continued to operate with efficient use of its assets. For PT. Astra Otoparts Tbk, the growth of electric vehicles (EVs) in Indonesia creates an opportunity. According to the company's president director, Hamdhani Dzulkarnaen, the electric vehicle ecosystem is essential to the company's growth, which is also focused on ensuring its position as a significant player in the automotive industry (Indopremier, 2022). PT. Astra Autoparts Tbk. is seizing the opportunity to produce vehicle battery charging systems that can be sold directly to Original Equipment Manufacturers (OEMs) for all kinds of chargers in accordance with the increasing trend of vehicle electrification (CNBC, 2023). For drivers who currently run electric vehicles, Astra Otoparts is strategically deploying these chargers in locations like rest areas. The company's strategy stimulates both the growth of the industry as a whole and sales to enhance financial performance.

CONCLUSION, LIMITATION AND FUTURE RESEARCH

According to calculations made using the Altman Z-Score approach, PT. Astra Otoparts Tbk. experienced a number of shifting events in circumstances that had an impact on its financial situation. From the COVID-19 pandemic to the arrival of electric vehicle development in Indonesia, PT. Astra Otoparts Tbk. was able to endure the hazards and recover through. Regardless of being in the "Grey Zone" during 2020 and 2021, PT. Astra Otoparts Tbk. was able to return and succeed into the "Safe Zone" by taking all possibilities that came with innovation in the industry as well as regulatory adjustments.

1. **Initial Caution (2020 - 2021):** For the first two years, the company's score remained comfortably inside the Grey Zone, indicating that although there was little imminent risk of bankruptcy, there was underlying financial fragility or a need for improved working capital and profitability. The minor decline in 2021 points to a transient susceptibility.
2. **Turnaround Year (2022):** The significant rise in 2022 (from 2.470 to 2.798) suggests that management executed excellent strategies to raise these significant underlying ratios (X1 to X5). This leap put the business squarely on the Safe Zone's edge.
3. **Achieving Safety (2023):** The score reached 3.057, surpassing the crucial 2.99 threshold. This is the most important breakthrough since it formally removes the business from the cautionary bracket, indicating a far more durable and resilient financial structure.
4. **Sustained Health (2024):** The transition to the Safe Zone is sustainable and not a one-time occurrence, as evidenced by the 2024 score of 3.022. Despite a little decline from the 2023 peak, the business was able to sustain a high degree of financial stability.

The Altman Z-Score (Revised) as the main focus is a powerful predictor of the likelihood of financial difficulty it may not capture all aspects of the company's financial and operational resilience. For a better result, additional financial measures or valuation ratios (such as liquidity ratios, debt-to-equity, and P/E ratios) are not mentioned. This research is limited to identify the area or zone of the company in a certain period without going further into the financial strategies implemented.

Future research should look into the long-term financial effects of this change given the focus on the new electric vehicle (EV) ecosystem plan (battery charging systems for OEMs and public charging deployment). This could entail projecting the EV segment's revenue contribution and profit margins as well as evaluating the possible impact on the company's Z-Score and overall valuation five to ten years from now.

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CHAPTER 7
Financial Performance Analysis of Pt Sumber Alfaria Trijaya Tbk (Alfamart) Using Financial Ratio Approach During 2020–2024

Fatan Mubarok IMRON
IPMI Institute, Indonesia
fatan.imron@ac.id
Orcid: 0009-0007-5547-5109

Wiwiek Mardawiyah DARYANTO
IPMI Institute, Indonesia
wiwiek.daryanto@ipmi.ac.id
Orcid: 0000-0003-3582-5857

Galih GERHANA
IPMI Institute, Indonesia
galih.gerhana@ipmi.ac.id
Orcid: 0009-0007-9206-1562

ABSTRACT

This study aims to analyze the financial performance of PT Sumber Alfaria Trijaya Tbk (Alfamart), one of Indonesia's largest retail companies, during the period of 2020–2024. The research employs a financial ratio approach, focusing on key indicators such as profitability, liquidity, solvency, and activity ratios to evaluate the company's overall financial health and operational efficiency. The data were obtained from Alfamart's audited financial statements published by the Indonesia Stock Exchange (IDX).

The results indicate that Alfamart maintained strong profitability throughout the period, reflected in its stable return on assets (ROA) and return on equity (ROE) despite macroeconomic fluctuations caused by the COVID-19 pandemic and global inflation pressures. Liquidity ratios, including current and quick ratios, demonstrate the company's consistent ability to meet short-term obligations, while solvency ratios suggest a balanced capital structure with moderate reliance on debt. The activity ratios further show effective inventory and asset management, which contribute to the company's sustained growth and competitive advantage in the Indonesian retail sector.

The findings emphasize the importance of efficient cost management, working capital optimization, and adaptive business strategies to maintain financial resilience in a rapidly evolving retail environment. This \ study provides valuable insights for investors, policymakers, and retail managers in understanding the dynamics of financial sustainability in emerging markets.

Keywords: Financial Performance, Profitability, Liquidity, Solvency, Alfamart, Retail Industry, Indonesia.

1. Introduction

PT Sumber Alfaria Trijaya Tbk (Alfamart) operates one of the largest minimarket networks in Indonesia, with thousands of stores across the country. As a market leader, Alfamart's financial strength is critical not only for corporate valuation but also for its strategic competitiveness against major industry rivals such as Indomaret and Super Indo. The period between 2020 and 2024 represents a volatile economic environment due to the COVID-19 pandemic, inflationary pressures, supply chain disruptions, and rising operational expenses. These conditions highlight the importance of financial ratio analysis as an essential tool to assess corporate performance sustainability. Therefore, this study aims to analyze Alfamart's financial performance during this period using relevant financial ratio indicators.

1.1 Literature Review

Financial ratios are widely used in corporate performance evaluation as they provide measurable insights into profitability, liquidity, leverage, and operational efficiency (Brigham & Houston, 2022). Profitability ratios evaluate a firm's ability to generate earnings relative to assets and equity. Liquidity ratios assess the firm's ability to satisfy short-term obligations, while solvency ratios examine long-term financial risk and capital structure. Activity ratios measure how efficiently a firm utilizes its assets to generate revenue (Ross, Westerfield, & Jaffe, 2021).

Previous studies in the retail sector emphasize that high inventory turnover and strong working capital management are key drivers of financial performance due to the fast-moving nature of consumer goods (Kotler & Keller, 2020). Therefore, analyzing financial performance through ratio comparison enables deeper understanding of strategic and operational efficiency.

1.2 Theoretical Framework

This study applies financial performance theories including profitability theory, liquidity theory, and operational efficiency frameworks. These theories support the use of ROA, ROE, Current Ratio, Debt-to-Equity Ratio, and Inventory Turnover as indicators of company stability and effectiveness.

2. METHODOLOGY

2.1 Research Design

The research applies a descriptive quantitative approach using secondary data from audited financial statements and official disclosures published on the IDX website and Alfamart Annual Reports

2.2 Data Sources

Data were obtained from Alfamart's audited financial statements (2020–2024) including balance sheets, income statements, and cash flows. Supporting data were taken from financial media outlets, industry analyses, and market reports.

2.3 Financial Ratios

The ratios analyzed include: Return on Assets (ROA), Return on Equity (ROE), Current Ratio, Debt-to-Equity Ratio (DER), Inventory Turnover

3. RESULTS AND DISCUSSION

3.1 Financial Data Summary

Year	Net Income (Trillion IDR)	Total Assets (Trillion IDR)	Equity (Trillion IDR)	Inventory (Trillion IDR)
2020	2.01 [44]	27.7 [45]	12.5 [46]	10.9 [47]
2021	2.24 [48]	30.1 [49]	13.9 [50]	11.3 [51]
2022	2.47 [52]	32.5 [53]	14.8 [54]	12.1 [55]
2023	3.40 [56]	34.24 [57]	15.9 [58]	13.1 [59]
2024*	3.14 [60]	38.79 [61]	17.69 [62]	13.6 [63]

Figure 1.1

3.2 Financial Ratio Calculations

Year	ROA (%)	ROE (%)	Current Ratio	Inventory Turnover
2020	7.26 [67]	16.08 [68]	1.45 [69]	5.5 [70]
2021	7.44 [71]	16.11 [72]	1.51 [73]	5.7 [74]

2022	7.60 [75]	16.71 [76]	1.56 [77]	5.8 [78]
2023	9.93 [79]	21.38 [80]	1.63 [81]	6.1 [82]
2024*	8.09 [83]	17.75 [84]	1.58 [85]	6.2 [86]

Figure 1.2

3.3 Discussion of Financial Performance

The analysis of financial ratios highlights several key trends in Alfamart's performance during the observation period (2020–2024).

Profitability Analysis (ROA and ROE): Alfamart demonstrated strong and increasing profitability, evidenced by a steady increase in both ROA and ROE from 2020 to 2022. A significant peak was reached in 2023, where ROA surged to 9.93% and ROE reached 21.38%. This indicates exceptional efficiency in utilizing both total assets and shareholder equity to generate profit. The remarkable performance in 2023 can be attributed to effective cost management and favorable market conditions post-pandemic. Although both ratios saw a moderate decline in 2024, they remained at a high and healthy level (ROA 8.09%, ROE 17.75%) , suggesting sustained operational effectiveness despite potential increases in capital expenditure (reflected in higher Total Assets) or external inflationary pressures.

Liquidity and Solvency Analysis (Current Ratio and Capital Structure): The Current Ratio remained stable and above 1.45 throughout the period , peaking at 1.63 in 2023. This consistency confirms Alfamart's strong ability to meet its short-term obligations using its current assets, which is crucial for the high-turnover retail sector. Regarding solvency, the continuous growth in Equity, rising from IDR 12.5 Trillion in 2020 to IDR 17.69 Trillion in 2024, suggests a strengthening of the company's capital base. This growing internal funding contributes to a balanced capital structure and indicates a manageable reliance on external debt, providing long-term financial stability.

Activity Analysis (Inventory Turnover): The Inventory Turnover ratio showed a consistent upward trend, increasing from 5.5 in 2020 to 6.2 in 2024. This trend demonstrates improving efficiency in inventory management; the company is selling and replacing its stock faster each year. This effective inventory control is a critical factor for retail operational success, minimizing holding costs and maximizing sales velocity.

4. CONCLUSION

The analysis demonstrates that PT Sumber Alfaria Trijaya Tbk maintained strong financial performance during 2020–2024. Profitability improved steadily with high ROA and ROE, supported by efficient operational management and resilient revenue growth. Liquidity ratios remained stable, while solvency ratios indicated manageable debt levels. Activity ratios revealed effective inventory control, an essential factor in retail operational success. Overall, Alfamart exhibited robust financial resilience despite external economic pressures.

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CHAPTER 8
Assessing the Financial Performance and Strategic Integration of GoTo Group Post-Merger (2021–2025)

Fatih Muzaki IMRON
IPMI Institute, Indonesia
fatih.imron@ipmi.ac.id
Orcid: 0009-0005-6782-0964

Wiwiek Mardawiyah DARYANTO
IPMI Institute, Indonesia
wiwiek.daryanto@ipmi.ac.id
Orcid: 0000-0003-3582-5857

Helda Valentina SORONGAN
IPMI Institute, Indonesia
helda.sorongan@ipmi.ac.id
Orcid: 0009-0004-8481-2379

ABSTRACT

This study evaluates the financial performance and strategic integration of GoTo Group—Indonesia's largest digital ecosystem formed through the 2021 merger of Gojek and Tokopedia—over the period 2021 to 2025. The research aims to assess the company's post-merger financial recovery, efficiency, and long-term sustainability using key financial ratios such as profitability (ROA, ROE, NPM), liquidity (Current Ratio), and leverage (Debt-to-Equity Ratio). The study employs quantitative analysis based on audited annual reports (2021–2024) and 2025 financial projections obtained from GoTo's investor relations and IDX disclosures.

Findings reveal a clear year-to-year recovery trajectory marked by substantial fluctuations. GoTo experienced deep financial strain in the early post-merger phase (2021–2022), reflected in severe negative profitability and constrained liquidity driven by integration expenses and macroeconomic pressures. In 2023, the company reached an inflection point where revenue expanded and net losses were nearly halved, indicating early synergy realization and cost optimization. The strongest improvement occurred in 2024, when revenue rose by approximately 30% and net losses contracted by 94%, supported by aggressive operational streamlining and ecosystem monetization. Projections for 2025 indicate that GoTo is approaching sustained positive EBITDA, improved liquidity, stable leverage, and near break-even net income—signaling the transition from loss reduction to sustainable profitability.

The research concludes that GoTo's transformation journey illustrates how strategic consolidation within the digital economy can drive financial resilience and operational efficiency, offering insights for corporate leaders, investors, and policymakers navigating post-merger challenges across emerging markets.

Keywords: Financial Performance, GoTo Group, Post-Merger Integration, Profitability Ratios, Digital Economy.

1. Introduction

The rapid rise of digital platforms has reshaped Southeast Asia's economic landscape, with Indonesia positioned at the center of this transformation. The merger of Gojek and Tokopedia in 2021 officially formed GoTo Group, creating Indonesia's largest digital ecosystem integrating on-demand services, e-commerce, and financial technology (GoTo Annual Report, 2021).

The merger was driven by strategic intentions to create synergies, optimize cost structures, and accelerate profitability. However, like many large-scale technology mergers, the company faced major integration challenges involving operational alignment, corporate restructuring, and post-pandemic economic recovery pressures (McKinsey, 2019).

This research evaluates GoTo's financial performance during 2021–2025 to understand how strategic integration affected its financial sustainability (GoTo Annual Report, 2022).

2. Literature Review

Financial performance is a critical indicator of organizational health, commonly measured through profitability, liquidity, and leverage ratios (Brigham & Houston, 2019). Profitability ratios such as Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM) measure the company's ability to generate profit relative to assets, equity, and sales, respectively. Liquidity ratios (e.g., Current Ratio) assess short-term financial stability, while leverage ratios like the Debt-to-Equity Ratio (DER) measure financial risk and capital structure (Gitman & Zutter, 2020).

Mergers and acquisitions (M&A) can enhance efficiency through economies of scale but often introduce transitional inefficiencies (Cartwright & Schoenberg, 2006). Post-merger integration processes—especially in digital companies—require balancing rapid growth and financial discipline (Hitt et al., 2020). This study applies these frameworks to GoTo Group's post-merger period to evaluate its financial evolution and the effectiveness of its integration strategy.

3. Methodology

This research employs a quantitative descriptive approach, analyzing secondary data obtained from GoTo Group's audited financial statements published on the Indonesia Stock Exchange (IDX, 2021-2024) and financial disclosures issued by GoTo Investor Relations (GoTo IR Report, 2024).

The analysis covers audited data for 2021-2024 and a 2025 projection based on historical growth trends and company guidance. The study uses the following standard financial ratios (Brigham & Houston, 2019):

- ROA = Net Income / Total Assets
- ROE = Net Income / Shareholders' Equit
- NPM = Net Income / Revenue
- CR = Current Assets / Current Liabilities
- DER = Total Liabilities / Total Equity

The DuPont model (Gitman & Zutter, 2020) is applied to decompose ROE into margin, efficiency, and leverage components to deepen understanding of performance drivers.

4. Results and Discussion

4.1 Financial Performance Summary (2021–2025)

Year	Revenue (Rp Trillion)	Net Profit/Loss (Rp Trillion)	ROA (%)	ROE (%)	NPM (%)	CR	DER
2021	17.0	-22.3	-17.4	-26.5	-131.2	0.88	0.20
2022	18.5	-20.3	-11.7	-18.2	-109.7	0.95	0.18
2023	21.0	-11.3	-6.4	-9.1	-53.8	1.02	0.17
2024	27.3	-0.7	-0.3	-0.5	-2.6	1.08	0.16
2025*	30.0*	+0.5*	+0.2*	+0.3*	+1.6*	1.10*	0.15*

Table 1.
*2025 projected based on GoTo's 2024 guidance.

As shown in Table 1, GoTo's financial performance demonstrates a clear year-to-year recovery pattern. Revenue steadily increased from Rp17.0 trillion in 2021 to a projected Rp30.0 trillion in 2025, while net losses declined sharply—particularly between 2023 and 2024, when losses contracted by 94%. Profitability ratios (ROA, ROE, NPM) follow similar improvement trends, moving from deeply negative values in 2021–2022 toward near break-even in 2024 and projected positive territory in 2025. Liquidity also improved, as indicated by an increase in the Current Ratio (CR) from 0.88 to 1.08, while leverage decreased gradually, reflecting a more stable capital structure.

4.2 Trend of GoTo's Revenue and Net Profit/Loss (2021–2025)

Year	Revenue (Rp Trillion)	Net Profit/Loss (Rp Trillion)
2021	17.0	-22.3
2022	18.5	-20.3
2023	21.0	-11.3
2024	27.3	-0.7

Table 2.

The trend illustrates a strong upward curve in revenue contrasted by a sharply narrowing loss line, converging toward profitability in 2025. This visually reinforces the company's transition from heavy post-merger losses to operational consolidation and financial stabilization.

4.3 Analysis and Discussion

GoTo's financial improvement can be interpreted through several dimensions:

1. Profitability Recovery and DuPont Analysis

The DuPont decomposition shows that ROE improvement from –26.5% (2021) to –0.5% (2024) was driven primarily by margin recovery rather than asset turnover, indicating the success of cost reduction initiatives such as workforce restructuring and cloud optimization (GoTo IR, 2024).

2. Liquidity Strengthening

The increase in the Current Ratio from 0.88 (2021) to 1.08 (2024) signals improved working capital efficiency. This improvement aligns with typical post-merger integration cycles where companies gradually stabilize short-term obligations (Cartwright & Schoenberg, 2006).

3. Leverage Stability

The declining Debt-to-Equity Ratio suggests a conservative financing approach. Rather than leveraging external debt, GoTo prioritized internal restructuring and asset optimization, a strategy aligned with emerging market tech firms seeking long-term sustainability (Hitt et al., 2020).

4. **Strategic Integration Impact**

The steep improvement from 2023 to 2024 aligns with synergy realization, particularly:

- consolidation of mobility and e-commerce logistics,
- GoPay monetization improvement,
- ecosystem cross-sell efficiency.

5. Conclusion and Recommendations

5.1 Conclusion

The analysis demonstrates that GoTo has shifted from severe post-merger financial pressure toward structural recovery between 2023–2025. The results confirm that disciplined cost optimization, synergy execution, and ecosystem monetization significantly increased financial health and positioned the company toward sustainable profitability.

5.2 Recommendation

- **For management:** deepen cross-platform monetization and maintain cautious operating expenditure control.
- **For investors:** consider long-term value creation potential typical of digital ecosystem firms.
- **For policymakers:** support digital integration through data governance and financial inclusion policies.

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CHAPTER 9
Financial Healthiness Analysis and Evaluation of Buku IV Private and State-Owned Banks Before and During the Covid-19 Pandemic

Haffian NURRASYİD
Institut IPMI, Jakarta, Indonesia
haffian.nurrasyid@ipmi.ac.id
Orcid: 0009-0003-9543-3342

Wiwiek Mardawiyah DARYANTO
Institut IPMI, Jakarta, Indonesia
wiwiek.daryanto@ipmi.ac.id
Orcid: 0000-0003-3582-5587

ABSTRACT

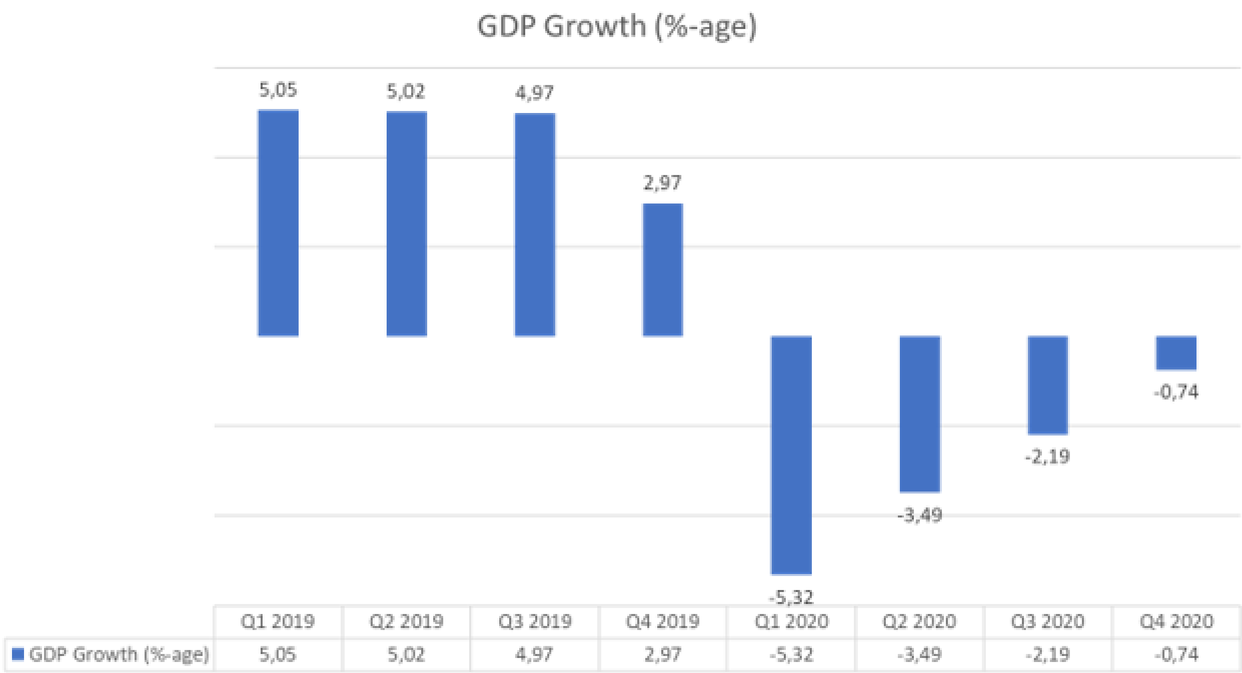
The Covid-19 pandemic, first reported in Wuhan, China in December 2019, significantly disrupted global economic activities, including Indonesia's economy. By the end of the first quarter of 2020, Indonesia's GDP growth declined from 4.9% to 2.9% (quarter-on-quarter), while the banking sector experienced a sharp drop in stock prices of 29.12%. This study aims to analyze and evaluate the financial performance of BUKU IV banks in Indonesia three years before and during the Covid-19 pandemic. Six major banks were examined: PT Bank Central Asia (BBCA), PT Bank Mandiri (BMRI), PT Bank Rakyat Indonesia (BBRI), PT Bank Negara Indonesia (BBNI), PT CIMB Niaga (BNGA), and PT Bank Danamon Indonesia (BDMN). Quarterly audited financial reports from 2017 to 2023 were analyzed using five financial ratios under the Risk-Based Bank Rating (RBBR) framework, as regulated by Bank Indonesia (PBI No.13/1/PBI/2011). Statistical tests including t-test, Wilcoxon, and Mann-Whitney U were applied to assess significant differences in financial performance and health scores between private and state-owned banks. Findings indicate significant changes in NPL, LDR, ROA, and NIM ratios before and during the pandemic, while CAR and overall health scores between private and state-owned banks showed no significant differences.
Keywords: RBBR, Banks Health, Covid 19, T-Test, Wilcoxon-test, U-Test

1. CHAPTER – INTRODUCTION

1.1 Phenomena/Research Background

The outbreak of COVID-19, officially declared a global pandemic by the World Health Organization (WHO) in March 2020, generated profound disruptions across economic, social, and financial systems worldwide. In Indonesia, government interventions such as large-scale social restrictions (PSBB) were implemented to mitigate transmission. While necessary from a public health perspective, these measures precipitated a contraction in economic activity, reflected in declining GDP growth, rising unemployment, and reduced corporate output.

The banking sector, functioning as a critical intermediary in the economy, was indirectly affected by these dynamics. Constrained business activity and weakened household consumption contributed to increasing non-performing loans (NPLs), thereby pressuring banks' financial stability. In response, institutions were required to establish allowances for impairment losses (CKPN), further eroding profitability. Investor confidence also deteriorated, the record for the year 2020 was -2 percent sequentially (Badan Pusat Statistik, 2020).



Source: Badan Pusat Statistik, 2020

Figure 1.1: Indonesia GDP Growth 2019 - 2020

Recognizing the systemic importance of the banking industry, the government introduced stimulus measures to safeguard financial intermediation and maintain economic resilience. This study focuses on BUKU IV banks—Indonesia's largest banking institutions—whose performance is pivotal to national financial stability. By employing the Risk-Based Bank Rating (RBBR) framework, the research evaluates five key financial ratios: Non-Performing Loan (NPL), Loan-to-Deposit Ratio (LDR), Return on Assets (ROA), Net Interest Margin (NIM), and Capital Adequacy Ratio (CAR).

1.2 Problem Identification

The central problem addressed in this study is whether the COVID-19 pandemic significantly altered the financial performance and health of BUKU IV banks. Specifically, the research seeks to compare conditions before and during the pandemic (2017–Q1 2023) using financial ratio analysis and inferential statistical methods. The findings are expected to provide insights into the long-term viability of the Indonesian banking sector under crisis conditions.

1.3 Research Question

Based on the phenomena/research background analysis and problem identification above, this research would like to answer some problems that arise :

- How did NPL, LDR, ROA, NIM, and CAR evolve before and during the COVID-19 pandemic?
- To what extent did overall bank health, as measured by RBBR, differ across these periods?
- Are there any differences in financial resilience between private and state-owned BUKU IV banks?

1.4 Research Objective

The objective of the research is to understand the impact and relationship factors as follows:

- To analyze BUKU IV banks' performance using RBBR ratios before and during the COVID-19 pandemic.
- To measure changes in NPL, LDR, ROA, NIM, and CAR across the two periods.
- To evaluate overall bank health through aggregated average scores.
- To compare the financial condition and resilience of private versus state-owned banks.

2. CHAPTER – LITERATURE REVIEW

2.1 Covid-19 Pandemic

Covid-19 is an infectious respiratory disease caused by the SARS-CoV-2 virus, classified as a novel coronavirus by the World Health Organization (WHO). Coronaviruses are RNA-based viruses, typically zoonotic, and prior to Covid-19, six strains were known to infect humans. The outbreak was declared a global pandemic by WHO on March 13, 2020, following widespread transmission across countries, severe health impacts, and significant disruption to economic and business activities worldwide.

2.2 Banks

According to the Republic of Indonesia Act No. 10 of 1998, a bank is a financial institution that mobilizes funds from the public in the form of deposits and redistributes them as credit or other financial instruments to improve economic welfare. Banks in Indonesia are categorized by core capital under Bank Indonesia Regulation No. 14/26/PBI/2012 into four groups (BUKU I–IV), with BUKU IV representing banks with core capital exceeding IDR 30 trillion. Banks perform three primary functions:

- Agent of Trust – maintaining public confidence in financial transactions.
- Agent of Development – supporting economic growth through financial intermediation.
- Agent of Service – providing financial services such as deposits, loans, and guarantees.

2.3 Bank Health

Bank health refers to a bank's ability to operate effectively and meet its obligations in compliance with regulatory standards. It is assessed through quantitative and qualitative measures, including capital adequacy, asset quality, management, liquidity, and sensitivity to market risk. Composite ratings range from PK-1 (Very Healthy) to PK-5 (Unhealthy), as stipulated by Bank Indonesia regulations.

2.4 Risk-Based Bank Rating (RBBR)

The Risk-Based Bank Rating (RBBR) framework, mandated by Bank Indonesia Regulation No. 13/1/PBI/2011, evaluates bank soundness based on risk profile, earnings, and capital adequacy. This study focuses on five key ratios:

- Non-Performing Loan (NPL) – measures credit risk; lower values indicate better asset quality.
- Loan-to-Deposit Ratio (LDR) – assesses liquidity risk; balanced ratios reflect optimal liquidity.
- Return on Assets (ROA) – indicates profitability relative to total assets.
- Net Interest Margin (NIM) – evaluates efficiency in generating interest income.
- Capital Adequacy Ratio (CAR) – measures a bank's capacity to absorb losses; higher ratios indicate stronger capital positions.

2.5 Research Approach

This research adopts a quantitative approach, analysing financial ratios derived from audited quarterly reports to evaluate bank performance before and during the Covid-19 pandemic. Descriptive statistics summarize data through measures such as mean and standard deviation, while inferential statistics test hypotheses using parametric (t-test) and non-parametric (Wilcoxon, Mann-Whitney U) methods to identify significant differences in financial performance across periods and bank types.

2.6 Research Framework

The framework compares financial performance indicators and overall health scores of BUKU IV banks before and during the pandemic, applying statistical tests to validate differences.

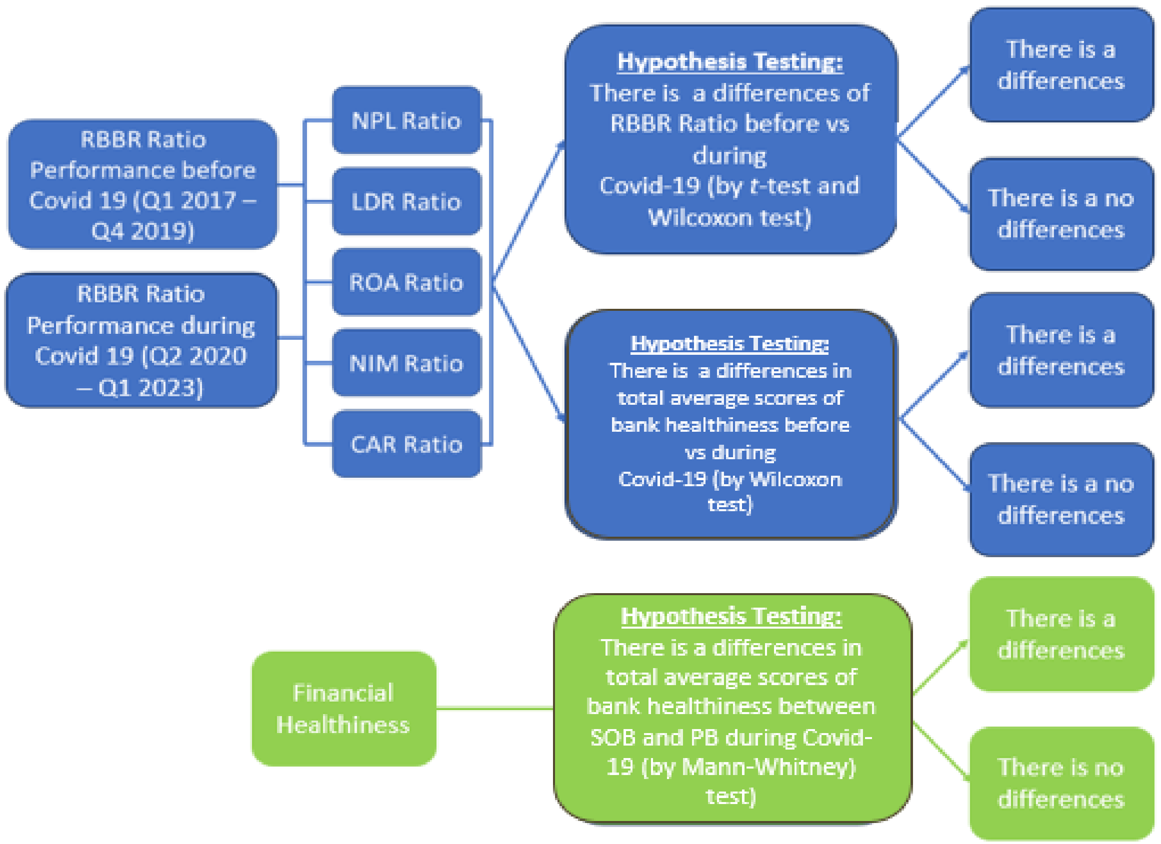


Figure 2.1: Research Model

2.7 Hypotheses

- H_1 : There is a difference in NPL analysis between before and during Covid-19 Pandemic
- H_2 : There is a difference in LDR analysis between before and during Covid-19 Pandemic
- H_3 : There is a difference in ROA analysis between before and during Covid-19 Pandemic
- H_4 : There is a difference in NIM analysis between before and during Covid-19 Pandemic

- H_5 : There is a difference in CAR analysis between before and during Covid-19 Pandemic
- H_6 : There is a difference in Total Average Score of the Bank Health Level between before and during Covid-19 Pandemic
- H_7 : There is a difference in Total Average Score of the Bank Health Level between State Owned Bank and Private Bank during Covid-19 Pandemic

3. CHAPTER – RESEARCH METHODOLOGY

3.1 Methodology

- **Data Collection**: Secondary data from six BUKU IV banks were obtained from official websites and the Indonesia Stock Exchange. Quarterly financial reports from Q1 2017 to Q1 2023 were used to calculate five financial ratios (NPL, LDR, ROA, NIM, CAR) and an overall health score based on Bank Indonesia Regulation No.13/1/PBI/2011. Total data analyzed: 720 observations.
- **Normality Test**: Data distribution was checked using Skewness, Kurtosis, and the Kolmogorov-Smirnov test ($\alpha = 0.05$) via SPSS.
  - If $p > 0.05$ → data is normally distributed (parametric tests).
  - If $p < 0.05$ → data is not normally distributed (non-parametric tests).
- **Statistical Analysis**:
  - **Paired t-test**: Compare financial ratios before vs. during Covid-19 for the same banks.
  - **Independent t-test**: Compare health scores between groups (Private vs. State-Owned).
  - **Wilcoxon Test**: Used when compare between period (Before and During Covid-19).
  - **Mann-Whitney U Test**: Compare health scores between Private and State-Owned banks during Covid-19.

4. CHAPTER – FINDINGS, ANALYSIS, AND DISCUSSION

4.1 Financial Ratio Results

The analysis of six BUKU IV banks over the period Q1 2017–Q1 2023 produced the following average ratios:

Statistic	NPL	LDR	ROA	NIM	CAR
Mean	2.8238%	85.9675%	2.5567%	5.6109%	21.3115%
Median	2.9400%	87.4650%	2.5850%	5.3850%	21.0150%
Mode	2.94%	85.20%	2.72%	4.67%	18.90%
Minimum	1.34%	60.50%	0.54%	4.32%	16.07%
Maximum	4.25%	99.14%	4.20%	8.21%	28.05%
Standard Deviation	0.72687%	8.57781%	0.79089%	0.94826%	2.5455%
Observation	150	150	150	150	150

Figure 4.1: Bank Performance Before and During Covid-19

- **Non-Performing Loan (NPL)**: 2.82%, indicating a healthy credit risk profile.
- **Loan-to-Deposit Ratio (LDR)**: 85.97%, reflecting adequate liquidity.
- **Return on Assets (ROA)**: 2.56%, signifying strong profitability.
- **Net Interest Margin (NIM)**: 5.61%, demonstrating efficient interest income generation.
- **Capital Adequacy Ratio (CAR)**: 21.31%, confirming robust capital strength.

4.2 Normality Assessment

Test No.	Dependant Variables	Z-Value of Before Covid-19 (± 2,0)		Z-Value of After Covid-19 (± 2,0)		P Value of Kolmogorov-Smirnov (α = 0.05)		Conclusion
		Skewness	Kurtosis	Skewness	Kurtosis	Before	After	
1	NPL	-.076	-1.104	-.314	-.406	0.200	0.056	p > 0.05 for both
2	LDR	-1.072	.436	-1.277	.611	0.000	0.000	p < 0.05 for both
3	CAR	-.260	-1.102	.415	-1.124	0.051	0.000	p < 0.05 for After
4	ROA	-.254	-.770	-.113	-.302	0.072	0.098	p > 0.05 for both
5	NIM	0.896	-.078	1.790	2.596	0.000	0.000	p < 0.05 for both
6	TWS	0.927	9.333	-0.881	-0.233	0.000	0.000	p < 0.05 for both

Figure 4.2: Normality Data Testing (Via SPSS)

Normality tests revealed that NPL and ROA were normally distributed, allowing parametric testing. Conversely, LDR, NIM, CAR, and Total Average Score (TAS) exhibited non-normal distributions, necessitating non-parametric methods.

4.3 Hypothesis Testing

Paired *t*-Test Samples

- Non-Performing Loan (NPL) :
  - *t*-Test : -4.651
  - *p*-value : 0.000
  - r-value : .566

Hypothesis of H1 is accepted: there is a difference in NPL ratio before and during Covid-19 Pandemic

- Return On Assets (ROA) :
  - *t*-Test : 7.259
  - *p*-value : 0.000
  - r-value : .569

Hypothesis of H3 is accepted: there is a difference in ROA ratio before and during Covid-19 Pandemic

Wilcoxon Signed-Ranked test

- Loan-to-Deposit Ratio (LDR):
  - z-value : -7.287
  - *p*-value : 0.000

Hypothesis of H2 is accepted: there is a difference in LDR ratio before and during Covid-19 Pandemic.

- Net Interest Margin (NIM):
  - z-value : -6.441
  - *p*-value : 0.000

Hypothesis of H4 is accepted: there is a difference in NIM ratio before and during Covid-19 Pandemic.

- Capital Adequacy Ratio (CAR):
  - z-value : 1.305
  - *p*-value : 0.192

Hypothesis of H5 is rejected: there is no difference in CAR ratio before and during Covid-19 Pandemic.

- Total Average Scores (TAS):
  - z-value : -.884
  - *p*-value : 0.377

Hypothesis of H6 is rejected: there is no difference in TAS before and during Covid-19 Pandemic.

Mann-Whitney U-Test

- Financial Healthiness Level between State-Owned Banks and Private Banks

Period	PB	SOB
Q1 2020	68	66
Q2 2020	64	62
Q3 2020	62	65
Q4 2020	63	64
Q1 2021	66	63
Q2 2021	65	63
Q3 2021	65	68
Q4 2021	67	65
Q1 2022	69	67
Q2 2022	69	67
Q3 2022	68	66
Q4 2022	70	70
Q1 2023	70	68
Average	**66,61538**	**65,6923**

  - z-value : -.955
  - *p*-value : 0.340

Hypothesis of H7 is rejected: there is no difference in Financial Healthiness level of PB and SOB during Covid-19 Pandemic.

Figure 4.3: Hypothesis Testing (Via SPSS)

- Significant differences were observed in NPL, LDR, ROA, and NIM between pre-pandemic and pandemic periods.
- CAR and TAS showed no statistically significant changes.

- Mann-Whitney U tests indicated no significant difference in overall health scores between private and state-owned banks during the pandemic; both groups maintained a "Healthy" rating but Private Banks Health is slightly better than State-Owned Banks.

4.4 Bank Health Analysis

Bank Performance After Covid-19													
Banks	Period	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019
BBCA	TWS	24	25	25	24	24	24	24	24	24	24	24	24
	Rating	PK-2	PK-1	PK-1	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2
	Status	Healthy	Pretty Healthy	Pretty Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy
BDMN	TWS	22	22	22	22	22	22	22	22	22	22	22	22
	Rating	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2
	Status	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy
BNGA	TWS	17	22	22	22	22	22	22	22	22	22	22	22
	Rating	PK-3	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2
	Status	Quite Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy
BBRI	TWS	22	22	22	22	22	22	22	22	22	22	22	22
	Rating	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2
	Status	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy
BMRI	TWS	22	22	22	22	22	22	22	22	22	22	22	22
	Rating	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2
	Status	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy
BBNI	TWS	22	22	22	22	22	22	22	23	23	23	23	23
	Rating	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2
	Status	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy

Bank Performance After Covid-19														
Banks	Period	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
BBCA	TWS	24	24	25	25	25	24	24	24	24	24	24	25	25
	Rating	PK-2	PK-2	PK-1	PK-1	PK-1	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-1	PK-1
	Status	Healthy	Healthy	Pretty Healthy	Pretty Healthy	Pretty Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Pretty Healthy	Pretty Healthy
BDMN	TWS	22	18	18	19	18	18	18	19	22	22	22	23	22
	Rating	PK-2	PK-3	PK-3	PK-3	PK-3	PK-3	PK-3	PK-3	PK-2	PK-2	PK-2	PK-2	PK-2
	Status	Healthy	Quite Healthy	Quite Healthy	Quite Healthy	Quite Healthy	Quite Healthy	Quite Healthy	Quite Healthy	Healthy	Healthy	Healthy	Healthy	Healthy
BNGA	TWS	22	22	19	19	23	23	23	24	23	23	22	22	23
	Rating	PK-2	PK-2	PK-3	PK-3	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2
	Status	Healthy	Healthy	Quite Healthy	Quite Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy
BBRI	TWS	22	22	23	23	22	23	23	23	22	23	22	23	23
	Rating	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2
	Status	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy
BMRI	TWS	22	22	23	23	23	22	23	23	23	22	22	24	23
	Rating	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2	PK-2
	Status	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy	Healthy
BBNI	TWS	22	18	19	18	18	18	22	19	22	22	22	23	22
	Rating	PK-2	PK-3	PK-3	PK-3	PK-3	PK-3	PK-2	PK-3	PK-2	PK-2	PK-2	PK-2	PK-2
	Status	Healthy	Quite Healthy	Quite Healthy	Quite Healthy	Quite Healthy	Quite Healthy	Healthy	Quite Healthy	Healthy	Healthy	Healthy	Healthy	Healthy

Figure 4.4:
Bank's Healthiness Status between Before and During Covid-19 Pandemic

- **BBCA**: Maintained PK-1/PK-2 ratings; experienced declines in ROA and NIM but improved CAR.
- **BDMN and BBNI**: Health ratings declined to "Quite Healthy" during the pandemic but recovered in 2022.
- **BNGA**: Stable health rating; improved CAR despite lower NIM.
- **BBRI and BMRI**: Sustained "Healthy" status with minor ratio fluctuations.
- **Group Comparison**: Private banks exhibited slightly higher TAS than state-owned banks, though differences were not statistically significant.

4.5 Discussion

The Covid-19 pandemic adversely affected profitability (ROA, NIM) and credit risk (NPL), while liquidity improved due to increased deposits, as reflected in lower LDR. Capital adequacy remained strong across all banks, ensuring resilience. Despite ratio fluctuations, all banks retained a "Healthy" classification, underscoring the sector's stability during the crisis.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study achieved its objectives by analysing BUKU IV banks' performance before and during the Covid-19 pandemic using Risk-Based Bank Rating (RBBR) indicators.

Key Findings:

- **Overall Health:** BUKU IV banks maintained strong financial health during the pandemic, with effective risk management, adequate liquidity, and solid capital.
- **Financial Ratios:**
  - **NPL:** Increased significantly during the pandemic ($p < 0.05$), indicating higher credit risk.
  - **LDR:** Decreased significantly ($p < 0.05$), showing improved liquidity.
  - **ROA & NIM:** Both declined significantly ($p < 0.05$), reflecting reduced profitability.
  - **CAR:** No significant change ($p > 0.05$), confirming stable capital adequacy.
- **Bank Health Scores (TAS):** No significant difference before vs. during the pandemic ($p > 0.05$). All banks remained in the "Healthy" category.
- **Private vs. State-Owned Banks:** No significant difference in health scores; both groups demonstrated resilience.

Summary: Covid-19 impacted profitability and credit risk but did not compromise overall bank health. Most banks recovered by early 2022, with private banks slightly outperforming state-owned banks.

Research Limitations

- Analysis was limited to five ratios and six banks using secondary data.
- Excluded qualitative factors such as marketing strategy, customer behavior, and external market dynamics.
- Small sample size; future studies should include more banks, longer periods, and additional variables.

Implications

- **Theoretical:** Confirms the applicability of RBBR and statistical tests (t-test, Wilcoxon, Mann-Whitney) for assessing bank health.
- **Managerial:** Banks must strengthen risk management and contingency planning to mitigate future global disruptions. Focus on improving cash flow and profitability during crises.

Recommendations

- Prepare adaptive strategies for future crises, including portfolio diversification and digital transformation.
- Conduct qualitative research on strategic responses to pandemics.
- Explore why state-owned banks underperformed compared to private banks.
- Investigate the impact of other RBBR ratios (e.g., BOPO, GCG) and marketing strategies during crises.

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CHAPTER 10
The Real and Imagination in the Literature of Agim Deva

PhD Candidate: Leonora Bruçaj
"Fehmi Agani" University of Gjakova
Faculty of Philology
Department of Albanian Language and Literature
Orcid:

ABSTRACT

This paper explores the intertwining of the real and imagination in the literary works of children's writer Agim Deva, one of the most prominent authors of Albanian literature for young readers. By analyzing his poetry and prose, this research paper highlights how imagination turns into an educational and aesthetic tool, which enriches the experience of the young reader. In Deva's work, real elements of everyday life, such as health care, parental love, or common rituals, are intertwined with imaginary worlds, vivid characters, and metaphors that speak in the language of children. Through play, humor, and a gentle poetic style, the author manages to convey educational messages without imposition, turning practical advice into emotional and aesthetic experiences. In this way, his work seems as a literary garden where the real and imagination coexist, serving children not only as an aesthetic guide, but also as a teacher of life values.

Through this intertwining, he succeeds in creating poetry that surpasses the boundaries of practical education, giving it mythical and universal dimensions. The paper also highlights the use of metaphor, humor, and irony as tools that build a dynamic literature, which maintains the balance between the aesthetic and educational function.

Keywords: Agim Deva, Children's Literature, The Real, Imagination, Metaphor, Education

The real and imagination in the literature of Agim Deva

Imagination in children's literature is like a living garden, where each idea is a seed carefully planted, waiting to grow and bloom. Children's literature becomes an infinite space, where imagination takes shape, creating new worlds, fantastic characters and adventures that invite children to explore beyond the boundaries of reality. A children's book is like a magic door that opens toward unknown universes. Each line serves as a key that reveals hidden treasures, bringing the reader new emotions and unseen experiences. Within these universes, children feel free to dream, explore, and create. Imagination gives them the opportunity to discover their own identity and understand the world through the eyes of characters who see life experiences in different ways.

One of the most prominent writers of children's literature, who intertwines imagination with reality, is Agim Deva. He is known for his sensitive poetry, rich in educational messages for children, which simultaneously blends imagination and warm emotion to create a unique approach to literature for younger readers. Imagination is also a bridge that connects the author and young readers which by intertwining with reality, helps children delve deeper into their world, transcending every horizon to understand the message that the author conveys through various characters. Therefore, numerous scholars of Albanian literature contend that Deva, as a writer, aims to achieve the entertaining dimension in children's literature through two factors: play and humor.[1]

His verses are not merely instructions for a healthy routine; they represent a profound educational message, aimed at giving children a sense of responsibility and self-care, while creating a strong emotional connection between the young reader and the various characters. Deva's poetry highlights his ability to construct clear and meaningful scenes through short verses, which speak directly to children and invite them to experience the message not as an obligation, but as a part of parental love that permeates every day of their lives.

By using metaphor, the prominent children's writer Agim Deva transforms his children's literature into a butterfly soaring high into the sky of possibilities. His literature is a free spirit that recognizes no boundaries, providing children the opportunity to soar over unknown landscapes, savoring every moment of their adventure. In this flight, imagination is the engine that empowers and enables them to grasp their dreams, challenge reality, and create alternative realities where everything is possible in their world that knows no bounds.

In his poetry for children, Agim Deva uses his imagination to create a distinctive educational atmosphere, constructing a world where everyday advice is transformed into warm and loving messages. His verses address children, combining a simple and understandable style with deep emotions and gentle symbolism. These elements build a natural connection between the reader and the message of the poem, making it not only a simple piece of advice but also a way to deepen the parent-child bond.

Thus, the author, through imagination, brings life to the characters in his verses, making them speak even though, in reality, they cannot. The same occurs in the poem "Kitrra" (Squirrel), where the author makes the mother squirrel speak to her young ones, advising them to brush their teeth with forest leaves after every meal.

Mother squirrel, without delay,
Whispers to her young ones, hey,
After meals, your teeth must shine,
Brush three times, every day, just fine.

Forest spring has water clear,

[1] Prof.As. Dr. Astrit Bishqemi - Kumtesë e mbajtur në Prishtinë (Speech held in Prishtina), 6 June 2014, at the scientific roundtable dedicated to the 5th anniversary of the death of Agim Deva

Leaves can help keep teeth in gear,
Don't skip it, said the squirrel mother,
Or germs will fill your mouth, oh brother.[2]

The first line, "Mother squirrel, without delay," places the figure of the mother at the center, symbolizing her care, love, and tireless devotion to her children. Through this line, the prominent poet of children's literature, Agim Deva, conveys the message of a mother who constantly strives to give valuable advice and remain close to her children, without losing her patience or love for them. The character of the squirrel was chosen with special care to create a sense of closeness and delicacy, while "without delay" signifies her unwavering commitment, a devotion that only a mother can have for her young ones.

In the second line, "Whispers to her young ones, hey," the poet weaves in another, little more intimate element of communication, implying that the mother never grows tired of advising her children. The use of the word "whispers" suggests that the advice is given in a gentle, warm, and loving tone, without imposition. This whisper clearly expresses the mother's affectionate approach toward her children, inviting them to grasp the importance of her advice through love rather than strict authority. This tender form of communication reflects Deva's ability to transform the act of education into a heartfelt and natural gesture, using precisely his imagination as a writer to achieve this effect.

The poem continues with the line "After meals, your teeth must shine," where the message becomes clearer - the importance of personal hygiene. Deva, by using such a simple and everyday piece of advice, presents the topic of brushing teeth in a way that does not sound like an order or obligation, but rather like a natural part of a mother's care for her children. This detail seems like a small act, but it carries great symbolism, expressing the idea that the little things in everyday life are important and affect a child's overall well-being.

Whereas, in the last line, "Brush three times, every day, just fine," Deva makes his message more concrete by setting a daily rhythm for this simple but important action. This description makes the poem more concrete and helps children remember the advice more easily, turning it into a good habit. In this way, the poet presents to the reader a form of consistent education through repetition, while also fostering a sense of small responsibility, a lesson in maintaining dental health. The repetition "Brush three times, every day, just fine" not only refers to a specific hygienic recommendation, but also symbolizes an act that cultivates discipline and care.

Thus, in these lines he uses the figure of the mother as a symbol of love and devotion, placing her at the center of a simple yet powerful message about the importance of personal care. By turning tooth brushing, an everyday action, into an act of affection and heartfelt care, Deva succeeds in creating a unique poetic experience that transcends the boundaries of practical advice and enters the world of family experiences.

In this context, through his careful choice of words and gentle style, Deva intertwines the educational element with sensitivity and imagination. He uses the line to create a sense of warmth and security, transforming the act of brushing teeth into a beautiful and meaningful ritual that nurtures the bond between child and parent.

Based on the analysis of the above lines, we can say that Agim Deva used imagination to turn a simple, yet real message into an enjoyable literary and educational experience. By using a gentle style and clear language, he helps the young reader understand and accept the message not only as advice, but as a part of love and everyday care. His message, in essence, is a combination of simplicity and depth, where imagination serves education, becoming a valuable tool for forming healthy habits and building strong family relationships through poetry.

In general, the real and imagination in the literature of children's writer Agim Deva are a creative force that gives life to new worlds, challenges norms and opens countless horizons. A concrete example of a poem

[2] Selected poems for children, poem "KITRRA" (Squirrel), p.39. – Rilindja, 1984

which can be analyzed for the connection between the real and imagination is “Pikniku i rrugës” (Roadside Picnic), a story in which the author, through poetic elements and powerful characters, captures the elements of everyday life by combining them with symbolic moments, charged with imaginary tension, while using a style that unites two parallel worlds – the real and the imagination.

The real and imagination in the portrayal of the mother

In Agim Deva’s poetry, the figure of the mother is illuminated through a deep intertwining of the real and imagination. Deva manages to treat the mother as a figure that simultaneously belongs to everyday life and to an idealized sphere, representing not only the poet’s personal experiences, but also the shared emotions of the readers. This intertwining of the real and imagination emphasizes the values of the mother as an eternal symbol of love and sacrifice. This is also expressed in the lines that are dedicated entirely to the mother:

First kiss – to Mother.
First flower - to Mother.
First drawing – to Mother.
First letter - to Mother.
First secret – to Mother.
For Mother gave birth,
To me in May
And no one else,
Gave me birth but her.[3]

In portraying the mother as a real figure, Deva focuses on the everyday experiences and concrete sacrifices of the mother in his life and in the community. She is depicted as a simple woman who endures hardships and makes sacrifices to raise her children and uphold family values. These real moments are revealed through simple details, such as her care for the household, attention to her children’s needs, and daily work for survival. In this way, Deva’s mother becomes a real figure, a tangible being, who embodies the hardships and beauties of human life.

Through this realistic approach, Deva succeeds in creating a direct connection with the reader. Many Albanians can identify with their own mother in this description of Deva’s mother, feeling compassion and respect for women who, with tireless dedication, keep families and traditions alive. His mother is not merely a poetic figure, but a universal model of the Albanian woman who faces life’s challenges with pride and unconditional love.

While the real reflects the concrete aspects of the mother’s life, Deva’s imagination elevates her figure to a high level of idealization, turning her into a symbol of eternal love and sublime sacrifice. In poetry, she assumes almost mythical proportions, becoming immortalized as a saint or perpetual protector of children and family. In this way, Deva extends the mother’s influence beyond time and physical space, making her ever-present, even when she is no longer alive.

Deva’s imagination often portrays the mother as a divine figure, one who is closely connected to the earth, nature, and eternity. In this context, the mother is more than an individual; she is a permanent and sacred principle that preserves the strong bond between generations and the motherland. This idealizing approach often crosses into the mystical realm, where the mother represents an eternal spirit of memory and love. Thus, in his poems, Agim Deva often presents the mother as the personification of sacrifice. She is a figure who always faces the hardships of life without being tired, for the sake of her family and children. Deva dedicates special moments to the mother’s sacrifices, depicting her as a silent hero who unconsciously

[3] Verses from the poem “Nënës” (To Mother)

gives meaning to the word "love". The mother sacrifices her personal comforts for the happiness of her children and the preservation of family traditions and values. She endures economic and social hardships, becoming a source of hope and strength for all those in need of support, especially her children, which is also reflected in the following lines:

Mommy, give me your hand!
Give it to me too!
Mommy, give me your hand,
For I love you too!
Mother has three children
She loves them all the same,
Each one of them
Asks for her hand by name.[4]

In these lines, the author reflects a deep sense of the difficulty and dilemma that a mother faces. Through this interplay, Deva gives the reader a dual experience, a reminder of the real and concrete life of the mother, as well as an inspiration for the vast dimensions that her love can take through imagination. This approach helps the reader perceive the figure of the mother not only as a beloved person, but also as a symbol that transcends the ordinary dimensions of everyday life, carrying an eternal significance for all people, and especially for her children, as in the following lines:

Mother has three children,
But has only two hands
Whom should she give first
Her golden hand?
She leapt into their embrace[5]

The expression "mother has three children but has only two hands" suggests her limitation and inability to support them all equally at the same time, while "her golden hand" can imply her valuable support, help, or care. This dilemma is often seen as a metaphor for life's struggles and the difficult choices we have to make in inadequate or complicated circumstances. Perhaps the author wants to express that love and care can be spiritually unlimited, but practical support is often limited by physical or material conditions.

Thus, the figure of the mother in Agim Deva's poetry is a rich and complex synthesis of the real and imagination, presenting a woman who is both a simple being, devoted to family, and a symbol of eternal love. Deva introduces the mother not only as a being who exists in this world, but also as an ideal that radiates beyond every boundary of human life. This interplay gives poetic power to the figure of the mother, making her a beloved figure for readers and a profound reflection of the Albanian human and cultural experience.

From what has been discussed so far, we can emphasize that imagination is an essential aspect that gives Agim Deva's literature a distinctive poetic and fantastic feeling. In his works, imagination reflects a world where dreams and visions often interfere with reality. Deva uses symbolism and often creates powerful metaphorical scenes that give the reader a new experience, breaking the boundaries of the real and reinforcing the topic of the inner reflections of his characters.

[4] The poem "Dy duar, tre fëmijë" (Two hands, three children) – Rilindja, 1984
[5] From the same poem

The assessment of Agim Deva highlights his distinctive role and contribution to Albanian children's literature, positioning him as an author who achieved high artistic and qualitative levels in this field, expanding and enriching children's literature from a new and rich perspective for Albanian readers in the late sixties and early seventies. Many scholars and writers emphasize that in children's literature, Agim Deva reached a high standard, standing out for his unique style and rich content. This quality in his works has also been emphasized by critics and readers, noting his ability to create complete worlds, with deep and dynamic characters that children can easily experience and understand, while simultaneously conveying educational messages. Through a simple but poetic language, Deva built a style that naturally resonates with the world of children and creates a close connection between young readers and the topics he explores. For the writer Pandeli Koçi, the life and work of Agim Deva represent a living reflection of an intellectual and creator who dedicated his entire life to Albanian literature and the education of the young generation. Koçi also emphasizes that Deva's literary works for children "reached the highest qualitative values in the northeastern wing of Albanian literature".[6] In this way, Deva not only gave Albanian children's literature qualitative values, but also contributed to its growth as a literature that educates and empowers the young generations.

Thus, his topics and stories provide readers with a new experience, incorporating elements of fantasy and imagination, which are vital for children's creative development. He provides to children a reflection of themselves and their culture through the characters by entering into a wider universe that helps them imagine. In this sense, his contribution is vital for building a literature that expresses Albanian identity and culture in a profound and lasting way for children. He plays with the most beloved characters that children have in their hearts, by incorporating into his poems figures from nature, animals, insects, and more:

Into the meadows goes the little bee.
It lands early on the fresh green leaves
And at midday, when it gets hot
It kisses the flowers with its tiny lips[7]

In these lines, the poet delicately and lovingly describes the life of a little bee, giving it human qualities and a deep devotion to nature. He uses sweet words and warm imagery to create an idyllic and peaceful atmosphere, showing the bee's love and harmony with the nature that surrounds it. Through the word "kisses," the poet expresses bee's care and respect for the flowers, reminding us of the importance of nurturing the relationship between humans and nature, as well as the bee's devotion to giving life to the world around it.

As seen in these lines, the poet uses a combination of the real and imagination. In the real aspect, he describes the behavior of the bee, which goes out into the meadows, lands on the fresh green leaves and gathers nectar from the flowers. This is a common and natural sight of a bee in the real world. At the same time, through imagination, the poet gives the bee human qualities: it "kisses" the flowers with its "tiny lips." This is a poetic imagery that adds a sense of sweetness to the lines, making the scene warmer and more emotional. In this way, the poet creates a special connection between the real and imagination, where the bee symbolizes human dedication and love to nature, while the small details of its behavior make it seem like a loving and lively being in the eyes of the reader.

In some poems, the author, through irony and powerful images, creates a description that confronts the reader with the limits of fantasy in the face of ruthless reality.

[6] Pandeli Koçi - Nderim për shkrimtarin e mirënjohur, Agim Deva (Tribute to the well-known writer, Agim Deva), 2009, p. 19.
[7] Poem "Zonja e livadheve" (The Lady of the Meadows) – published in 1968

I don't believe there is any child
Who could devour the forest
Five thousand kilos of wood chunks
Half a wagon of stone coal[8]

These lines, in the form of a light satire and folk expression, create a contrast between the imaginative power of children and the harsh reality of the physical environment. This idea is reinforced by the fact that the child, a symbol of innocence and boundless fantasy, is confronted with a forest, an unavoidable force which is heavy like stone and wood. The irony in these lines comes through the description of an impossible mission, an almost mythical endeavor, where the child is seen as a hero who challenges nature. This clash between the real and imagination comes in the form of a rhetorical question, which seems to encourage the reader to think about the human limitations and the power of dreams, although it is not realistic for a child to accomplish such a task. However, through this embellished impossibility, the lines imply that, although people may have great desires and dreams, there is a limit that must be acknowledged as part of human nature.

This approach also tells about a restrained social dimension; it can be read as a critique of the demands often placed on young people to face great challenges that are beyond their real capabilities. Thus, the lines imply a request for understanding and a call to accept limitations as a natural part of human life, while at the same time preserving the magic of great dreams and desires.

Or in these lines:

Twenty meters of forest wood
That a horse's back not carry could
Four wagons of dry planks
And shovelfuls of wood chips[9]

In these lines, the focus on the large volumes of the materials – twenty meters of wood, four wagons of planks – and the description of shovelfuls of wood chips, creates a picture that resembles to an epic struggle between humankind and the burdens of nature and the power of the earth. Here too, the irony lies in the fact that these loads are so immense that even the horse, a symbol of strength and endurance, cannot carry them on its back. This image brings a subtle humor and a commentary on the limitations of human beings and animals in the face of challenges that sometimes exceed physical strength. All of this lets us understand that some things in life are beyond the reach of the individual, no matter how strong he is. Beyond the visual appearance, they can also have a figurative meaning, where the fear of a large burden is transformed into a metaphor for the burden of duties and responsibilities in everyday life, where, despite the desire to face everything, there are things that challenge us and make us feel that they overpower us.

The poem ends with these lines:

But one winter, bit by bit
A whole great forest in its belly fit
Doesn't it seem strange to you
How much a stove eats to stay full?[10]

[8] Verses from the poem "Kush e përbin malin" (Who devours the forest)
[9] Verses from the poem "Kush e përbin malin" (Who devours the forest)
[10] Final lines of the poem "Kush e përbin malin" (Who devours the forest)

In this poem, the author skillfully uses imagination and the real, combining them to create a strong effect of irony and the wonder of nature. The imagination comes at the beginning, when the author describes an almost unbelievable situation: a child trying to "devour the forest". This image describes an impossible feat, a fantastic act that defies logic and reality. The mention of "five thousand kilos of wood chunks" and "half a wagon of stone coal" expands this image, making the scale of the challenge so immense that it crosses into the realm of imagination and absurdity. The author here conveys a sense of wonder and a subtle humor, by playing with the power of dreams and imagination.

The real, on the other hand, is embodied at the end of the poem, when winter, slowly and inevitably, "devours" that huge forest through the human need for heating. This is a real process, experienced by many people during the winter, when the heat produced by wood and coal becomes an essential part of survival. This part is heartfelt and familiar, putting the young reader in touch with a simple and ordinary truth of everyday life. This connection between the great imagination and the simple reality reinforces the message of the poem: even the most colossal things end up simplified and included in the cycle of life, being consumed naturally, bit by bit, by human need and by time.

Thus, at the end of the poem, the writer Agim Deva uses an unexpected twist to express, in an ironic and humorous way, the power of nature to transform and "devour" what seems impossible. Winter, calmly and bit by bit, manages to "fit an entire forest in its belly", turning all that mass of wood and coal into heat and longevity through the process of heating. This depiction of giving away a forest to heat the stove creates a powerful image of the relentless consumption of nature, but at the same time a reflection on the constant human need for survival during winter. The final lines, through a rhetorical question, evoke a sense of wonder and a kind of humility before the power of nature and time. A long winter, consuming a bit by bit a whole forest, highlights the cyclical and transformative nature of life. In essence, the poem becomes a reflection on how all things, no matter how big or small, are part of an ongoing process, where even the most colossal things can be "devoured" and ultimately reduced to nothing in a simple and quiet way.

For example, in the poem "Pikniku i rrugës" (Roadside Picnic), Agim Deva uses imagination to create a poetic connection between the road and the mountain, personifying them as two elements that can communicate and cooperate. The road "prepares" to head toward the mountain like a person planning a visit, which gives a vivid emotion to the reader.

One day the road prepared its way
To visit the mountain high and steep
I'll head, it said, up the slope away
Where goats nor sheep can ever creep[11]

Moreover, the road decides to head "up the slope away", choosing a difficult direction, where "goats nor sheep can ever creep". If this were taken as real, then these lines show not only the courage and determination of the road, but also the contrast between the human world and the untouched, wild world of nature. By portraying the road in this way, Deva helps the reader grasp the symbolism of a challenging journey, a motif that often reflects an individual's inner journey in an attempt to overcome ordinary limitations. Here, imagination is not used merely for poetic embellishment, but also to deepen the understanding of the connection between humans and nature, presenting the struggle to achieve something high and seemingly unattainable. Or, as put in the following lines:

Thus the road made up its mind

[11] Poem "Pikniku i rrugës" (Roadside Picnic)

Pressed its clothes till smooth and lined
Stretched itself out, long and wide
Put its asphalt coat on with pride[12]

As can be seen, in these lines the writer Agim Deva interweaves the real and imagination in a distinctive way, using images from everyday life and transforming them through personification and poetic symbolism. To the real belongs the idea of the road and what it represents, an element built by humans, serving to connect different places and making them more accessible. Details such as the “asphalt coat” and the road’s preparation for a “visit” belong to the concrete experience of creating modern roads.

Imagination, on the other hand, is presented in the way the road takes on human qualities: it “decides,” “presses clothes,” “stretches out,” and “puts on” the asphalt, behaving as if it had life and will. This description removes the road from its ordinary physical aspect and transforms it into a being with intention and character. This connection of the road with the living world and its symbolism gives the reader the sense of an inner journey or a human struggle to overcome obstacles.

Thus, this combination of the real and imagination gives to this literary work a deep philosophical and poetic dimension, reminding us that nature and life around us can be seen as something more alive and dynamic than as they seem at first glance. In this way, Deva presents a vision in which reality and imagination interact to give meaning to his literary work for young readers.

“Children’s Writers’ Caravan: Agim Deva’s journey for Albanian education and culture”

In this paper, we cannot overlook one of the most important initiatives of the beginning of the new century, undertaken by the prominent children’s writer, Agim Deva, namely the establishment of the Children’s Writers’ Caravan which was a unique initiative in the field of Albanian children’s literature and an important cultural project that aimed to bring children and young readers closer to books and their favorite authors. Starting in the year 2000, this cultural initiative was further developed with the goal of promoting Albanian literature for children through visits to schools and various centers all over Kosovo. Through this Caravan, writers had the opportunity to communicate directly with children, read their literary works, and encourage young readers to love books and enjoy the magic of literature. The Caravan, led by Agim Deva, helped to shape the literary culture of younger generations, having a profound impact on the development of children’s literature and creation of a new audience of readers. Through this initiative, Agim Deva contributed not only to the promotion of children’s literature but also to fostering a closer bond between authors and young readers, by creating a culture of reading and placing special emphasis on education through literary art. This initiative was one of the first efforts in post-war Kosovo, which aimed to promote the book at a time when the connection between writers and young readers was limited, precisely because of the situation in which the country was. The Caravan not only served to promote children’s literature, but through it, the book and the writer were able to have a profound and direct impact on shaping the mindset of younger generations. Literature and education for children were two key aspects in preserving the Albanian language, tradition, and spirit. Deva, with his clear vision and love for children, saw in this Caravan an opportunity to teach the younger generations the importance of the Albanian language and culture.

Through the Children’s Writers’ Caravan, well-known and talented writers traveled all over the country to schools, villages and towns, going from one place to another to meet Albanian children. During these gatherings, they read poems and stories, held discussions with the children, and encouraged them to read, write, and dream. This initiative brought children’s literature to life, making it tangible, and close to their everyday reality.

[12] From the same poem

The educational and cultural impact of the Caravan was extraordinary. For many children, these gatherings were their first encounters with writers and books that spoke about their emotions and experiences. They felt valued and motivated, seeing reading not as a school task, but as an opportunity to express and expand their inner world. This approach helped create a new generation of readers who grew up with a special love for books and Albanian culture.

The Children's Writers' Caravan was an educational mission but it could also be called patriotic, as it served to preserve and strengthen national sentiment among young people, equipping them with values and knowledge rooted in the Albanian language and tradition. Through the words of the writers, children experienced a stronger connection to their cultural identity and understood that literature can be a force that preserves and cultivates the spirit of a people.

This project, led by Deva, also helped the development of children's literature in the Albanian language, by inspiring writers to create new and enriched literary works. Experiencing firsthand the impact they had on young readers, the writers got motivated to create more books suitable for children, thus enriching Albanian literature and making it more accessible to young readers. For many writers of the time, participation in this Caravan was an important and inspiring experience that influenced their further literary work.

The Children's Writers' Caravan remains one of the most important initiatives in the history of Albanian children's literature, exemplifying Agim Deva's dedication to education and preservation of national values through literature. This Caravan was not merely a journey of writers toward young readers, but a cultural and spiritual journey that left deep impressions on the children of the time, influencing their growth as individuals and as citizens aware of their nation's values.

In conclusion, we can summarize Deva's unique role in Albanian literature through the use of the intertwining of the real and imagination. This method gives the young reader special emotions, making the poem, which contains two worlds, the imaginary and the real, very enjoyable and extremely attractive.

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Editors

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He has been working with NDIM since May 2009.
He has experience of over 28 years in Academics and Corporate World.
He has worked with Onida, LG, Videocon and Conacr.
He is a certified trainer of SPIN Selling from HRG (UK) and Soft Skills from Carlson Learning Company USA.
He is a ICF (US) certified success coach.
He is amongst Top 100 Digital Marketers of India, certified by Adobe.
He authored the book – International Marketing: Text & Cases.

Prof. Dr. Gajendra SHARMA
Professor Ph.D., MBA
Area of Specialization: Sales & Distribution, Digital Marketing
India

Assoc. Prof. Dr. Shagun ARORA

She has been working with NDIM since January 2013.
She has more than 17 years of teaching experience at IMT, ICFAI, Jain TV, NIS- Reliance, Stanford University Programs, and Jammu University.
She has been associated with International trade research, FICCI and with leading think tanks.
She has worked on policies for higher education.
Her research interests are in the areas of international trade, exchange rates and foreign reserves.
She has published over 20 research papers which have been published in renowned international and national journals including ABDC and Scopus.
Google Scholar ID: Yck22CYAAAAJ
Orcid ID: 0000-0002-9342-3496

Assoc. Prof. Dr. Shagun ARORA
Associate Professor Ph.D., MBA
Area of Specialization: Economics & International Finance
India

Leonora Bruçaj- KEKA, Phd Cand. in Albanian Literature

She has completed her Master Degree Studies in the Philological Faculty, in Albanian Literature and Sciences in the Public University Hasan Prishtina in Pristina.
She has also completed her Master Degree in the FAMA College in Pristina, in International Relations and Diplomacy.
She is a Phd Cand, Doctor of Science in Albanian Literature in the Hasan Prishtina University in Pristina.
She has published until now five poetry books.
Some of her creations have been translated in other languages.
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“Brererimë politikash “ (Political Tempest), (prose), still a manuscript.

Creative Profile:

The creative profile of Leonora Bruçaj- KEKA goes far back to the 90’s, since from that time, Leonora Bruçaj- KEKA has been creating and writing poetry with no interruptions, moreover, not only challenging herself only with poetry, but also testing her creative abilities in prose. In her renowned literary creations she embraces many different topics, from the innate love of her land, to many other social questions, facts and situations that have been quite actual, especially at the time when Leonora had begun writing her poetic verses, and afterwards taking care of even more sensitive topics.
The poetry of Leonora Bruçaj- KEKA is quite distinguishable for its outstanding stylistic structure, thanks to the use of a wide range of figurative elements that make her verses profoundly colorful, with a sophisticated tonification of senses that seems like a unique sort of degustation.
Her further artistic and scientific enrichment as a Literature Researcher will go on through other scientific meetings focusing on literature in Kosovo, Albania, Montenegro, North Macedonia and Germany, where she has been honored with special certificates for her valuable contribute in the wider field of Literature, and in Albanian Literature as well.

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viii. The United Nations Institute FOr Training and Research Program of Correspondence Instruction in Peacekeeping Operations - CERTIFICATE OF COMPLETION - Logistical Support to United Nations Peacekeeping Operations.

Other Major Titles:

- Member of the Kosova Writer’s Association.
- Member of the Global Union of Albanian Poets.

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