HOLISTIC WORKPLACE DYNAMICS: EXPLORING OCCUPATIONAL SAFETY, EMPLOYEE PERFORMANCE, MENTAL HEALTH, CONSUMER BEHAVIOR, BRAND IMAGE, COMPETITIVE ADVANTAGE, LEADERSHIP, AND CULTURAL INFLUENCE

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Holistic Workplace Dynamics: Exploring Occupational Safety, Employee Performance, Mental Health, Consumer Behavior, Brand Image, Competitive Advantage, Leadership, and Cultural Influence

Editors

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PREFACE

In an era defined by rapid change and intense competition, the modern workplace has become a dynamic and multifaceted environment. To thrive in such an environment, organizations must adopt a holistic approach that considers not only their immediate business goals but also the broader array of factors that influence their success. This book, "Holistic Workplace Dynamics: Exploring Occupational Safety, Employee Performance, Mental Health, Consumer Behavior, Brand Image, Competitive Advantage, Leadership, and Cultural Influence," is a comprehensive guide designed to provide readers with an in-depth understanding of these critical elements.

The importance of Occupational Safety and Health (OHS) cannot be overstated. Ensuring a safe and healthy work environment is the foundation upon which employee performance and organizational success are built. By prioritizing OHS, companies not only protect their most valuable assets—their employees—but also enhance productivity and morale.

Employee performance is another pillar of organizational success. This book delves into the myriad factors that influence performance, from individual mental health to team dynamics and leadership styles. Understanding these factors allows organizations to create conditions that foster high performance and job satisfaction.

Mental health, an often overlooked aspect of workplace dynamics, is given the attention it deserves in these pages. The well-being of employees is crucial not only for their own health but also for the overall health of the organization. By addressing mental health proactively, companies can mitigate stress, reduce absenteeism, and cultivate a supportive and resilient workforce.

In addition to internal dynamics, this book explores the external factors that impact organizational success. Consumer behavior and brand image are critical in today's marketplace, where perception can be as important as reality. By understanding and influencing consumer behavior, organizations can build strong, positive brand images that lead to competitive advantages.

Leadership and cultural influence are also examined in detail. Effective leadership is essential for guiding organizations through the complexities of the modern business world. Similarly, organizational culture plays a pivotal role in shaping behavior, driving engagement, and fostering innovation. This book provides insights into how leaders can cultivate a positive culture that aligns with the organization's goals and values.

Lastly, the concept of competitive advantage is woven throughout the book. In an interconnected and globalized economy, maintaining a competitive edge requires a nuanced understanding of both internal and external factors. By integrating insights from occupational safety, employee performance, mental health, consumer behavior, brand image, leadership, and cultural influence, organizations can develop strategies that ensure long-term success.

This book is a valuable resource for business leaders, HR professionals, and anyone interested in the intricate dynamics of the modern workplace. It offers a holistic perspective that underscores the interconnectedness of various elements that contribute to organizational success. As you delve into its pages, I encourage you to consider how these insights can be applied to your own professional context, and how a holistic approach can transform your organization into a thriving, dynamic, and competitive entity.

Prof. Dr. Wiwiek Mardawiyah DARYANTO
Bursa – August 2024

CONTENTS

CHAPTER 1

Assessment and Evaluation of State Owned Enterprises Financial Health Performance of Construction Company: PT PP (Persero) in 2018-2022

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ABSTRACT

The Indonesian government significantly ramped up investments in infrastructure projects between 2020 and 2024, it increase 20% compared to the 2015-2019 period. This study aims to examine the financial performances of PT PP (Persero) as the one of State-Owned Enterprises (SOEs) in the construction industry during the period 2018-2022. The assessment of State Owned Enterprises (SOE) financial health is a crucial aspect of ensuring the financial sustainability and effectiveness of these entities in Indonesia. This assessment, mandated by The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002. The indicators of key financial ratios are Return on Equity (ROE), Return on Investment (ROI), liquidity ratios (Cash Ratio and Current Ratio), efficiency ratios (Collection Period and Inventory Turnover), activity ratios (Total Asset Turnover), and solvency ratios (Total Equity to Total Asset). Each indicator carries a specific weight, with the total weight score is 70 points. This weighted score serves as a benchmark for categorizing the overall financial health of the SOE. The Decree also provides a framework for categorizing SOE financial health based on their total assessment scores. This framework classifies SOE health into three categories: Healthy, Less Healthy, and Unhealthy. An analysis of PT PP (Persero)'s financial health from 2018 to 2022 indicates a decline. The company exhibited characteristics of a "Healthy" financial condition in 2018 (A) to “Less Healthy” in 2019 (BBB), with a further deterioration to "Less Healthy" state from 2020 to 2022 (B).

Keywords: Financial Health, Decree of Ministry of State Owned Company, Financial Ratio, SOEs, Construction Company.

I. INTRODUCTION

Since 2016 infrastructure development has been a priority. Presidential Regulation No. 3 of 2016 was released by the Indonesian government in 2016 with the aim of expediting the advancement of important infrastructure projects. The National Strategic Project, or *Proyek Strategis Nasional* (PSN) initiatives are anticipated to have significant economic effects. According to the Presidential Regulation No. 3 of 2016, projects carried out by national or local governments, as well as commercial organizations, constitute the PSN. These projects must incorporate a growth and equitable development strategy in order to enhance welfare and regional development. It is anticipated that the provision of infrastructure will facilitate the flow of people, products, and services, promoting regional development, closing the development gap between areas, and boosting overall economic growth (Khoirunurrofik and Anas, 2023).

From 2016 to 2022, 153 PSN projects of Rp1,040 trillion in investment value were finished between 2016 and 2022. Upstream oil and gas, railroads, irrigation, technology, clean water and sanitation, dams, airports, electricity, toll highways, and seaports are among the completed projects. A number of project-specific impact estimates have been produced, such as those for the West, Central, and East Palapa Ring Package project, which serves 440 cities and regencies and involves the construction of 48 dams with the goal of increasing the raw water supply by 2.67 billion cubic meters, reducing the potential for flooding by 10,300.74 cubic meters per second, increasing the raw water supply by 10,990 liters per second, irrigation of 283,000 hectares of rice fields, and producing 143 megawatts of electricity (Coordinating Ministry of Economic Affairs, 2022).

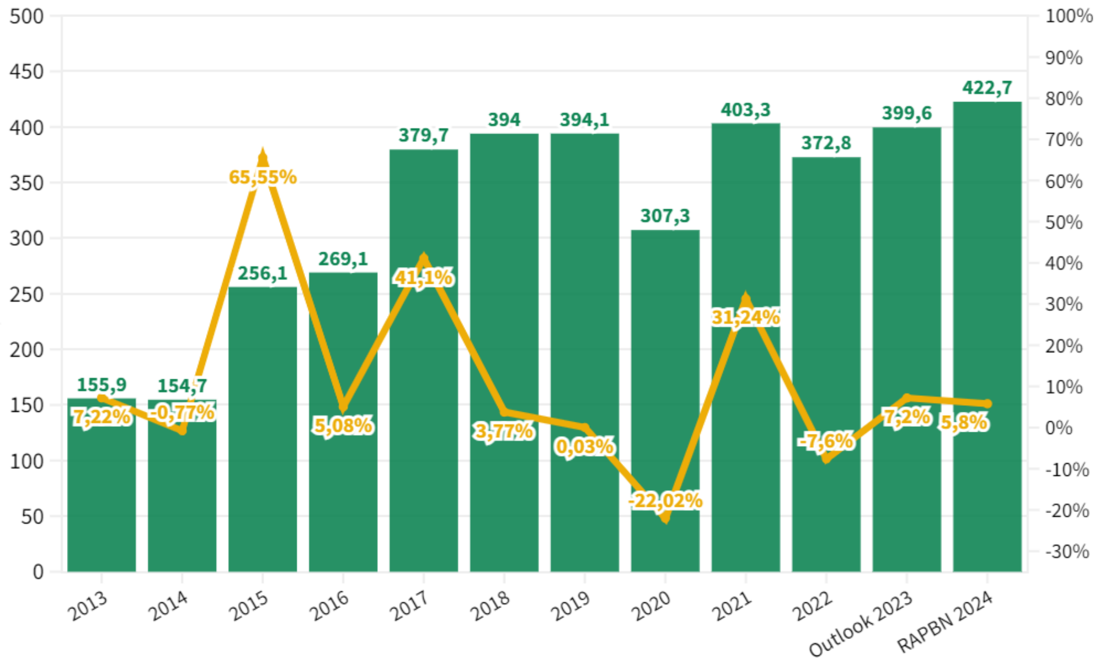

Figure 1. The State Budget of Infrastructure 2013 – 2024
Source: Indonesian Ministry of Finance APBN Data

As shown in Figure 1, the data indicates that Indonesia has significantly increased its infrastructure budget over the past decade, starting from 155.9 trillion IDR in 2013 to a proposed 422.7 trillion IDR in 2024, it reflecting a strategic focus on infrastructure development. While there have been periods of substantial growth, there have also been notable declines, particularly in response to economic challenges like the COVID-19 pandemic. Moving forward, the moderate growth projected for 2023 and 2024 suggests a period of stabilization and continued commitment to infrastructure investment to support long-term economic development.

According to The Decree of Ministry of State Owned Enterprises (SOEs) No.: KEP-100/MBU/2002, mandates that all SOEs in Indonesia, excluding publicly listed SOEs and SOEs established under specific laws, must conduct a comprehensive financial health assessment. This assessment utilizes key financial ratios and metrics to gauge the SOE's ability to generate profits, manage its debts, and maintain financial sustainability.

One of the prominent construction companies contributing to Indonesia’s infrastructure growth is PT Pembangunan Perumahan (Persero), or PT PP (Persero) Tbk. As a major player in the construction industry, PT PP Persero’s financial performance can be analysed through various financial ratios, which provide insight into the company’s efficiency, profitability, and overall financial health.

This research aims to examine the financial performances of PT PP (Persero) as the one of State-Owned Enterprises (SOEs) in the construction industry during the period 2018-2022. The Ministry of State-Owned Enterprises (SOE) Decree No. KEP-100/MBU/2002 will be used as a benchmark to assess the financial health of the SOEs. To achieve this objective, the study will address the following research question:

1. How do the financial performances of PT PP (Persero) during the period 2018-2022, as evaluated using the framework established by the Ministry of SOE Decree No. KEP-100/MBU/2002?
2. How has the overall financial health of PT PP Persero changed between 2018 and 2022, as measured by key financial ratios?

This research has two objectives. Firstly, it aims to conduct a comprehensive financial ratio analysis of PT PP Persero for the period 2018-2022. This analysis will assess the company's operational efficiency, profitability, and financial stability. Secondly, this study seeks to contribute to the broader academic understanding of financial performance analysis in the context of Indonesian state-owned enterprises (SOEs) within the construction industry.

II. LITERATURE REVIEW

A. Financial Ratio

Financial ratios show a company's funding structure, resource allocation, debt repayment capacity, and profit-making potential. Ratios give an overview of a business's status at a specific point in time and are especially useful for cross-temporal and industry comparisons (Srinivasan and Nivedha, 2020). By describing correlations between specific financial statement data, ratio analysis is another method of presenting information from financial statements. According to Kieso et al. (2008), this relationship might be stated as a percentage, level, or straightforward proportion.

B. PT PP (Persero) TBk (PTPP) Profile

PT PP (Persero) TBk (PTPP) was incorporated in 1953 under the name of NV Pembangunan Perumahan. The company was entrusted to construct large projects that were related to war compensations from the Japanese government. In 1971, the company became PT PP (Persero). Currently, the company owns nine subsidiaries, namely PT PP Semarang Demak, PT PP Sinergi Banjaratma, PT Sinergi Colomadu, PT PP Infrastruktur, PT PP Energi, PT PP Properti Tbk, PT Centurion Perkasa Iman, PT PP Presisi Tbk, and PT PP Urban (PT PP, 2024)

PT PP (Persero) TBk run business in the fields of Industry, Construction, Engineering Procurement and Construction (EPC), trade, area management, capacity building services in the field of construction, engineering and planning services, development and optimizing the utilization of the Company's resources for/increasing the value of the Company by implementing the principles Limited Liability Company principles.

C. The Decree of Ministry of State Owned Enterprises

The assessment of State Owned Enterprises (SOE) financial health is a crucial aspect of ensuring the financial sustainability and effectiveness of these entities in Indonesia. This assessment, mandated by The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002, encompasses a comprehensive evaluation of an SOE's performance across three key dimensions: financial, operational, and administrative aspects. The financial health assessment of State-Owned Enterprises (SOEs) encompasses all non-financial and financial SOEs, excluding publicly listed SOEs and those established under separate legislation. The overall health assessment of an SOE is determined by aggregating the scores obtained from each of these three aspects. According to The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002, the resulting classification into 'Healthy,' 'Less Healthy,' or 'Unhealthy' provides a clear indication of the SOE's overall financial standing, operational efficiency, and administrative effectiveness. The financial aspect for infrastructure SOEs, carries a total weight of 50 points, and non-infrastructure SOEs are assigned a total weight of 70 points.

D. Previous Research on Financial Ratio Analysis

Financial ratio analysis (FRA) is a widely recognized analytical method for identifying financial issues within various industries. This method's popularity and efficacy have been demonstrated by multiple studies, including those by Plat and Plat (2002), Amendola et al. (2015), and Indriaty et al. (2019). These studies underscore the utility of FRA in diagnosing financial health and forecasting potential problems in companies.

A significant application of financial ratio analysis can be observed in the Indonesian banking industry. According to Pratiwi (2023), financial ratios have been instrumental in evaluating the sector's performance, allowing for the assessment of whether the banking industry is in good financial standing. Such analyses are crucial for stakeholders to make informed decisions regarding investments, policy-making, and risk management.

In the construction industry, financial ratio analysis has also been extensively utilized. Daryanto and Hestiwati (2020) applied FRA to Indonesian state-owned construction businesses, specifically analyzing PT Nindya Karya (Persero)'s annual reports. They employed eight selected financial ratios to assess the company's financial performance over time. Their analysis highlighted both the strengths and weaknesses of PT Nindya Karya, offering a comprehensive view of its financial health and performance trends. This kind of analysis is essential for identifying areas that require improvement and for formulating strategies to enhance overall financial performance.

Similarly, Afriza and Daryanto (2019) conducted a comparative analysis of the financial performance of two State-Owned Enterprises (SOEs) in Indonesia's construction sector, PT Adhi Karya and PT Wijaya Karya, over the period from 2011 to 2015. By employing financial ratios, they assessed and compared the financial health of these companies. Their findings indicated that both companies maintained healthy financial conditions throughout the study period. The insights gained from this analysis are valuable for managers in the construction industry, enabling them to make informed decisions that can enhance market share and profitability.

The study by Purwaningtyas, Gunawan, and Sugiawan (2023) on PT Astra International, Tbk provides a foundational framework for understanding financial ratio analysis. The study utilized descriptive quantitative methods to describe, explain, and summarize various financial conditions and variables. The key findings of this study indicated that PT Astra International was liquid but had not maximized the utilization of its assets and equity to generate maximum revenue.

Another relevant study examines the financial performance of PT Pupuk Sriwidjaja from 2010 to 2019 by Butarbutar (2021). This study aimed to assess the company's financial statements using liquidity, solvency, activity, and profitability ratios over a ten-year period. The research approach was quantitative, utilizing secondary data from the company's financial report. Key findings include that the company's financial performance was strong in terms of liquidity ratios. In terms of solvency ratios, the company exhibited good financial stability. However, the company's performance in managing daily activities, as indicated by activity ratios, was poor, profitability was also weak.

The study by Agusta and Hati (2018) focuses on the calculation of liquidity, solvency, and profitability ratios in manufacturing companies. The aim was to determine the financial condition of these companies. Secondary data in the form of statements of financial position and income statements were used. The descriptive analysis method was employed, involving the interpretation of data related to facts, circumstances, variables, and ongoing events. The study found that the companies were in proper and healthy condition based on liquidity and solvency ratios, but in a poor condition based on profitability ratios.

These studies collectively demonstrate the versatility and importance of financial ratio analysis across different sectors. Whether in banking or construction, FRA provides a robust framework for evaluating financial performance, identifying potential issues, and guiding strategic decisions. The consistent use of financial ratios in these analyses underscores their reliability and effectiveness in delivering actionable financial insights.

III. METHODOLOGY

This study utilizes financial ratio analysis to assess the performance of PT PP (Persero), a state-owned enterprise (SOE) in the non-financial services sector. The methodology aligns with the financial health assessment framework established by The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002. Data for the analysis is derived from PT PP's audited annual reports for the period 2018-2022.

Financial ratios, as defined by the decree, serve as the primary measurement tool. These ratios will be used to evaluate PT PP's operational efficiency, profitability, and financial stability.

The Decree of Ministry of State Owned Enterprises No. : KEP-100/MBU/2002 decree also provides a framework for categorizing SOE financial health based on their total assessment scores. This framework classifies SOE health into three categories: Healthy, Less Healthy, and Unhealthy.

In the Healthy category, represents the highest level of financial well-being and is further subdivided into AAA (score > 95), AA (score > 80 and ≤ 95), and A (score > 65 and ≤ 80). Less Healthy category represents a moderate level of financial health and is subdivided into BBB (score > 50 and ≤ 65), BB (score > 40 and ≤ 50), and B (score > 30 and ≤ 40). Unhealthy category represents the lowest level of financial health and is subdivided into CCC (score > 20 and ≤ 30), CC (score > 10 and ≤ 20), and C (score ≤ 10).

By employing this established framework, the research aims to evaluate PT PP's financial performance and categorize its overall health within the defined parameters.

A. The Variables and Weight Score

State-Owned Enterprises (SOEs) in Indonesia undergo a comprehensive financial health evaluation using a weighted indicator system. This system incorporates key financial ratios such as Return on Equity (ROE), Return on Investment (ROI), liquidity ratios (Cash Ratio and Current Ratio), efficiency ratios (Collection Period and Inventory Turnover), activity ratios (Total Asset Turnover), and solvency ratios (Total Equity to Total Asset). Each indicator carries a specific weight, with the total weight score is 70 points. This weighted score serves as a benchmark for categorizing the overall financial health of the SOE.

Table 1. List of financial aspect indicators and weights

INDICATORS	WEIGHT SCORE
ROE	20
ROI	15
Cash Ratio	5
Current Ratio	5
Collection Period	5
Inventory Turnover	5
Total Asset Turnover	5
Total Equity to Total Asset	10
Total weight score	70

Source: The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002

Profitability Performance

Profitability performance reflects a company's ability to translate its operations into financial gains. A strong performance indicates efficiency in generating profits for its owners, the shareholders. Profitability is measured using the following criteria:

Return on Equity = (Net Income/Shareholders' Equity) x 100 %

One key metric used to assess profitability performance is Return on Equity (ROE). This ratio, expressed as a percentage, measures how effectively a company utilizes shareholders' investment (equity) to generate profit. According to Anthony et al., (2012) return on owners' equity (ROE) indicates the earnings a firm generates from the funds invested by shareholders, whether these funds come directly or through retained earnings. This ratio is particularly significant for current and potential shareholders as it serves as a key indicator of the firm's ability to create shareholder value. Management also closely monitors ROE, viewing it as a crucial measure of their success in generating returns for shareholders. However, division managers typically do not focus on ROE, as their primary concern is the efficient utilization of assets rather than the mix of debt and equity used to finance those assets.

Table 2. List of ROE Assessment Scores

ROE (%)	SCORE
15 < ROE	20
13 < ROE <= 15	18
11< ROE <= 13	16
9 < ROE <= 11	14
7,9<= 9	12
6,6<= 7,9	10
5,3<= 6,6	8,5
4 <= 5,3	7
2,5 <ROE<= 4	5,5
1 <= 2,5	4
0 <= 1	2
ROE < 0	0

Source: The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002

Return on investment displays the profit generated by the capital employed by the company. This ratio can also be used to demonstrate how well a company manages its investments. (Arsita 2021)

$$\text{Return on Investment} = (\text{EBIT} + \text{Depreciation}/\text{Capital Employed}) \times 100$$

Table 3. List of ROI Assessment Scores

ROI (%)	SCORE
18 < ROI	15
15 < ROI < = 18	13,5
13 < ROI < = 15	12
12 < ROI < = 13	10,5
10,5 < ROI < = 12	9
9 < ROI < = 10,5	7,5
7 < ROI < = 9	6
5 < ROI < = 7	5
3 < ROI < = 5	4
1 < ROI < = 3	3
0 < ROI < = 1	2
ROI < 0	1

Source: The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002

Liquidity Performance

Liquidity ratios assess a company's ability to meet its financial obligations promptly and effectively. These ratios are typically calculated using the current ratio, quick ratio, and cash ratio (Webb, 2010). Liquidity performance is a crucial aspect of a company's financial health. It reflects a company's ability to meet its short-term obligations (due within a year) using its most readily available resources. A strong liquidity position ensures a company can pay its bills, maintain operations, and seize new opportunities without relying heavily on external financing.

Cash Ratio = (Cash + cash equivalents/Current Liabilities) x 100 %

The cash ratio examines the proportion of a company's liabilities that can be covered using only its cash and cash equivalents in the short term (Bragg, 2007). This ratio provides a conservative measure of liquidity, highlighting the firm's ability to meet immediate obligations without relying on other current assets. A higher Cash Ratio indicates a stronger liquidity position, with the company having more readily available resources to meet immediate obligations.

Table 4. List of Cash Ratio Assessment Score

Cash Ratio = x (%)	Score
x > = 35	5
25 < = x < 35	4
15 < = x < 25	3
10 < = x < 15	2
5 < = x < 10	1
0 < = x < 5	0

Source: The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002

Current Ratio measures a company's total current assets (cash, receivables, inventory) to its current liabilities. The current ratio evaluates a company's capacity to cover its short-term liabilities with its short-term assets, highlighting potential losses due to non-liquid assets (Agustina, 2018). A higher Current Ratio suggests a greater ability to cover short-term debts using all current assets, providing a safety net in case of unexpected cash flow disruptions.

Current ratio = (Current Asset/Current Liabilities) x

Table 5. List of Current ratio Assessment Score

Cash Ratio = x (%)	Score
125 < = x	5
110 < = x < 125	4
100 < = x < 110	3
95 < = x < 100	2
90 < = x < 95	1

x < 90	0

Source: The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002

Collection Period measures the average time it takes a company to collect payment from its customers after a sale is made. A shorter Collection Period indicates faster cash inflows, strengthening liquidity. Conversely, a longer Collection Period suggests potential challenges in collecting receivables, which can strain cash flow.

Collection Period = (Average Accounts Receivables/Sales Revenue) x 365

Table 6. List of Collection Period Assessment Score

Collection Period = x (days)	Adjustment (days)	Score
x < = 60	30 < x	5
60 < x < = 90	30 < x < = 35	4,5
90 < x < = 120	25 < x < = 30	4
120 < x < = 150	20 < x < = 25	3,5
150 < x < = 180	15 < x < = 20	3
180 < x < = 210	10 < x < = 15	2,4
210 < x < = 240	6 < x < = 10	1,8
240 < x < = 270	3 < x < = 6	1,2
270 < x < = 300	1 < x < = 3	0,6
300 < x	0 < x < = 1	0

Source: The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002

Activity Ratio

Activity ratios assess a company's efficiency in utilizing its assets to generate revenue. They provide insights into how effectively a company manages its inventory and overall assets to create sales. Inventory Turnover measures how often a company sells and replaces its inventory throughout a period. This metric is crucial for management, as a high inventory turnover suggests effective inventory management and the ability to generate substantial sales year after year (Nuhu, 2014). Understanding inventory turnover helps in assessing the advantages of current inventory practices and informs strategies for improvement.

Inventory Turnover = Cost of goods sold/Average

Table 7. List of Inventory Turnover Assessment Score

Inventory Turnover = x (days)	Adjustment (days)	Score
x < = 60	30 < x	5
60 < x < = 90	30 < x < = 35	4,5
90 < x < = 120	25 < x < = 30	4
120 < x < = 150	20 < x < = 25	3,5
150 < x < = 180	15 < x < = 20	3
180 < x < = 210	10 < x < = 15	2,4
210 < x < = 240	6 < x < = 10	1,8
240 < x < = 270	3 < x < = 6	1,2
270 < x < = 300	1 < x < = 3	0,6
300 < x	0 < x < = 1	0

Source: The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002

Total Asset Turnover measures how effectively a company utilizes its total assets to generate revenue (Megginson, 2008). A higher Total Asset Turnover indicates the company is generating more sales from each dollar invested in its assets. This suggests efficient asset utilization and strong operational performance. Conversely, a lower Total Asset Turnover may suggest underutilized assets or inefficiencies in converting assets into sales.

Total Asset Turn Over = (Revenue/Capital Employed) x

Table 8. List of Total Asset Turnover Assessment Score

TATO = x (%)	Adjustment = x (%)	Score
120 < x	20 < x	5
105 < x < = 120	15 < x < = 20	4,5
90 < x < = 105	10 < x < = 15	4
75 < x < = 90	5 < x < = 10	3,5
60 < x < = 75	0 < x < = 5	3
40 < x < = 60	x < = 0	2,5
20 < x < = 40	x < 0	2
x < = 20	x < 0	1,5

Source: The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002

Solvency Ratio

Solvency ratios evaluate a company's ability to meet its long-term financial obligations. They provide insights into a company's financial health and its capacity to survive in the long run.

One crucial solvency ratio is the Total Equity to Total Assets Ratio. This ratio, expressed as a percentage, measures the proportion of a company's assets financed by shareholders' equity (investment) compared to total debt.

Total equity to total asset = (Total equity/Total asset) x

Table 9. List of Solvency Assessment Score

Total Equity to Total Asset (%) = x	Score
x < 0	0
0 < = x < 10	4
10 < = x < 20	6
20 < = x < 30	7,25
30 < = x < 40	10
40 < = x < 50	9
50 < = x < 60	8,5
60 < = x < 70	8
70 < = x < 80	7,5
80 < = x < 90	7
90 < = x < 100	6,5

Source: The Decree of Ministry of State Owned Enterprises No.: KEP-100/MBU/2002

IV. RESULTS AND DISCUSSION

A. Profitability Performance

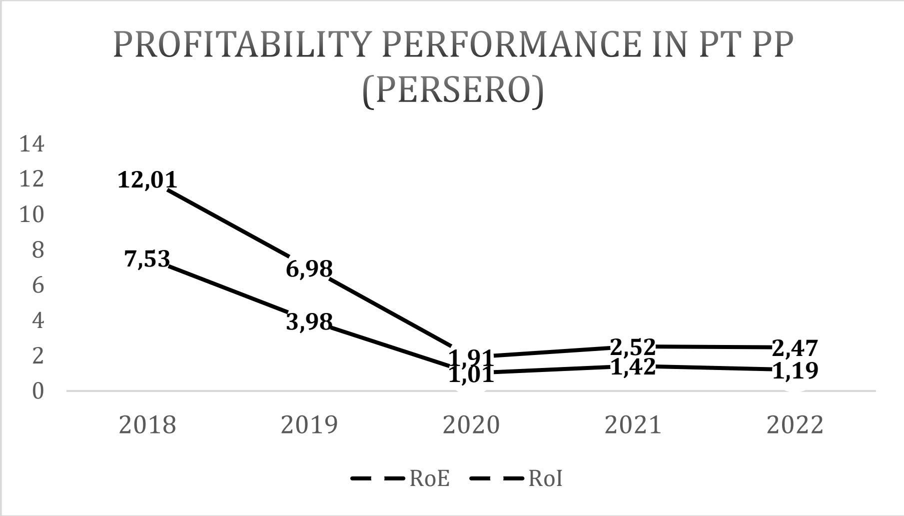

Figure 2. Profitability Performance in PT PP (Persero)

The figure 2 reveals a concerning trend in PT PP Persero's profitability from 2018 to 2022. PT PP (Persero) started with a healthy ROE of 12.01% in 2018. A significant drop in profitability occurred from 2018 to 2020. ROE fell to 6.98% in 2019 and further plummeted to a low of 1.91% in 2020. There's a slight upward movement in 2021 (2.52%) and relative stability in 2022 (2.47%). However, the ROE remains considerably lower compared to the initial value in 2018. The ROI data mirrors the ROE trend, showing a decline from 7.53% in 2018 to a low of 1.01% in 2020. Similar with the ROE, a slight increase in ROI is observed in 2021 (1.42%) and 2022 (1.19%), but it remains significantly lower than the initial level. It suggests a substantial decline in PT PP Persero's profitability from 2018 to 2020, with a very limited recovery in recent years. Both ROE and ROI metrics indicate a need for further investigation into the factors causing this decline and the reasons behind the slow improvement.

B. Liquidity performance

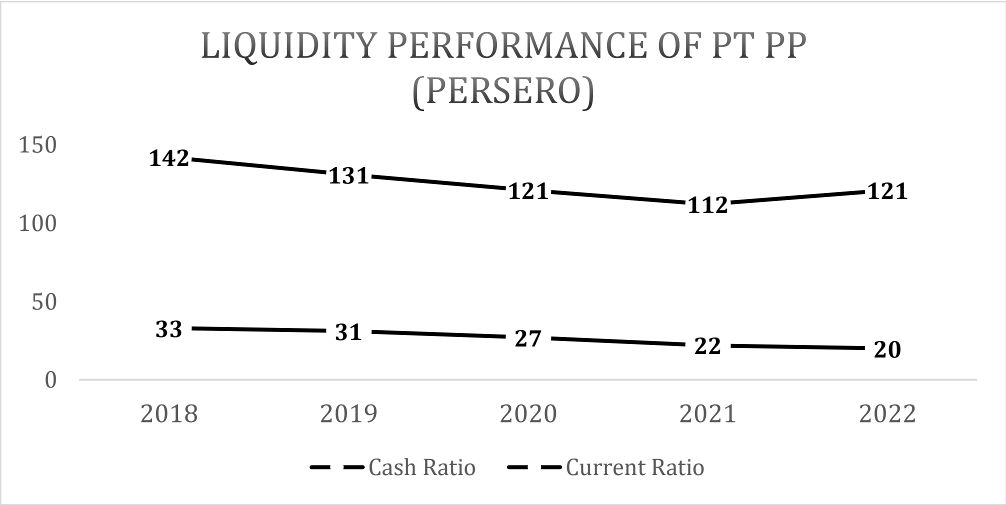

Figure 3. Liquidity Performance in PT PP (Persero)

The figure 3 reveals a PT PP Persero's liquidity performance from 2018 to 2022 over the past five years. There is a clear downward trend in the cash ratio over the five-year period. A decreasing cash ratio indicates that PT PP (Persero) has been holding less cash relative to its short-term liabilities each year. This could suggest a declining liquidity position in terms of immediate cash availability. By 2022, the cash ratio has dropped to 20%, which may raise concerns about the company's ability to cover its short-term liabilities purely with cash. This could indicate a higher liquidity risk.

The current ratio also shows a downward trend from 2018 to 2021, but it increases slightly in 2022. A decreasing current ratio typically suggests that the company's ability to cover its short-term liabilities with its short-term assets is weakening. However, the ratio remains above 100% throughout the period, indicating that the company has more current assets than current liabilities. The slight increase in the current ratio in 2022 to 121% may suggest some improvement in the company's short-term financial health compared to the previous year.

Both the cash ratio and the current ratio indicate a general decline in liquidity over the period from 2018 to 2021. The cash ratio in particular has dropped significantly, pointing to a reduced cushion of liquid assets. The decline in both ratios suggests potential liquidity risks. A lower cash ratio means less immediate cash available, while a lower current ratio (though still above 100%) suggests a tighter situation in terms of covering short-term liabilities. The current ratio's improvement in 2022 is a positive sign, indicating that the company might have taken steps to enhance its liquidity position.

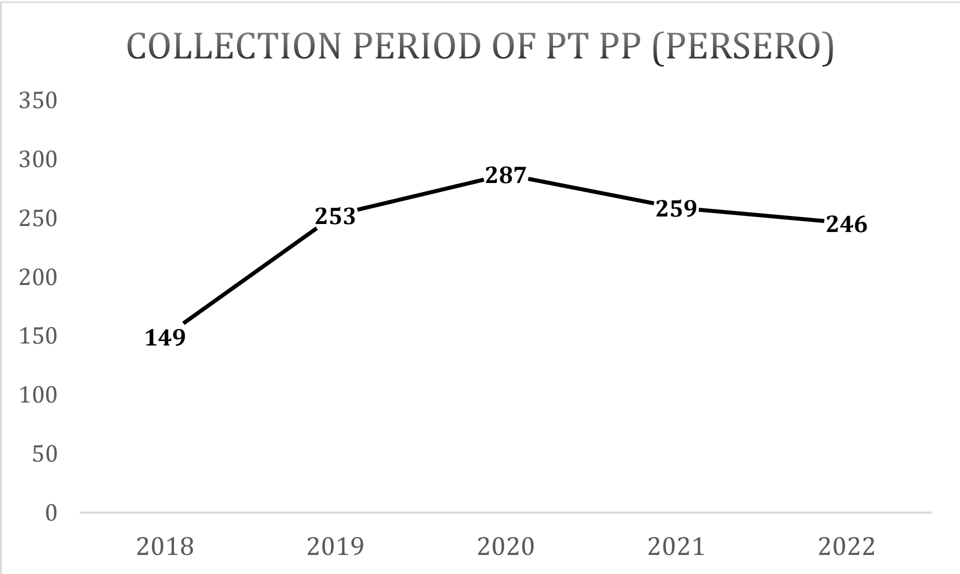

Figure 4. Collection Period of PT PP (Persero)

The figure 4 shows collection period of PT PP (Persero) for 2018 – 2022. PT PP Persero's collection period increased dramatically from 149 days in 2018 to a peak of 287 days in 2020. This represents a substantial lengthening of the time it takes to receive payment, which can negatively impact cash flow. While there's a slight decrease in 2021 (259 days) and 2022 (246 days), the collection period remains considerably higher compared to 2018.

A longer collection period means PT PP Persero has to wait longer to receive revenue, potentially leading to cash flow shortages and hindering their ability to meet short-term obligations or invest in growth opportunities. A delayed collection cycle increases the risk of bad debt, where customers are unable to pay their outstanding balances.

C. Activity Performance

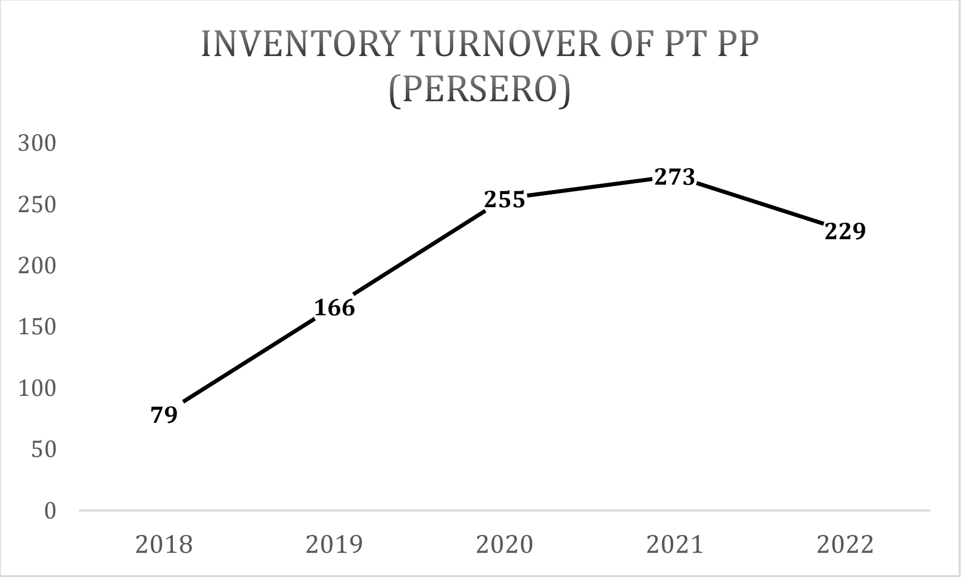

Figure 5. Inventory Turnover Trend of PT PP (Persero)

Figure 5 reveals a concerning trend in inventory management. Inventory Turnover, measured in days it takes to sell and replace inventory, has significantly worsened over the period. It increased from a healthy 79 days in 2018 to a concerning 273 days in 2021. A slight improvement is observed in 2022 (229 days), but it remains considerably higher compared to the initial value.

High inventory turnover indicates inefficient inventory management. This could be due to factors like overstocking, slow-moving inventory, or inefficient procurement practices. Such inefficiencies can lead to increased storage costs, obsolescence risk, and ultimately, reduced profitability.

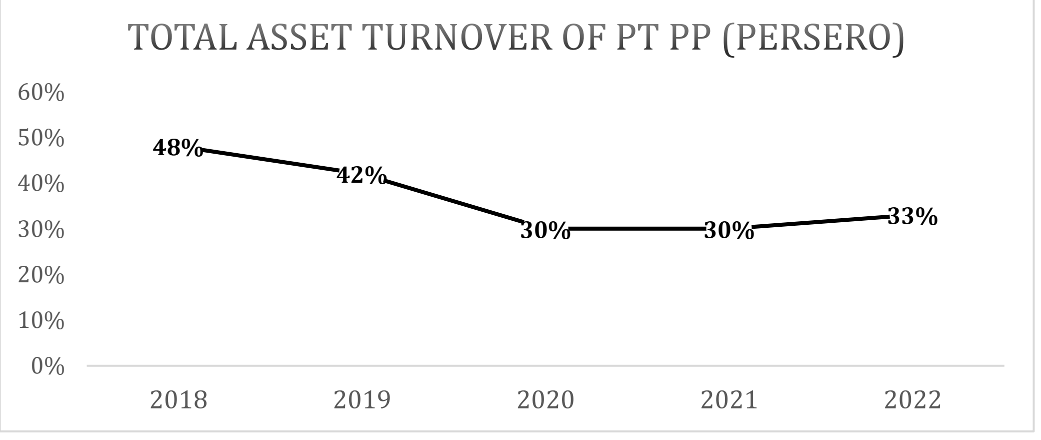

Figure 6. Total Asset Turnover Trend of PT PP (Persero)

Figure 6 shows Total Asset Turnover, which measures how effectively the company generates sales from its total assets. The data reveals a concerning downward trend in Total Asset Turnover. The continuous decline from 48% in 2018 to 30% in 2020 suggests that PT PP (Persero) was becoming less efficient in utilizing its assets to generate revenue during these years. This could be due to a variety of factors, including decreased sales, increased asset base without a corresponding increase in revenue, or operational inefficiencies. The stabilization at 30% in 2020 and 2021 indicates that the company's asset utilization efficiency did not deteriorate further but also did not improve. This might suggest that PT PP (Persero) had reached a point where it was maintaining its asset turnover without significant changes in operations or market conditions. The increase to 33% in 2022 is a positive sign, indicating a potential improvement in how effectively the company is using its assets to generate revenue. This could be due to increased sales, more efficient asset management, or a reduction in the asset base.

Despite the slight improvement in 2022, the overall trend from 2018 to 2022 shows a significant decline in the Total Asset Turnover ratio. PT PP (Persero) was more efficient in generating sales from its assets in 2018 compared to 2022. The decline suggests that the company may have faced challenges in maintaining sales growth relative to its asset base or may have expanded its asset base without a proportional increase in revenue. The improvement in 2022 could indicate the beginning of a recovery in efficiency, but it remains to be seen if this trend will continue.

D. Solvency Ratio

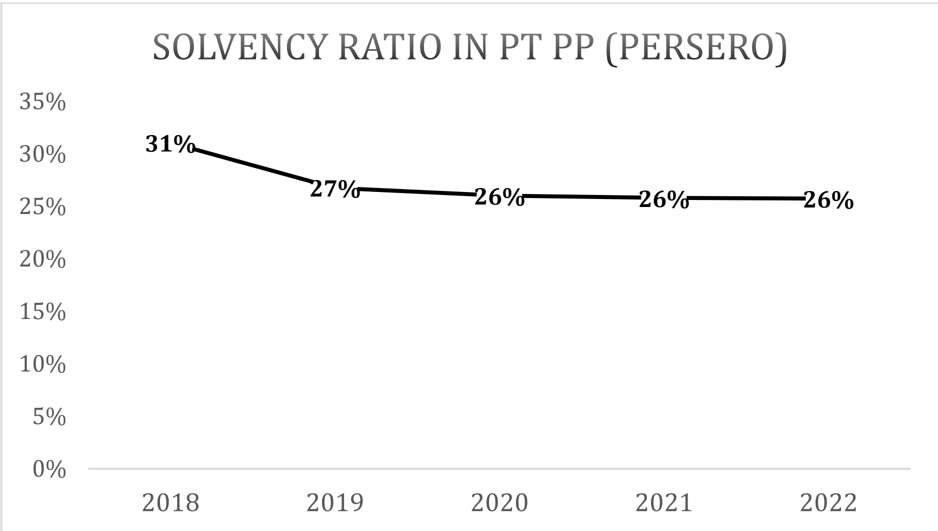

Figure 7. Solvency Trend of PT PP (Persero)

The Total Equity-to-Asset Ratio shows in Figure 7 a relatively stable trend throughout the period (2018 – 2022), ranging from 26% to 31%. A higher ratio indicates a larger portion of assets financed by shareholders' equity, reducing reliance on debt, and improving solvency. In this case, PT PP Persero seems to maintain a moderate balance between debt and equity financing.

E. Test Result

Tables 10 and 11 show the scoring measurements of PT PP. The highest score incurred in 2018, which has a total weight of 51.5. Based on the scoring and weight of PT PP, over the period from 2018 to 2022, PT PP's financial health exhibited a clear downward trend. Starting from a "Less Healthy" status in 2018, the company moved to a more critical "Unhealthy" status from 2020 onwards. The primary factors contributing to this decline include deteriorating profitability (RoE and RoI), liquidity issues (Cash Ratio and Current Ratio), and inefficiencies in asset management (Collection Period and Inventory Turnover).

In 2018, PT PP was categorized as "Less Healthy" with a score of 51.5, placing it in the BBB level. The following year, the score dropped to 36.95, still in the "Less Healthy" category but at the B level. From 2020 to 2022, PT PP's score further declined, categorizing it as "Unhealthy" with scores of 26.05, 26.55, and 26.25 respectively, all within the CCC level.

Table 10. Test Result for year 2018 to 2022 of PT PP (Persero)

Indicators	2018		2019		2020		2021		2022	
	Ratio	**Score**	**Ratio**	**Score**	**Ratio**	**Score**	**Ratio**	**Score**	**Ratio**	**Score**
RoE (%)	12,01	16	6,98	10	1,91	4	2,52	5,5	2,47	4
RoI (%)	7,53	6	3,98	4	1,01	3	1,42	3	1,19	3
Cash Ratio (%)	33	4	31	4	27	4	22	3	20	3
Current Ratio (%)	142	5	131	5	121	4	112	4	121	4
Collection Period (Days)	149	3,5	253	1,2	287	0,6	259	1,2	246	1,2
Inventory Turnover (Days)	79	4,5	166	3	255	1,2	273	0,6	229	1,8
Total Asset Turnover (%)	48	2,5	42	2,5	30	2	30	2	33	2
Equity/Asset Ratio (%)	31	10	27	7,25	26	7,25	26	7,25	26	7,25
Total Score		**51,5**		**36,95**		**26,05**		**26,55**		**26,25**

Table 11. Summary Test Result for year 2018 to 2022 of PT PP (Persero)

Year	Score	Weight	Weight Score	Value	Level	Category
2018	51,5	70	73,57	65 <TS< =80	A	HEALTHY
2019	36,95	70	52,79	50 <TS< =65	BBB	LESS HEALTHY
2020	26,05	70	37,21	30 <TS< =40	B	LESS HEALTHY
2021	26,55	70	37,93	30 <TS< =40	B	LESS HEALTHY
2022	26,25	70	37,50	30 <TS< =40	B	LESS HEALTHY

The financial ratio analysis highlights a consistent decline in PT PP's financial performance over the years, with key indicators such as RoE, RoI, collection period, and inventory turnover showing downward trends. The company's categorization shifted from "Healthy" to "Less Healthy" by 2019 onward, emphasizing the need for strategic measures to improve financial health and operational efficiency.

V. LIMITATION

This study provides valuable insights into the financial performance of PT PP within the construction industry. However, it is essential to acknowledge its limitations. The exclusive focus on the construction industry may limit the generalizability of the findings, as results derived from PT PP may not apply to other industries or sectors. Future research should consider including companies from various industries to enhance the generalizability of the results. Additionally, the analysis centers on PT PP alone, which may not reflect the financial performance characteristics of other companies within the construction industry. To obtain a more comprehensive understanding, future studies should include multiple companies from the construction sector to determine if similar results can be observed across the board. This research is confined to financial ratio analysis, ignoring other critical aspects such as operational efficiency, administrative effectiveness, and qualitative factors that influence company performance. Future research should integrate these dimensions to provide a more holistic view of a company's overall performance. Moreover, the study might have a limited temporal scope, focusing on a specific period, which may not capture long-term trends or cyclical variations in the financial performance of PT PP. Extending the study over a longer period could provide deeper insights into the company's performance dynamics. The analysis may not fully account for external economic factors, regulatory changes, or market conditions that could impact financial performance. Incorporating an analysis of these external factors could provide a more nuanced understanding of the financial results. Finally, the choice of financial ratios and analytical methods might influence the findings. Different methods or additional ratios could yield different insights, and future research should consider employing a variety of analytical techniques to validate and complement the results.

VI. CONCLUSION

This study evaluates the financial performance of PT PP (Persero) from 2018 to 2022 using the framework established by the Ministry of SOE Decree No. KEP-100/MBU/2002, along with key financial ratios. The findings indicate a marked deterioration in the company's financial health over the period in question.

In 2018, PT PP's financial performance was strong, with a score of 51.5 and a weight score of 73.57, categorizing it as 'A' (Healthy). However, by 2019, the score had decreased to 36.95, placing PT PP in the 'BBB' category, indicating a 'Less Healthy' status. The financial performance further declined in 2020, with a score of 26.05, relegating the company to the 'B' category, which is also considered 'Less Healthy.' This trend persisted in 2021 and 2022, with scores of 26.55 and 26.25, respectively, maintaining the 'B' category status.

The overall financial health of PT PP, as measured by key financial ratios such as Return on Equity (ROE), Return on Assets (ROA), cash ratio, current ratio, and debt-to-equity ratio, revealed a consistent decline. The downward trend in the weighted scores and categories reflects deterioration in these ratios, suggesting weakening profitability, liquidity, and solvency. The persistent 'Less Healthy' status from 2019 to 2022 indicates that PT PP faced ongoing financial challenges, including reduced operational efficiency and increased financial risk.The overall financial health of PT PP (Persero) has deteriorated significantly between 2018 and 2022, as evidenced by key financial ratios. The Return on Equity (RoE) and Return on Investment (RoI) showed substantial declines, indicating worsening profitability. Liquidity ratios, such as the Cash Ratio and Current Ratio, also declined, reflecting weakening short-term financial stability. Additionally, inefficiencies in asset management were evident, with increasing Collection Periods and declining Inventory Turnover rates. These factors collectively contributed to PT PP's shift from a "Less Healthy" to an "Unhealthy" financial status over the studied period.

VII. RECOMMENDATION

Based on the financial ratio analysis and the observed decline in PT PP (Persero)'s financial health from 2018 to 2022, it highlights the urgent need for effective managerial interventions to reverse the downward trend and ensure long-term sustainability. The management must prioritize actions that improve key financial ratios, particularly those related to profitability, liquidity, and efficiency. Proactive measures in cost management, revenue diversification, and technological investments are critical to enhancing profitability. Additionally, improving cash flow management and optimizing working capital are essential to address liquidity issues. Effective asset management and rigorous financial monitoring will help in maintaining operational efficiency and mitigating risks.

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CHAPTER 2

How Container Shipping Lines Adapting to COVID-19 Pandemic: A Case Study of Southeast Asian Shipping Company (period 2020-2022)

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ABSTRACT

The COVID-19 pandemic presented an unprecedented challenge to the global container shipping industry, disrupting established trade routes, causing port congestion, and generating volatile market conditions. This paper examines how container shipping lines in Southeast Asia adapted to these turbulent times, focusing on a single case study of a prominent regional player during the period 2020-2022. Employing an exploratory single case study approach and qualitative methodology, the research dives into the company's operational and strategic responses to the pandemic-induced disruptions.

Through in-depth interviews with key stakeholders of Southeast Asian Container Line including management, employees, and industry experts, the study investigates how the company navigated challenges such as port closures, supply chain bottlenecks, fluctuating demand, and labor shortages. It analyzes the specific strategies implemented to mitigate these challenges, including route optimization, fleet management, digital transformation, cost optimization, and forging new partnerships. By examining the successes and limitations of these strategies, the paper aims to understand the company's adaptability and resilience in the face of the pandemic.

Furthermore, the research analyzes the impact of these adaptations on the company's financial performance, operational efficiency, and market competitiveness. The study seeks to identify key factors that contributed to the company's success in navigating the crisis and to highlight the implications of these strategies for the broader Southeast Asian container shipping industry. The findings of this paper contribute valuable insights for future research and industry practice, offering a deeper understanding of the evolving dynamics of the container shipping industry in a post-pandemic world.

Keywords: Southeast Asia, Container Shipping Lines, Samudera Indonesia, COVID-19 Pandemic.

1. INTRODUCTION

The COVID-19 pandemic, a global health crisis of unprecedented magnitude, has had far-reaching consequences across all sectors of the economy, including the critical realm of international trade. The container shipping industry, a vital component of global supply chains, was particularly hard hit, facing unprecedented disruptions and volatile market conditions (UNCTAD Review of Maritime Transport, 2020). These disruptions, ranging from port closures and labor shortages to fluctuating demand and supply chain bottlenecks, have forced shipping lines to adapt and evolve their operations to maintain resilience and competitiveness.

This paper examines the adaptive strategies employed by container shipping lines in Southeast Asia, a region that plays a pivotal role in global trade, in response to the COVID-19 pandemic. It focuses on a single case study of a prominent regional shipping company, analyzing its operational and strategic responses during the period 2020-2022.

RESEARCH QUESTIONS:

The rapid and unpredictable nature of the pandemic-induced disruptions posed significant challenges to container shipping lines, requiring them to navigate complex and evolving circumstances. This research aims to address the following problem:

1) How did the Covid-19 pandemic affect the operational and strategic performance of Southeast Asian container shipping company?
2) What were the main challenges and opportunities faced by the company during the Covid-19 pandemic?
3) What strategies did the company adopt to cope with the challenges and opportunities?

RESEARCH OBJECTIVES:

1) To examine the impact of Covid-19 pandemic on the operational performance of Southeast Asian container shipping company.
2) To identify the challenges and opportunities faced by the company during and after the Covid-19 pandemic.
3) To understand the strategies adopted by the company to cope with the challenges and opportunities.

RESEARCH CONTRIBUTION

"How Container Shipping Lines Adapting to COVID-19 Pandemic: A Case Study of Southeast Asian Shipping Company (period 2020-2022)" is expected to contribute to the field of container shipping business, in the forms of:

- Providing analysis on how the Covid-19 pandemic affected the operational and strategic performance of Samudera Shipping Lines, an Indonesian-owned company in the container shipping industry.
- Identifying and discussing the main challenges and opportunities faced by Samudera Shipping Lines during and after the Covid-19 pandemic, and the strategies adopted by the company to cope with them. Using various frameworks and models, such as

PESTLE analysis, SWOT analysis, and Porter’s 5 Forces, to analyze the external and internal factors that influenced the company’s situation and decisions.

- Providing recommendations for improving the performance and resilience of Samudera Shipping Lines and the container shipping industry in the face of future crises.

2. LITERATURE REVIEW

Since its discovery, COVID-19, also referred to as the novel coronavirus, has expanded over the world at a never-before-seen rate. On January 30, 2020, the World Health Organization (WHO) proclaimed a state of emergency. On March 11, 2020, it later proclaimed the epidemic to be a pandemic (Stannard, 2020). Most nations implemented laws to **restrict immigration and ordered businesses to close** in order to prevent widespread infection (Lau et al., 2020; Koyuncu et al., 2021). However, given the increased level of global connectedness in today's world, the pandemic could spread more quickly and have an influence on the transportation system, the economy, and other areas (Liu et al., 2020**). First to be impacted was the country's economy** (Susskind and Vines, 2020; Padhan and Prabheesh, 2021). **International trade was restricted** in many economies, which **hampered global supply chains and reduced aggregate demand**. In the second quarter of 2020, **the world GDP shrank** by more than 4.9% (IMF 2020; Vidya and Prabheesh, 2020; McKibbin and Fernando, 2021). The reduction in income and diminished confidence among investors led to a **significant decline in the consumption of goods and services**. Similarly, worries about the epidemic made people hesitant to purchase particular goods and services (Eichenbaum et al., 2021). **Higher levels of uncertainty and lower stock returns** were among the detrimental effects of the COVID-19 pandemic on global equities (Al-Awadhi et al., 2020; Cao et al., 2020; Germsen and Koijen, 2020; Harjoto et al., 2020). **Reduced capital flows and barriers to investment**, project financing, and liquidity availability in the global financial system were the outcomes (Ambros et al., 2020; Corbet et al., 2020; Zaremba et al., 2020; Goodell, 2020). Moreover, COVID-19 and the associated preventive and control measures have had a significant impact on residents' day-to-day lives in areas like tourism (Skare ˇ et al., 2020; Kaushal and Srivastava, 2020; Gossling ¨ et al., 2020), mental health (Severo et al., 2020; Liang et al., 2020; Mann et al., 2020), and daily commuting (Teixeira and Lopes, 2020; Katrakazas et al., 2020).

The growth and decline of the **transportation sector are directly correlated** with economic development, as they are generated demands for economic activity (Bombelli, 2020; Saladi´e et al., 2020). Over 85% of international commercial transportation is handled by shipping. Accidents have the potential to disrupt the world's supply chain and severely harm the maritime sector (Chen et al., 2019; Fei et al., 2020). A lot of **ships have also been placed in quarantine** since the breakouts, preventing them from reaching the locations where containers are supposed to be transported. Even while this measure was used to halt the spread of COVID-19, it has also had a detrimental effect on maritime trade (McKibbin and Fernando, 2021; Wang et al., 2022) and jeopardized the welfare and safety of seafarers (Stannard, 2020; Han et al., 2023).

- **Porter's 5 FORCES:** A framework that analyzes the competitive forces that shape an industry and its profitability. It can help us understand the attractiveness and dynamics of the international container shipping industry in Southeast Asian company. The 5 Forces are Competition in the Industry, Potential of New Entrants into the industry, Power of Suppliers, Power of Customers, and Threat of Substitute Products.

- **PESTLE Analysis:** This tool identifies how various macro-environmental factors may affect an organization and its competitive standing. PESTLE stands for Political, Economic, Sociocultural, Technological, Legal, and Environmental factors. To help us understand the external context and trends that influence the international container shipping industry in Southeast Asia, as well as the opportunities and threats they pose. PESTLE analysis will be used to examine how the Covid-19 pandemic has affected the political stability, economic growth, social behavior, technological innovation, legal regulations, and environmental sustainability of the industry and the company.

- **SWOT Analysis:** This tool analyzes the strengths, weaknesses, opportunities, and threats of an individual or organization to evaluate its internal potential. SWOT stands for Strengths, Weaknesses, Opportunities, and Threats. This tool can help assess the internal capabilities and resources of Southeast Asian Container Shipping Lines, as well as the external factors that may affect its performance. We can use SWOT analysis to identify the competitive advantages, core competencies, areas of improvement, market gaps, growth prospects, and potential risks of the company.

3. RESEARCH METHODOLOGY

- **DATA COLLECTION METHODS**
  - Researcher plans to use combination of primary and secondary data sources to collect both qualitative and quantitative data for this research.
  - Interviews and Surveys with Subject Matter Experts (SMEs) such as the managers and employees of Southeast Asian Shipping Lines to gather their opinions, perceptions, experiences, and feedback on the company's performance and strategies during and after the Covid-19 pandemic.
  - Internet and Desktop study will also be used to collect some numerical data, such as the company's cargo volume, revenue, cost, and profit of the company.
  - Documents and reports will be used to review and analyze various documents and reports related to the company and the industry, such as annual reports, financial statements, press releases, newsletters, websites, blogs, social media posts, news articles, journals, books, and databases. These sources will also be used to obtain factual and historical data, as well as to verify and triangulate the data collected from interviews and surveys.

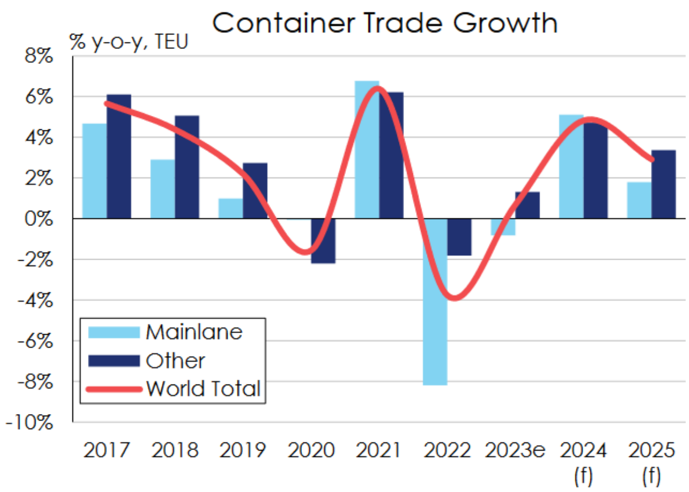
- **DATA ANALYSIS METHODS**
  - This research utilizes a qualitative methodology, employing triangulation between information collected from in-depth interviews with subject matter

experts within the company, previous Literature Study, and Supporting Records/Publications/Documents from the period. These interviews will focus on gathering rich and detailed insights into the company's decision-making processes, operational adaptations, and strategic initiatives in response to the COVID-19 pandemic. The interview data will be analyzed through a thematic analysis approach, identifying key themes and patterns that emerge from the collected data.

4. RESULT AND DISCUSSION

The pandemic had a severe impact on the global economy and trade, leading to a sharp decline in container trade volumes and port throughput. According to the International Transport Forum, global container trade volumes declined by 8.6% in February 2020 compared to the same month of 2019, and the decline was likely larger in March 2020. The decline was particularly marked in the Far East, Europe, North America, and Oceania, while it was not yet noticeable in other emerging economies, such as Latin America, Sub-Saharan Africa, and the Indian Subcontinent and the Middle East.

Exhibit 1.



Source: Clarksons Research, 2024

The pandemic also disrupted the supply and availability of container shipping capacity, as carriers had to adjust to the changing demand patterns and cope with the operational challenges posed by the pandemic. Carriers resorted to massive blank sailings, that is, skipping port calls, to reduce supply and avoid price reductions. These blank sailings increased significantly compared to previous years, with 188 in February/March 2020, of which 85 were on the Asia-North America West Coast trade lane and 49 on the Asia-North Europe trade lane. More cancellations were announced in the following months, affecting up to 30% of the Far East-Europe service capacity and up to 20% of the Trans-Pacific service capacity.

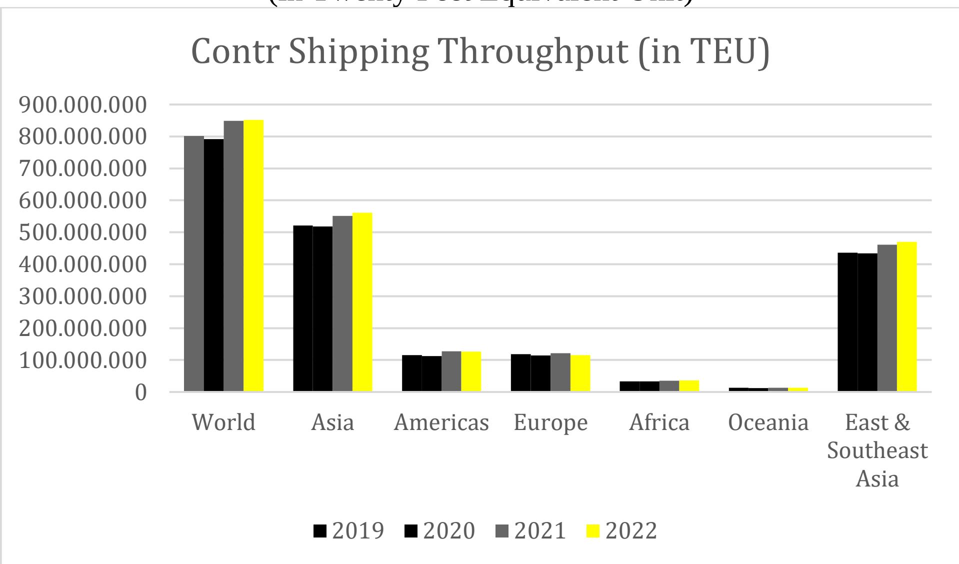
The blank sailings, combined with the pandemic-related delays in ports and inland transport systems, led to a severe shortage of containers, especially in China, the main exporter of containerized goods. Empty containers were left in places where they were not needed and repositioning them became difficult and costly. The shortage of containers and container ships resulted in a surge in container freight rates, which reached historical highs in some trade routes. For example, the cost of shipping a 40-foot container from China to America's west coast peaked at $20,600 in September 2021, up from $1,400 in February 2020.

The pandemic also had other impacts on the international container shipping industry, such as changes in consumption and shopping patterns, increased demand for e-commerce and express delivery, shifts in trade flows and routes, acceleration of digitalization and innovation, and heightened environmental and social awareness. These impacts will have lasting effects on the industry, as it adapts to the new normal and prepares for the post-pandemic recovery.

The global container shipping industry is a vital part of the world trade system, transporting about 80% of the value of global trade in goods. Before the COVID-19 pandemic, the industry was facing several challenges, such as overcapacity, low freight rates, environmental regulations, trade tensions, and geopolitical uncertainties.

According to UNCTAD, the global container port throughput reached 802 million TEUs (twenty-foot equivalent units) in 2019, an increase of 2% from 2018. The growth rate was lower than the previous year, reflecting the slowdown in global economic activity and trade volumes. The top 20 container ports accounted for 41% of the total throughput, with Shanghai, China, being the busiest port with 43.3 million TEUs (see Exhibit 2 and Exhibit 3).

Exhibit 2. Container Shipping Throughput
(in Twenty Feet Equivalent Unit)



Source: UNCTAD 2024, processed by Author

The global container fleet capacity amounted to 23.9 million TEUs in January 2020, an increase of 4.1% from the previous year. The average size of container ships also increased, as carriers sought to achieve economies of scale and reduce operating costs. However, the demand for container shipping did not keep pace with the supply, resulting in low utilization rates and downward pressure on freight rates. The average spot freight rate index declined by 5.6% in 2019, reaching $1,218 per FEU (forty-foot equivalent unit).

Exhibit 3. Container Throughput East and Southeast Asia Region

Asia Pacific	M. teu lifts				Year-on-Year		
	2019	2020	2021	2022	2023	Growth	%
Busan	21.99	21.81	22.50	21.82	22.99	UP BY...	5%
Dalian	8.75	5.11	3.67	4.46	5.00	UP BY...	12%
Guangzhou	22.84	23.19	24.18	24.86	25.41	UP BY...	2%
Haiphong	5.13	5.14	5.82	5.63			
Ho Chi Minh	7.22	7.20	7.95	7.91	7.67	DOWN BY...	-3%
Hong Kong	18.39	17.95	17.85	16.69	14.34	DOWN BY...	-14%
Kaohsiung	10.43	9.62	9.86	9.49	8.83	DOWN BY...	-7%
Laem Chabang	8.11	7.55	8.49	8.74	8.87	UP BY...	1%
Lianyungang	4.77	4.81	5.04	5.57	6.14	UP BY...	10%
Manila	5.32	4.43	4.98	5.47	5.21	DOWN BY...	-5%
Nanjing	3.31	3.03	3.10	3.20	3.45	UP BY...	8%
Ningbo	27.54	28.73	31.08	30.78	35.30	UP BY...	15%
Port Klang	13.58	13.24	13.83	13.22	13.50	UP BY...	2%
Qingdao	21.01	22.00	23.70	25.67	28.72	UP BY...	12%
Rizhao	4.52	4.86	5.18	5.80	6.26	UP BY...	8%
Shanghai	43.30	43.50	47.03	47.30	49.16	UP BY...	4%
Shenzhen	25.77	26.55	28.76	30.04	29.88	DOWN BY...	-1%
Singapore	37.20	36.87	37.55	37.29	39.01	UP BY...	5%
Tanjung Pelepas	9.10	9.80	11.20	10.51	10.48	DOWN BY...	0%
Tanjung Perak	3.90	3.60	3.90	3.97			
Tanjung Priok	7.66	6.92	6.75	7.23			
Tianjin	17.30	18.36	20.26	21.02	22.17	UP BY...	5%
Tokyo	5.01	4.75	4.86	4.94	4.57	DOWN BY...	-8%
Xiamen	11.08	11.41	12.03	12.43	12.55	UP BY...	1%

Source: Clarksons Research, CIM 2024

The global container shipping industry also faced increasing environmental regulations, such as the International Maritime Organization (IMO) 2020 rule that required ships to use low-sulphur fuel or install scrubbers to reduce emissions. This increased the operational costs and uncertainty for the carriers, as they had to adjust to the new fuel standards and prices. Moreover, the industry was affected by the trade tensions between the United States and China, which led to lower trade volumes, tariff changes, and shifts in trade routes. The industry also had to cope with the geopolitical risks and uncertainties in regions such as the Middle East, the Persian Gulf, and the South China Sea.

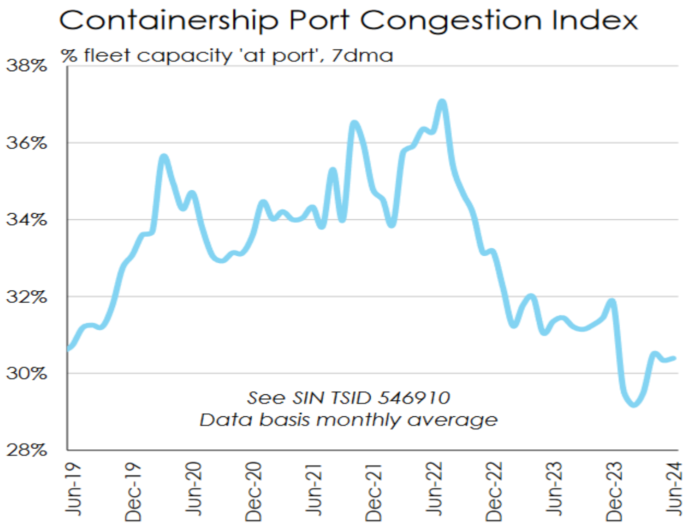
In summary, the global container shipping industry situation before the COVID-19 pandemic was characterized by a mismatch between supply and demand, low profitability, environmental challenges, and trade and geopolitical disruptions. The pandemic further exacerbated these issues, as it caused a sharp decline in global trade, port congestion, container shortages, and supply chain disruptions. The industry is still recovering from the impact of the pandemic and faces new challenges and opportunities in the post-pandemic era.

Container Shipping Industry during COVID-19 Pandemic

The current situation of the global container shipping industry is very challenging and complex, as the industry is still recovering from the impact of the COVID-19 pandemic and facing new problems and uncertainties. **Some of the main issues affecting the industry are**:

- **Restriction of Mobility:** Governments across the globe were taking precaution and drastic measures in order to limit the spreading of Pandemic. These measures came down to restriction of mobility especially for people; however, this resulting in limitation not only socially, but affecting even more on economic activities. Companies cease to operate during the outbreak, labours movement are controlled, quarantine and lockdowns were in place. All this affecting global trade and disrupt global supply chains movements.

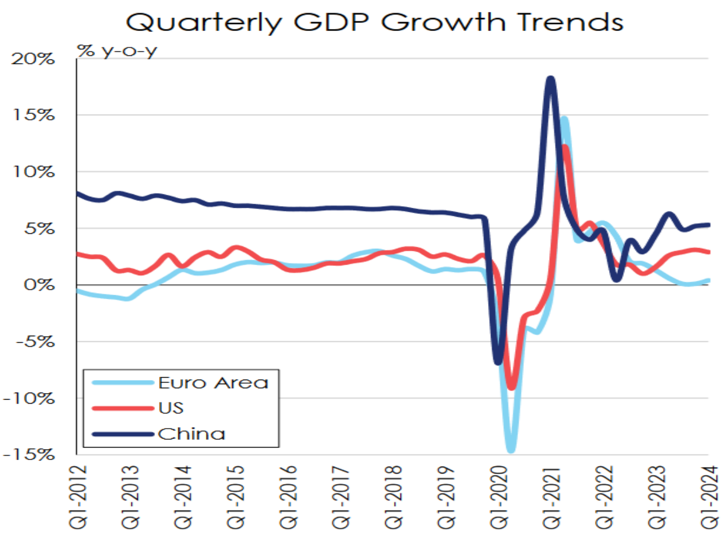
Exhibit 4.



Source: Various Data, Clarksons Research, 2024

- Port congestion: The pandemic caused a sharp decline in global trade, port operations, and container availability in 2020, leading to severe bottlenecks and delays at major ports around the world. Although the situation has improved slightly in 2021 (see Exhibit 4), port congestion continues to significantly slow the circulatory movement of ships, containers, and other transport assets, removing capacity, lengthening transit times, and forcing shipping rates much higher. As of November 2021, there were still more than 100 container ships waiting to berth at the ports of Los Angeles and Long Beach, the busiest in the US. In China, an outbreak of COVID-19 in Guangdong province in May 2021 caused acute congestion at the region's ports, especially Yantian, which handles about a quarter of China's exports to the US. The congestion spread to other ports in Asia and Europe, disrupting the global supply chain and creating a domino effect.

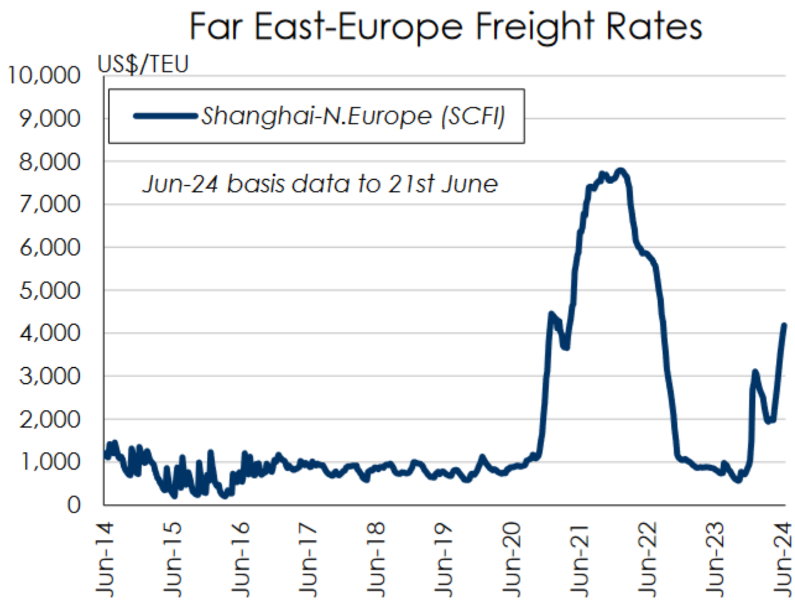
Exhibit 5.



Source: Clarksons Research, 2024

- Container imbalance: While there was a shortage of containers at the height of the pandemic, the global economy is now facing the opposite problem: too many containers. This is because the demand for container shipping has declined as consumer spending has slowed down inline with GDP declining (see Exhibit 5) and retailers have accumulated enough inventory. As a result, container depots, which are used to store containers after they are unloaded, are now filling up or full, leaving no space for new containers. This creates a challenge for container owners and operators, who have to manage the excess supply and find ways to reposition the containers to where they are needed. Some ports, such as the Port of Houston, have started to levy fees for empty containers sitting in terminals for too long, to encourage faster movement and free up space.

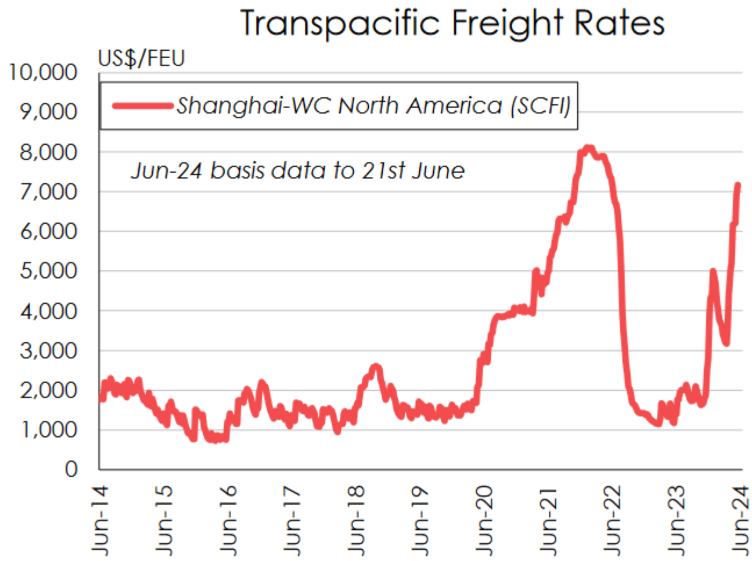
Exhibit 6.



Source: Xeneta Shipping Index by Compass, Clarksons Research, 2024

- Freight rates volatility: The imbalance between supply and demand, coupled with the port congestion and container shortage, has led to unprecedented volatility in freight rates, which are the prices charged by carriers to transport goods by sea. Freight rates have soared to record highs in 2021, reaching more than $20,000 per FEU on some routes, such as from China to the US West Coast (see Exhibit 7). This has increased the cost of shipping for importers and exporters, and ultimately for consumers. However, freight rates have also shown signs of weakening in recent weeks, as demand has softened, and carriers have increased their capacity by deploying more ships and containers. The freight rates are expected to remain volatile and unpredictable in the near future, as the market conditions and supply chain disruptions continue to change.

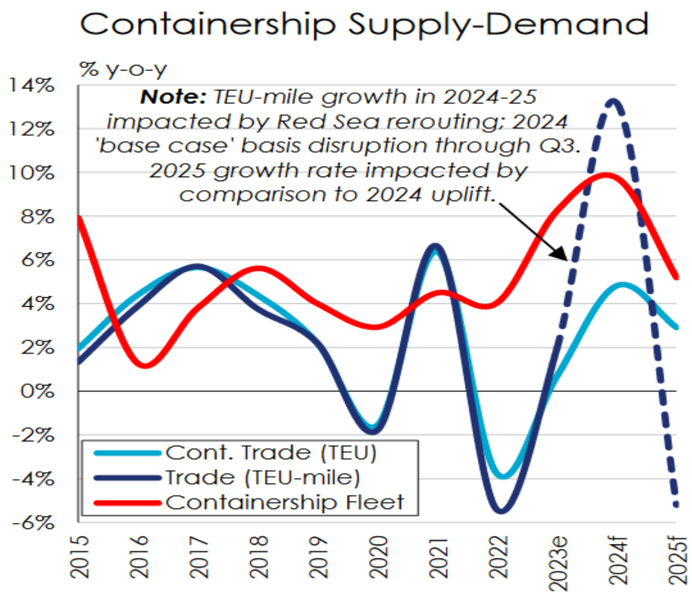
Exhibit 7.



Source: SCFI, Shanghai Shipping Exchange, 2024.

- Assets Utilisation and Optimalisations: Liner Container Shipping companies were caught off guard when they see the declining demand for cargoes caused by the early period of Covid-19. Where restriction in mobility were in place, sharp drop in demand from Y2019 to Y2020 causing many companies imposing cost cutting measures such as: slow steaming, blank sailing and to the extreme even scrapping vessels to recover some of their book values. However situation further caught the Liner off guard when the trade bounce back in end 2020 until 2021 causing shortage of vessel space situations (as can be seen in Exhibit 8).

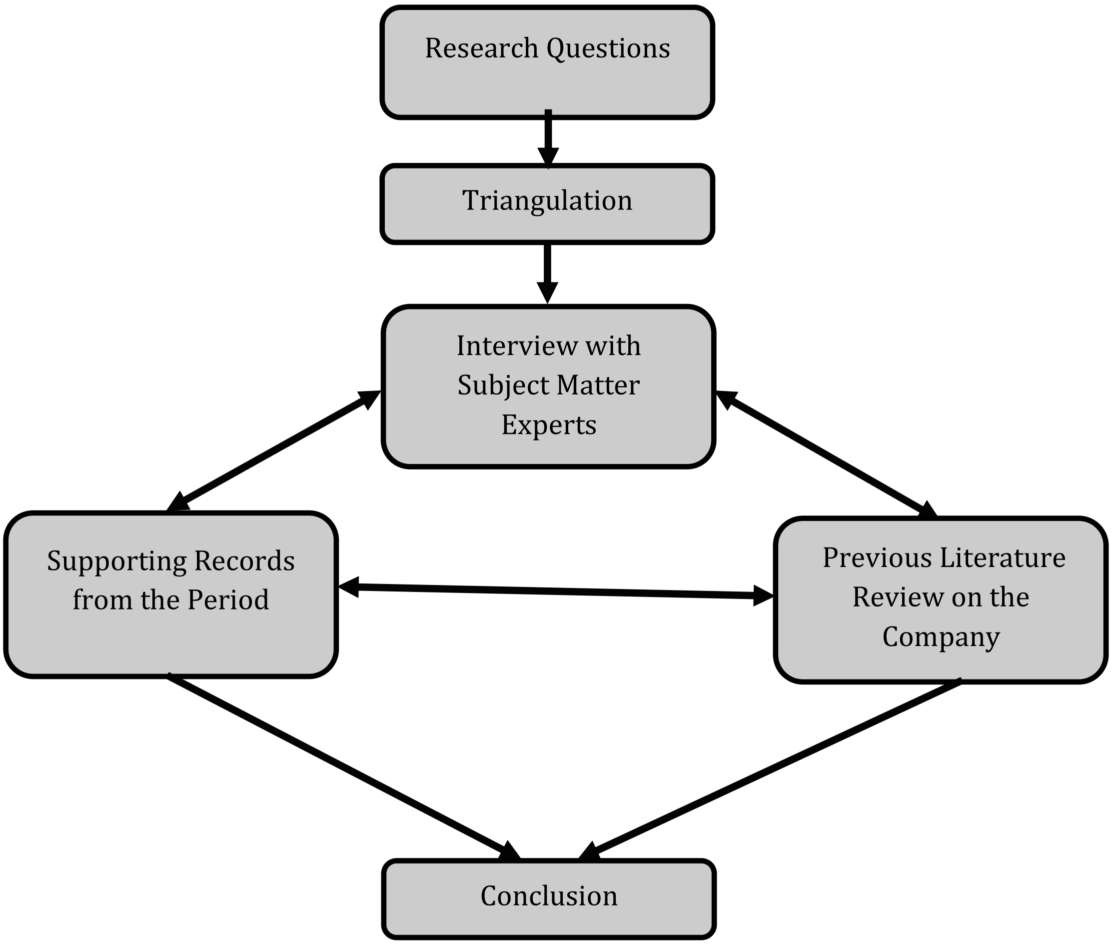
Exhibit 8



Source: Clarksons Research, 2024

- Environmental regulations: The global container shipping industry also faces increasing environmental regulations, such as the International Maritime Organization (IMO) 2020 rule that required ships to use low-sulphur fuel or install scrubbers to reduce emissions. This increased the operational costs and uncertainty for the carriers, as they had to adjust to the new fuel standards and prices. Moreover, the industry is preparing for the IMO 2030 and 2050 targets, which aim to reduce the carbon intensity and greenhouse gas emissions of shipping by 40% and 50%, respectively, compared to 2008 levels. This will require the industry to invest in new technologies, such as alternative fuels, energy efficiency measures, and digitalization. The industry is also facing pressure from other stakeholders, such as governments, customers, and investors, to adopt more sustainable practices and disclose their environmental performance.

WORKFLOW DIAGRAM



5. CONCLUSION AND RECOMMENDATIONS

In summary, the situation of the global container shipping industry is characterized by a high level of complexity, uncertainty, and volatility, as the industry is dealing with the aftermath of the pandemic and the ongoing supply chain crisis, as well as the environmental challenges and opportunities in the post-pandemic era. Some of the possible ways that the global container shipping industry can adapt and innovate to overcome the current challenges and seize the opportunities are:

- Optimizing Assets Composition and Utilisation: One of the main lessons learned from Pandemic situation is the importance of maintaining sizeable amounts of own assets (vessels and containers) which are combined with non-owned assets in order to have the flexibility to adjust capacities in response to market fluctuations. Liners must utilise the cash surplus during the period of 2021-2022 to invest in more economical, more efficient and more eco-friendly vessels enabling them to cope with new regulations and future demands.

- Digitalization and automation: The industry can leverage digital technologies, such as blockchain, artificial intelligence, internet of things, cloud computing, and big data, to improve the efficiency, transparency, security, and resilience of the container shipping processes and operations. For example, blockchain can enable the creation of a digital ledger that records and verifies the transactions and documents involved in the container shipping, such as bills of lading, customs clearance, and cargo tracking. This can reduce the administrative costs, errors, and fraud, and enhance the trust and collaboration among the stakeholders. Artificial intelligence can help optimize the routing, scheduling, and pricing of the container shipping, as well as provide predictive analytics and insights for the carriers and customers. Internet of things can enable the real-time monitoring and control of the container conditions, such as temperature, humidity, and location, and alert the stakeholders in case of any anomalies or risks. Cloud computing and big data can provide the infrastructure and platform for storing, processing, and sharing the large amount of data generated by the container shipping, and enable the integration and interoperability of the different systems and applications involved. Automation can also reduce the human intervention and errors, and increase the safety and productivity of the container shipping, such as by using autonomous ships, robots, and drones for the loading, unloading, and delivery of the containers.

- Collaboration and consolidation: The industry can also enhance the collaboration and consolidation among the different players in the container shipping, such as the carriers, ports, terminals, shippers, freight forwarders, and regulators, to achieve better coordination, alignment, and synergy. For example, the carriers can form alliances or mergers to share their resources, such as ships, containers, and terminals, and increase their bargaining power and market share. The ports and terminals can also cooperate and integrate their operations, such as by using common standards, platforms, and protocols, and streamline their processes, such as by implementing a single window system for the clearance and inspection of the containers. The shippers and freight forwarders can also collaborate and consolidate their demand and supply, such as by using digital platforms and marketplaces, and negotiate better rates and services with the carriers. The regulators can also harmonize and simplify their rules and requirements, such as by adopting international conventions and agreements, and facilitate the cross-border trade and movement of the containers.

- Innovation and diversification: The industry can also pursue innovation and diversification in the container shipping, such as by developing new products, services, models, and markets, to meet the changing needs and preferences of the customers and society. For example, the industry can explore new types of containers, such as modular, smart, and green containers, that can offer more flexibility, functionality, and sustainability. The industry can also offer new services, such as value-added services, customized services, and end-to-end solutions, that can provide more convenience, quality, and reliability. The industry can also adopt new models, such as circular economy, sharing economy, and platform economy, that can optimize the utilization, reuse, and exchange of the containers and other resources. The industry can also enter new markets, such as emerging markets, niche markets, and online markets, that can offer more growth potential and opportunities.

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CHAPTER 3

Financial Performance Assesment Using Altman Z-Score Model After Implementation Cigarette Excise Tax of PT HM Sampoerna

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ABSTRACT

The Indonesian tobacco industry contributes financially to the nation's security through the excise tax on tobacco products. The revenue generated from this excise is essential to finance government programmes and support national development. However, the financial performance of cigarette companies is experiencing challenges due to implementation of the excise policy. This study aims to asses the financial performance of PT HM Sampoerna using Altman Z-Score method in order to evaluate liquidity, profitability, and other Financial Performance that shows the healthiness of the company. The Altman Score analysis revealed a significant factor in the implementation of the excise policy by the company. The analysis showed substantial declines in liquidity (X1), retained earnings (X2), and operational efficiency (X3). Market confidence (X4) experienced a sharp declining in 2020, although there was a slight increase in 2022. In addition to this the company will implement a strategy that will result in a stabilisation of the signs and a significant increase in production during the year 2022, which will be important to the company in generating sales (X5). Continous monitoring and strategic adaptation are essential to maintain financial stability and mitigate the impact of regulatory changes. The objective of this study is to predict corporate bankruptcy, analyze financial reports and financial health analysis ratios that contribute to corporate bankruptcy, and help the process of decision-making regarding the company's strategy development in the future.
Keywords: Tobacco excise, Financial performance, Altman Z-score.

INTRODUCTION

1. HISTORY OF TOBACCO

Tobacco was introduced to indonesia by Portuguese traders in the 17th century. The Dutch colonialists then developed tobacco plantation in Banten and Deli. Kretek, a cigarette made from tobacco and cloves, was invented in Central Java in 19th century. The kretek industry flourished with major factories like Tjap Bal Tiga by Nitisemito in the early 1900s. Despite a declining during japanese occupation, it revived post-independence, evolving with machine production in the 1970s and the introduction of mild kretek in 1990s. (Purnomo, 2020)

1.1 HM Sampoerna Company Profile

PT. HM Sampoerna was founded in 1913 by Liem Seeng Tee in Surabaya, started as a small home industry. The business grow significantly, producing hand-rolled kretek cigarettes. In the 1970s HM Sampoerna became major player in the kretek market introducing machine-rolled cigarettes and pioneering the popular mild kretek mild segment in the 1990s and known for brands like Dji Sam Soe and Sampoerna A. In 2005, Philip Morris International (PMI) acquired a majority stakeholders in Sampoerna, integrating it into PMI’s global network. (Perdana, 2020)

1.2 Tobacco Industry in Indonesia

The tobacco industry in Indonesia has long been cornerstone of the national economy, not only for its substantial revenue contributions but also for its extensive role in employment and related industries. Tobacco Excise, known locally as Cukai Hasil Tembakau (CHT), is a primary source of state revenue managed through the state budget (Anggaran Pendapatan dan Belanja Negara, APBN). This revenue stream is critical for funding government programs, public services, and development projects across Indonesia, thereby playing a strategic role in the nation’s socio-economic growth. (Firmansyah, 2022)

The economic impact of Tobacco Excise (Cukai Hasil Tembakau, CHT) is significant. Over the past decade, the average increase in cigarette excise rates has shown considerable fluctuation. From 2012 until 2022, the excise rates have varied markedly, with a notable peak increase of 23% in 2020. This fluctuation is indicative of the government’s ongoing efforts to regulate tobacco consumption while maximazing fiscal benefits. During this period, the revenue from cigarette excise consistently grew, starting at approximately 80 trillions rupiahs in 2012 and surpassing 200 trillions rupiahs by 2022. This consistent growth reflects both the increasing excise rates and the sustained demand for tobacco products. (Putri, 2023)

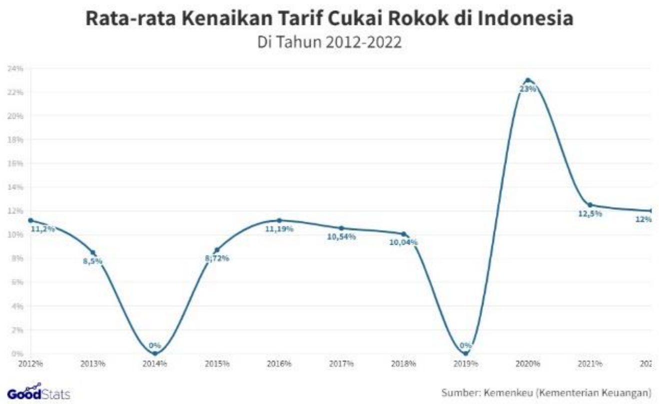

Figure 1 : Average cigarette excise tax increase in Indonesia 2012-2022
Source : goodstats.id, 2022

Figure 1 shows the average annual increase in cigarette excise rates in Indonesia from 2012-2022. Significant fluctuations including a peak increase of 23% in 2020, reflect the government's efforts to control tobacco consumption through the fiscal measures. These changes directly impact the financial performance of tobacco companies.

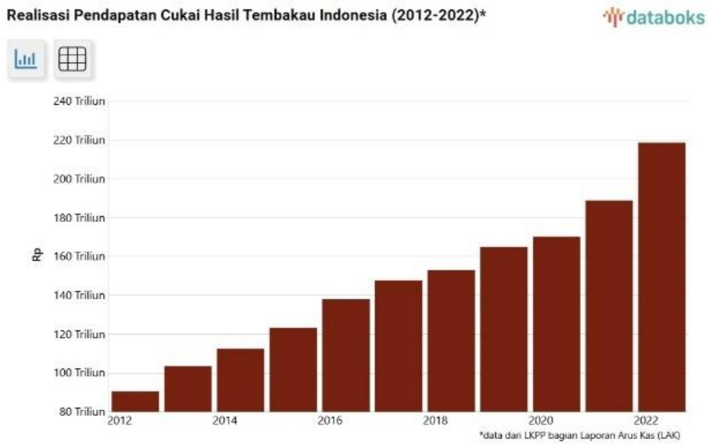

Figure 2 : Tobacco excise revenue realisation in Indonesia (2012-2022)
Source : databoks.co.id, 2023

Figure 2 shows the realization of tobacco excise revenue in Indonesia from 2012 to 2022. The steady increase in revenue highlights the effectiveness of excise policies in generating substantial state income. The revenue grew from approximately 80 trillion rupiahs in 2012 to over 200 trillion rupiahs in 2022, indicating significant fiscal contributions from the tobacco industry despite regulatory changes.

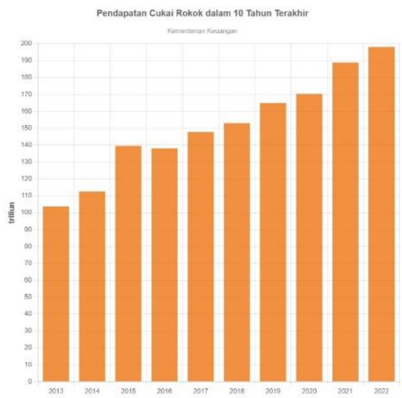

Figure 3 : Cigarette excise revenue in the last ten years (2013-2022)
Source : Goodstats, 2023

Figure 3 shows the tobacco excise revenue over the last ten years, from 2013 to 2022. The graph illustrates a general upward trend in revenue, reflecting the government's continuous efforts to increase excise rates and the corresponding rise in state income. The revenue reached its peak in 2022, exceeding 190 trillion rupiahs. This trend underscores the significant role of tobacco excise in national revenue and the financial impact on the tobacco industry.

Tabel 1 : Revenue and Gross Profit HM Sampoerna 2017-2023 in Million USD

Year	Revenue	Gross Profit
2017	7,314	1,787
2018	7,371	1,760
2019	7,629	1,879
2020	6,648	1,350
2021	6,925	1,185
2022	7,133	1,100
2023	7,512	1,252

Source : Stockbit, 2024

Tabel 1 shows the revenue and gross profit from 2017 to 2023. Despite fluctuations in revenue, gross profit has generally declined over this period. There was a significant drop in both revenue and gross profit in 2020, coinciding with a peak excise rate increase of 23%. The trend reflects the financial pressures faced by company due to increasing excise rates and the broader economic impacts of regulatory changes.

2. LITERATURE REVIEW

According to the insitute of Indonesia Chartered Accountants (Ikatan Akuntan Indonesia, 2015), the definition of financial statements in Financial Accounting Standards is a structured presentation of an entity's financial position and financial performance (Harahap, 2009). A balance sheet, income statement, and cash flow statement are all common components of financial statements. Financial Statement analysis has traditionalls been performed using a set of ratios to highlights the relative performance of a firm as compared to its industry (Daryanto, 2021).

A financial ratios is a relationship between two numbers drawn from the organization's balance sheet, operating statement, and related records. According to Analysis of a ratio such as tuition revenues to instructional expenditures provides a better understanding of the financial condition and institutional priorities than either of these data standing alone (Chabotar, 1989).

Financial distress refers to a situation where a company faces difficulties in meeting its financial obligantions, which can lead to bankruptcy if not addressed effectively. The Altman Z-Score model is a well known tool used to predict the likehood of a company entering financial distress within the next two years (Altman, 1968). The financial health of tobacco companies, particularly during periods of regulatory changes, is a crucial area interest. PT HM Sampoerna as one of Indonesia's leading tobacco companies, has been significantly impacted by these policies. The stage of decline in financial conditions that occurred before the bankruptcy or liquidation. The condition of financial distress experienced by a company is described by the company's inability or an unavailability of funds to pay its maturing obligations (Kurniawan, 2022).

Corporate financial failure is the inability of a company to pay financial obligations at maturity that lead to bankruptcy. A company is declared bankrupt if the company is fails to carry out business operations to achieve its goal. The main conditions to declare bankruptcy is when finding this situation which is a debtor having two or more creditors and failing to pay at least one debt which has matured and became payable shall be declared bankrupt through a court decision, either at his petition or at the request of one of more of his creditors. Various bankruptcy analysis models have been developed to predict early corporate bankruptcy, such as the Altman Z-Score model developed in 1968 by Edward I. Altman. The analysis model uses the variables financial ratios contained in the finance statements to predict bankruptcy company. This model is particularly useful for manufacturing firms but has been adapted for others industries over time. By calculating the Z-Score for each year, the study aims to predict potential financial distress and provide a comprehensive overview of the company's financial stability (Marpaung, 2021).

Despite the economic advantages, the government excise policies primarily aim to curb tobacco consumption due to its adverse health impacts. Annually, the government adjusts excise rates and retail prices to deter smoking. These measures are part of broader public health strategies to reduce the prevalance of smoking related illnesses. However, the effectiveness of theses policies in significantly reducing consumption remains a challenge. Various socio-economic factors, and the addictive nature of tobacco contribute to the complexity of this issue.

Tabel 2 : Finance Minister Regulation (2017-2022)

PMK Number	Objective	Implementation Date
PMK No. 146/2017	Set tobacco excise tariffs to control consumption, increase state revenue ensure policy consistency, and simplify collection and monitoring.	January 1, 2018
PMK No. 156/2018	Update and Refine PMK No. 146/2017 to reflect changes and legal needs in tobacco excise tarrifs.	January 2, 2019
PMK No. 152/2019	Serve as a second amendment to PMK No. 146/2017, focusing on refining excise tarrifs based on evolving legal requirements and market needs.	October 21, 2019
PMK No. 198/2020	Revise PMK No.146/2017 to update excise tarrifs in the line with new fiscal policies and market condition.	February 1, 2021
PMK No. 192/2021	Continue the updates, adapting the excise tarrifs to the latest legal and market developments.	January 1, 2022
PMK No. 109/2022	Further ammend PMK No 192/2021 to refine excise tarrifs on cigarettes, cigars, leaf cigarettes, and shredded tobacco to allign with current needs.	July 4, 2022

Source : (Peraturan Menteri Keuangan, 2017), (2018), (2019), (2020), (2021), (2022)

Tabel 2 shows the various Finance Minister Regulations regarding tobacco excise from 2017 to 2022. Each regulation outlines objectives and implementation dates, reflecting the government's efforts to update and refine excise tariffs to meet evolving fiscal policies, market conditions, and legal requirements.

2.1 Research Methodology

The methodology focuses on the collection of data, the application of the Altman Z-Score model, and the interpretation of the results in order to gain insight into the company's financial stability and potential risk of bankruptcy. The data used in this research consists of the financial statements of PT HM Sampoerna covering the period from 2018 to 2022. The financial statements include the balance sheet, income statement, and cash flow statement. These documents provide the requisite financial ratios and metrics for the calculation of the Altman Z-Score.

The Altman Z-Score model is a predictive model created by Edward I. Altman in 1968 to forecast the likelihood of a company entering financial distress within the next two years. The Z-Score formula incorporates five financial ratios that measure different aspects of a company's financial health :

$$\boldsymbol{Z} = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$$

Where :
X1 : Working Capital / Total Assets
X2 : Retained Earnings / Total Assets
X3 : Earnings Before Interest and Taxes (EBIT) / Total Assets
X4 : market Value of Equity / Book Value of Total Liabilities
X5 : Sales / Total Assets

1. **Working Capital / Total Assets (*X1*) :** This ratio measures the net liquid assets of a firm relative to the total capitalization calculated as Current Assets minus Current Liabilities. It indicates the firm's efficiency in using its assets to cover short-term liabilities.
   Total Assets : This includes all the assets owned by the firm, both current and non-current.

   $$X_1 = \frac{\text{Current Assets} - \text{Current Liabilities}}{\text{Total Assets}}$$

   Interpretation : A higher ratio indicates better liquidity and a stronger ability to cover short term obligations.

2. **Retained Earnings / Total Assets (*X2*) :** This ratio indicates the cumulative profitability of the firm over time and its ability to reinvest profits. Its reflects the firm's age and its earning power.
   Total Assets : Same as used in X_1

   $$X_2 = \frac{\text{Retained Earnings}}{\text{Total Assets}}$$

   Interpretation : A higher ratio indicates a more mature company with a history of profitability and reinvestment of earnings.

3. **EBIT / Total Assets (*X3*) :** This profitability ratio measures how effectively a firm can generate profits of its assets. Its shows the firm's operating efficiency.

Total Assets : Same as used in X_1

$$X_3 = \frac{\text{Retained Earnings}}{\text{Total Assets}}$$

Interpretation : This ratios measures the firm's operationg efficiency and profitability. A Higher ratio indicates better utilization of assets to generate earnings.

4. **Market Value of Equity / Book Value of Total Liabilities (*X4*) :** This leverage ratios assesses the firm's solvency by comparing the market value of its equity to its total liabilities. It indicates the firm's market confidence and risk solvency.

   Market Value of Equity : This is calculated as the stock price multiplied by the number of outstanding shares. It represents the current value of the company's equity as perceived by market.

   Book Value of Total Liabilities : This includes all liabilities (both current and long-term) as recorded on the balance sheet.

$$X_4 = \frac{\text{Market Value of Equity}}{\text{Total Liabilities}}$$

   Interpretation : A higher ratio indicates a stronger equity position relative to liabilities, suggesting lower financial risk.

5. **Sales / Total Assets (*X5*) :** This ratio measures the firm's ability to generate sales from its assets. Its refflects the efficiency of asset utilization.

   Sales : This represents the total revenue generated by the company during a specific period.

   Total Assets : Same as used in X_1

$$X_4 = \frac{\text{Sales}}{\text{Total Sales}}$$

   Interpretation : This ratios measures the company's ability to generate revenue from its asset base. A higher ratios indicates better efficiency in using assets to produce sales.

Application of the Z-Score

The Z-Score is calculated by substituting the values of the financial ratios into the Altman formula. The resulting score places the firm into one of three zones :

Safe Zone (Z > 2.99) : The company is financially sound with a low risk of bankruptcy.
Grey Zone (Z1.81 < Z <2.99) : The company is at some risk of financial distress.
Distress Zone (Z < 1.81) : The company is at a high risk of bankruptcy.

The calculated Z-Score for each year from 2018-2022 are analyzed to indentify trends in PT HM Sampoerna's financial health. A consistent trend towards the Grey or Distress Zone would indicate increasing financial risk, while scores in the Safe Zone would suggest financial stability.

Tabel 3 : Altman Z Score PT HM Sampoerna for the years 2018-2022

Year	X1	X2	X3	X4	X5	Z-Score
2018	0.62	0.29	0.39	5.97	2.29	3.59
2019	0.57	0.28	0.36	2.23	2.08	3.29
2020	0.49	0.17	0.22	1.25	1.94	2.82
2021	0.36	0.14	0.17	6.71	1.86	2.53
2022	0.31	0.12	0.15	5.72	2.03	2.61

Source : Z-Score Calculation & Data processed by the author, 2024

Tabel 3 shows the Altman Z-Score and its components for PT HM Sampoerna from 2018 to 2022. Following is the calculation of Z-Score :

Z-Score : 3.59 : Indicates strong financial health and low risk of bankruptcy. The high X_1 ratio (0.62) suggests strong liquidity, and X_2 (0.29) reflects solid retained earnings. The operational efficiency (X_3:0.39) and market confidence (X_4: 5.97) were also strong contributing the overall financial stability.

Z-Score : 3.29 : The Z-Score dropped slightly to 3.29, still indicating a healthy financial state but showing signs of slight weakening. The decline in X_1 (0.57) and X_2 (0.28) suggests reduced liquidity and retained earnings. This significant drop in X_4 (2.23) indicates reduced market confidence, likely due to regulatory changes affecting the industry

Z-Score : 2.82 : A more substantial decline in the Z-Score to 2.82 reflects increased financial pressure. The reduction in X_1 (0.49) and X_2 (0.17) highlights challenges in maintaining liquidity and profitability. The drop iin X_4 (1.25) shows continue loss of market confidence, while X_3 (0.22) indicates declining operational efficiency.

Z-Score : 2.53 : The Z-Score further decrease to 2.53, suggesting heightened financial strain. The continued decline in X_1 (0.31) and X_2 (0.14) reflects ongoing issues with liquidity and profitability. Despite these challenges, X_4 (6.71) saw significant increase, suggesting a temporary boost in market confidence or valuation adjustments. The operational efficiency (X_3:0.17) remainded low.

Z-Score : 2.61 : The Z-Score slightly improved to 2.61. Indicating some stabilization. The further decrease in X1 (0.31) and X2 (0.12) shows persistent issues with liquidity and retained earnings. However, the relatively high X4 (5.72) and recovery in X5 (2.03) suggest improved market confidence and sales efficiency, contributing to the slight recovery in the overall Z-Score.

3. RESULT AND DISCUSSION

X1 Analysis : Trend decrease from 0.62 in 2018 to 0.31 in 2022. The decline indicates a reduction in liquidity, suggesting that the company has less short-term assets relative to its total assets. This could be due to increased short-term liabilities or a decrease in current assets, impacting the company's ability to cover short-term obligations.

X2 Analysis : Trend dropped from 0.29 in 2018 to 0.12 in 2022. The decrease in this ratio reflects diminishing retained earnings compared to total assets, indicating lower cumulative profitability. This could result from increased dividend payouts or accumulated losses over the period.

X3 Analysis : Trend decreased from 0.39 in 2018 to 0.15 in 2022. A lower EBIT relative to total assets suggests reduced operational efficiency and profitability. This decline could be attributed to higher operating expenses or reduced revenues, impacting the company's earnings before interest and taxes.

X4 Analysis : Trend fluctuated significantly, with a low of 1.25 in 2020 and a high of 6.71 in 2021. This ratio indicates market confidence and solvency. The significant fluctuations suggest volatility in the company's market valuation relative to its liabilities. A low ratio in 2020 could indicate decreased market confidence or increased liabilities, while the spike in 2021 could reflect a recovery in market valuation or a reduction in liabilities.

X5 Analysis : Trend varied slightly, ending at 2.03 in 2022 from 2.29 in 2018. This ratio measures sales efficiency. The slight variations indicate relatively stable sales efficiency compared to total assets, although the overall trend shows a slight decline, suggesting potential challenges in maintaining sales performance relative to the asset base.

Figure 4 : X1 Trend 2018-2022

Source : Z-Score Calculation & Data processed by the author, 2024

Figure 4 shows The ratio consistently declined from 0.62 in 2018 to 0.31 in 2022, reflecting reduced liquidity over the years.

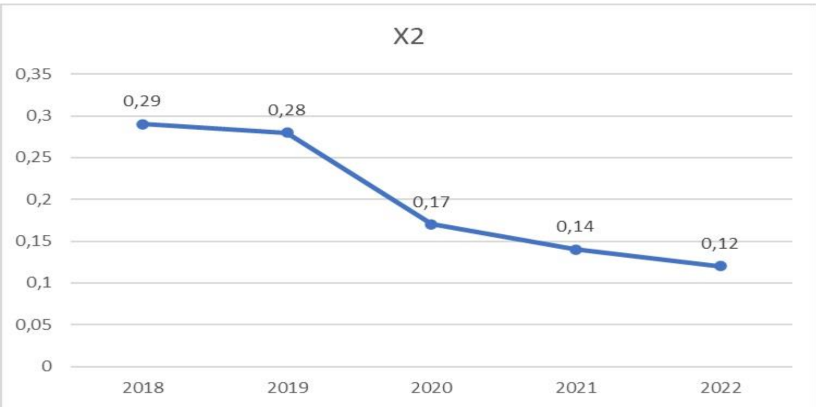

Figure 5 : X2 Trend 2018-2022

Figure 5 shows a significant decrease from 0.29 in 2018 to 0.12 in 2022, indicating challenges in retained earnings and maintaining profitability.

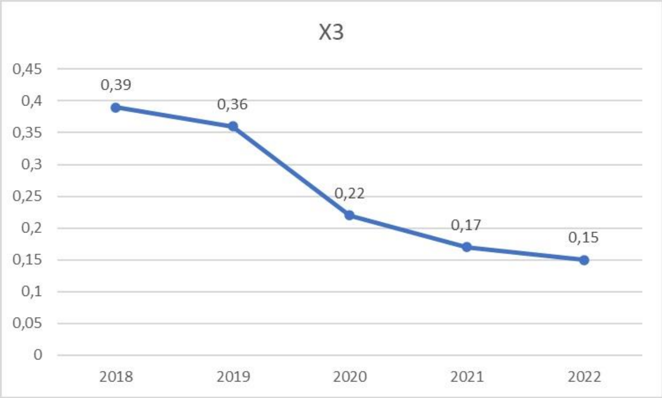

Figure 6 : X3 Trend 2018-2022

Figure 6 shows the ratio dropped from 0.39 in 2018 to 0.15 in 2022, highlighting declining operational efficiency.

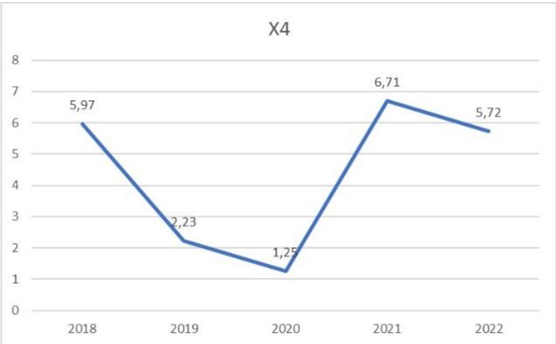

Figure 7 : X4 Trend 2018-2022

Figure 7 shows Although this ratio dropped significantly from 5.97 in 2018 to 1.25 in 2020, it showed recovery in 2021 (6.71) and 2022 (5.72), indicating fluctutating market confidence.

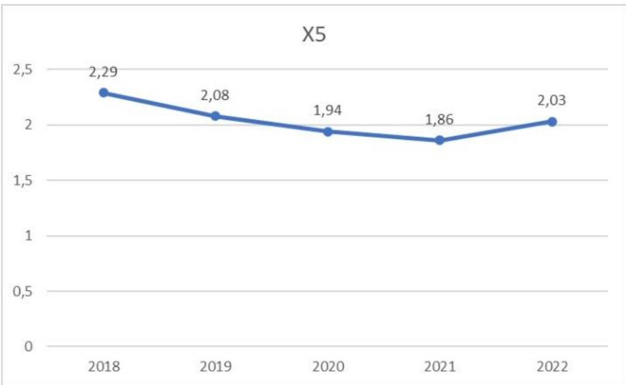

Figure 8 : X5 Trend 2018-2022

Figure 8 shows the ratio decreased from 2.29 ini 2018to 1.86 in 2021, but improved to 2.03 in 2022, reflecting recovery in sales effciency.

DISCUSSION

The declining Z-Score for PT HM Sampoerna indicates increasing financial distress over the period from 2018-2022. This trend can be correlated with the implementation of excise policies, such as PMK No.146/2017, which introduced higher excise tariffs on tobacco products. The increasing excise rates likely pressured the company's financial performance, as evidenced by the declining liquidity (X1), Cumulative profitability (X2), and operational efficiency (X3).

The fluctuations in the market value of equity (X4) suggest periods of volatility in investor confidence, potentially influenced by regulatory changes and market conditions. The slight decline in sales effciency (X5) furhter highlights the challenges faced by PT HM Sampoerna in maintaining robust sales performance admidst rising operational costs due to higher excise duties. Overall the findings indicate that the implementation of excise policies that had had a noticeable impact on PT HM Sampoerna's financial health, highlighting the need for strategic adjusments to mitigate financial risks and enhance operational efficiency. The company may need to explore cost optimization strategies, dicersity its product portfolio, and enhance operational efficiencies to counteract the adverse effects of excise policy changes.

CONCLUSION

Based on th Altman Z-Score analysis for PT. HM Sampoerna from 2018 to 2022, we can conclude the following :

Safe Zone (Z > 2.99) : The company is financially sound with a low risk of bankruptcy.

Grey Zone (Z1.81 < Z <2.99) : The company is at some risk of financial distress.

Distress Zone (Z < 1.81) : The company is at a high risk of bankruptcy.

Z-Score Analysis :

2018 : Z-Score : 3.59 (Safe Zone)

2019 : Z-Score : 3.29 (Safe Zone)

2020 : Z-Score : 2.82 (Grey Zone)

2021 : Z-Score : 2.53 (Grey Zone)

2022 : Z-Score : 2.61 (Grey Zone)

The Altman Z-Score analysis reveals a declining trend in PT HM Sampoerna's financial health from 2018-2022. The compant moved from a Safe Zone in 2018 and 2019 to a Grey Zone from 2020 onwards. This indicates a transition from a strong financial position to an increased risk of financial distress, particularly influenced by the implementation of higher excise tariffs and challenging market conditions.

Figure 9 : Z-Score 2018-2022

Figure 9 shows the Z-Score analysis for PT HM Sampoerna from 2018-2022 shows a clear declining trend in financial health, driven by challenges in liquidity, profitability, and market confidence. The implementation of excise policies likely contributed to these financial pressures. Despite these challenges, the company's Z-Score remained above the distress threshold throughout the period, indicating resilience and the ability to adapt to regulatory changes.

Recommendations

1. **Monitor Financial Health** : Continously monitor financial ratios and Z-Score to identify early signs of financial distress.
2. **Improve Liquidity** : Focus on strategies to enhance liquidity, such as optimizing working capital and managing short-term liabilities.
3. **Enhance Profitability** : Implement cost control measures and improve operational efficiency to boost profitability and retained earnings.
4. **Rebuild Market Confidence** : Engage in transparent communication with stakeholders to rebuild market confidence and stabilize equity valuations.
5. **Adapt to regulatory Changes** : Develop strategic plans to adapt to regulatory changes. Mitigating their impact on financial health.

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CHAPTER 4

Behavioral Differences Between Employees (Public vs Private Firm)

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ABSTRACT

This paper is to determine the correlation between individual behavior, job performance, and satisfaction in both private and public sector in Indonesia. Series of survey was conducted to determine whether or not employees in private sectors was deemed as more motivated than those employees from public sectors. It includes primary and secondary dimensions of individual characteristics (age, education, gender), POLC, cross-cultural awareness, and also about multiple intelligences of individuals (Cherry, 2023). These factors were taken into account for individual competence in satisfaction, productivity, and performances within their sectors. In addition, it can be taken into account that their personalities can have a tremendous effect on their tendency to commit inefficiency in markets, in internationally and domestically. Though there are differences, such as; gender, age, and experience, an individual is working based on his or her background and personality. The assumptions have been "lazy", "incompetent", "lack of integrity", and many more (Handler, 2014) in comparison to confluence of nature and nurture of an individual (Gerrig & Zimbardo, 2002; Roy, 2012). The individual's background is provided to guide the managerial abilities, such as; planning, leading, controlling, and organizing. This affects his or her ability to conduct and be aware of different cultures. The kind combination of background and personality, including the upbringing, are influencing his or her ability to conduct inefficiency in market worldwide. It is found that the respondents' characteristics showed the majority on leading characters, a higher number for cross-cultural (religion, blood type and numbers of cars), a much smaller number for respondents' characteristics. The value of this research is about their employ-ability, in particularly the presence in planning, organizing, leading, and controlling, but it also includes cross-cultural, and multiple intelligences among the employment.

Keywords: Employees; Public Employee; Private Employee; POLC, Cross-Cultural, Multiple Intelligence.

1. Introduction

Organizations are managed in different ways. These are not just the retailers, or boutiques, or manufacturers, those organizations are likely to be operated in difference methods. Not only from the way they do their operational activities, but also the way they do their sales, research, accounting, and financial recording. Organizations in both public sector and private sectors, are likely to operate differently (Baarspul, 2009; Aguiar do Monte, 2017). Human behavior itself is considered complex and every individual is difference from one another (Gupta, 2010) by implication and assumption, the attitudes and behaviors of the individuals in both private and public sectors are contrasted thereby making everyone within an organization distinguishably different from one another (Baarspul, 2009). Though this may be true, people in general are different yet have similar characteristics. This can be seen based on an individual's background that includes their income, work status, and personalities. In other words, it is important to understand one's behavior in an organization.

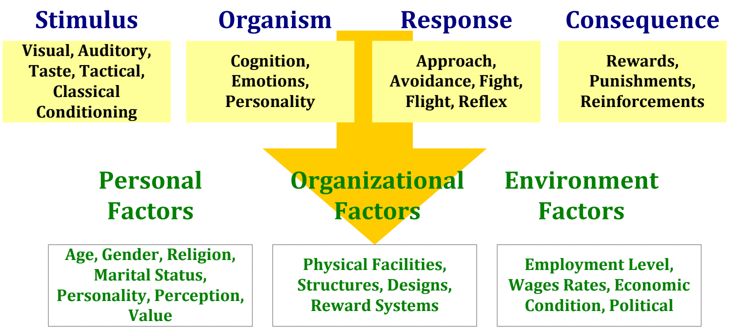
Behavior can be defined as the confluence of nature and nurture of an individual which are formed and influenced their actions and mannerisms in society (Gerrig & Zimbardo, 2002; Roy, 2012). According to Gupta (2010), there are seven factors that influence an individual behavior; abilities, gender, race, perception, attribution, attitude, and personality. All of these contributing factors will form and influence an individual's behavior which therefore will be instrumental to its organizational behavior which inevitably can affect their level of productivity within an organization regardless of whether the individual belongs to the private or public sectors. Environment and the surroundings of an individual within an organization plays a key role in shaping their behavior, hence, everything from an individual behavior to an organizational behavior is a mere cycle.

The key issue is to analyze whether employees, who are working in private companies/sectors provide more exertion and therefore are more productive than those workers who are working for the government. If this may be the case, investigation is needed to support this hypothesis if the reason for this assumption is due to unobservable factors such as their background, income, gender, and personality. The focus of this research is to find out the reason why employees' individual behaviors of both private and public sectors have such a profound affect in their ability to be productive at their respective workplace.

2. Literature review and hypotheses developments

Organization Behavior (OB) can be defined as the study and action of human behavior within an organization, the common boundary between human behavior and the organization itself (Griffin & Moorhead, 2014). Organizations have huge influences in our live, hence, it is important to understand how and why an organization functions and how human behavior within an organization can affect the organization as a whole. The value of organizational behavior is that "*it isolates important aspects of manager's job and offers specific perspectives on the human side of management: people as organizations, people as resources and people as people*" (Griffin & Moorhead, 2014). Due to the constant changes of demographics, an increase in globalization, and an increase in advancement in technology, changes in the workplace—especially changes in diversity—must be present.

Figure 1: Observational Study on Stimulus



Source: (Bolders, Tops, Band, & Stallen, 2022; Commerce Mates, 2023; Cornell, 2023; Roy, 2012)

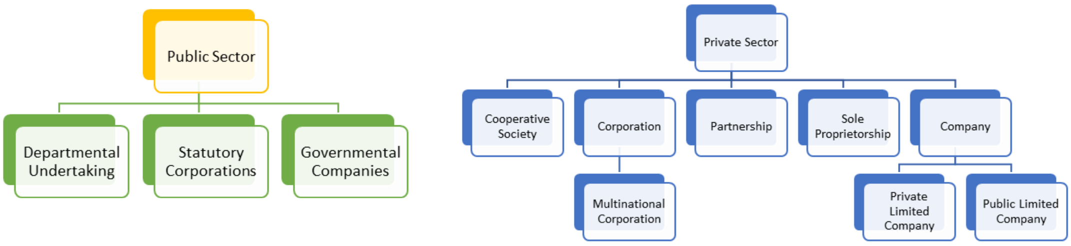
Individual behavior on the other hand can be define as a combination of responses to external and internal stimuli (Bolders, Tops, Band, & Stallen, 2022; Commerce Mates, 2023; Cornell, 2023; Roy, 2012). According to Gupta (2010), the challenges that managers have to face to ensure an effective organization is giving out the right tasks to the right people based on the individual's behavior (Expert Panel, 2021; Herrity, 2023). Furthermore, individual behavior itself is formed and influenced by many factors and in addition, an individual behavior is always evolving based on personal experiences (Thomas, 2014; Cherry, 2023b; Henriques, 2022). In order to assign rightful tasks to the right people, Gupta (2010) and Griffin and Moorhead (2014) believed that by understanding organizational and individual behavior, it will play a vital role in managerial task because "*under ideal situation, the managers would first analyze the tasks then determine the required skills and assemble a team that complement each other skills*" which will inevitably result in "*creating an enriching and conflict free team.*"

2.1. Differences and Similarities in Public and Private Sectors

Motivation is defined as "*the set of forces that causes people to engage in one behavior rather than some alternative behavior*" (Griffin & Moorhead, 2014). Individuals most likely have personal reasons as to why they join either the public or private sectors for their employment whether it is because of the salaries, benefits, pension, work conditions, and many more.

According to Chaturvedi, et al (2021), Mares (2013), and Wood (2021), many people join private sector organizations with the expectation and hope that they will have an opportunity either to earn significant amounts of money or to be trained such that the opportunity to earn significant amounts of money could occur in a later job. Most individuals who decided to apply for governmental jobs have several of reasons for doing so such as providing for others (e.g. family members) and/or believed that having a governmental job is equivalent as having more power and thereby having more responsibilities to uphold than organizations in the private sector (Mares, 2013; Chaturvedi, et al., 2021; Wood, 2021). Hence, managing these two dramatically differently motivated groups is significantly different for each group. The main difference between a public sector and private sector is the set of objectives they have (NewsDay, 2012; Murray, 2022). The main objective of those in private sectors is to maximize its profit - public sector's objectives are usually to achieve the "defined service level" or their purpose is to serve the citizen of the country (NewsDay, 2012; Surhbi, 2015; Murray, 2022). There is strong competition between many organizations within their industry within the private sectors (Pettinger, 2019). In the public sectors there are usually no competition that are taking place (Rehman, 2023).

Figure 2: Public vs Private Sector Organizations



Source: (Surhbi, 2015; Griffin & Moorhead, 2014)

Figure 1 (a) depicts a typical public sector organizational structure. Departmental undertaking is "*the oldest and traditional form of organizing public sector enterprises*" (Singh, 2012). The undertaking is under the direct control of a minister who is part of the Parliament (for instance, the Ministry of Foreign Affairs) (Singh, 2012). Statutory corporations on the other hand are a combination of both public ownership and accountability (Soni, 2012). Statutory corporations are of separated legal entity that are state controlled, hence, there might be little to no flexibility in operation since everything is set by the government. Governmental companies are companies in which the central or state government owns at least 51% or more than half of the share capitals (Jain, 2013). Figure 1 (b) depicts a traditional private sector organizational structure. There are 5 different kind of private sector companies; cooperative society, corporation/multinational corporations, partnership, sole proprietorship, and private/public limited companies (Surhbi, 2015; The Investopedia Team, 2022; Griffin & Moorhead, 2014).

Additionally, customers in public sectors are able to exchange information on suppliers more flexible than those from private sectors. This is due to many private firms' desires to maintain trade secrets on their own. An advantage of private sector is that customers have the ability to speed actions when required because of the flexibilities in procedures and regulations unlike those customers from public sectors that are often coming across roadblocks and constrains due to the inflexible laws and regulations that are established (NewsDay, 2012; Iakovou & White, 2022; Jacobson, 2015; Karttunen, Matela, Hallikas, & Immonen, 2022; D'Emidio, Malfara, & Neher, 2017; Henneberry, 2023)

Although there are several differences between what makes a public sector and public sector unique on their own, there are some interesting similarities between the two opposite sectors. According to Bojanala (2017), there are five similarities that both private and public sectors share with one another. For one thing, both private and public sectors are customer-oriented (Murray, 2022). For public sectors, it is very obvious to who their customers are. Their customers are those who are willing to agree to pay for their services and goods/products. As for public sectors, the customers are the citizens of the respective countries themselves. Both private and public value their respective customers because "*they evaluate/re-evaluate their efforts to ensure a high level of customer service*" and satisfaction (Bodawala, 2017; Murray, 2022).

The second similarity would be the fact that both private and public are open to changes that are happening in the world (Bodawala, 2017). With the constant changes in technologies that are currently happening, both private and public believed that their abilities of willingness to listen to new ideas and explore new possibilities can have a tremendous effect on how business are conducted. Thus, the willingness to be open to changes can inevitably impact the growth of the organizations within its industry and sectors.

The third similarity would be the opportunities for employee growth (Bodawala, 2017). This means that both private and public sectors must create an environment that provides opportunities for career growth for their respective employees. For example, assigning an employee on special assignments to gain experiences in other areas of interest. This can help lead to a change in job satisfaction and employee retention within the organization (Bodawala, 2017).

The fourth similarity would be executive support (Bodawala, 2017). According to Bojanala (2017), executive staffs in both private and public sectors are willing to provide support and motivation that the employees need to implement their innovative ideas in the organization. The fifth and final similarity is mentoring (Bodawala, 2017). According to Bojanala (2017), both employees from private and public sectors are willing "*to spend extra time to talk with you while sharing their experiences and additional information they have a guide you through to being the best that you can be.*" This is especially important when an individual is building their identity and relationship amongst other employees within the workplace.

Table 1: Comparison on Public vs. Private Sector

Comparison	Public Sector	Private Sector
Meaning	The section of a nation's economy, which is under the control of the government, whether it is central, state, or local	The section of a nation's economy, which is owned and controlled by private individuals or companies
Basic Objective	To serve the citizen of the respective country	Maximizing Profit
Earned Money From	Public revenues (such as; tax, duty, penalty)	Issuing shares and debentures, taking out loans, selling goods and services
Areas	Police, Army, Mining, Healthcare, Manufacturing, Electricity, Education, Transportation, Telecommunication, Agriculture, Banking, Insurance	Finance, Information Technology, Mining, Transportation, Education, Telecommunication, Manufacturing, Banking, Construction, Pharmaceutical
Benefits of Working	Job Security, Retirement Benefits, Allowances	Good Salary Package, Competitive Environment, Incentives
Basis of Promotion	Seniority	Merit

Job Stability	Yes	No

Source: (Surhbi, 2015; Griffin & Moorhead, 2014)

2.2. Employees Work Life Advantages and Disadvantages

For many individuals in Indonesia, the majority still preferred to become a civil servant employee as their primary choice of job to that of a private sector employee (Virmansyah, 2017). For many Indonesians, the many reasons why individuals chose to enter the public sector is that they desire to get a fixed income and a clear career path of promotion in their jobs. These factors may be the cause of their own desire or their parents' desires (Virmansyah, 2017).

Table 2: Advantages and Disadvantages of Working in Public Sectors in Indonesia

	Public	**Private**
Salary	Fixed, clear, adjusted The salaries of public sector Indonesia are almost the same with differences in incentives and benefits	Vary and negotiable depending on the experience, skills, degrees and performance
Pension Fund	Employees are guaranteed	Employees may not guarantee
Spare Time	Working for 5 days and up to 8 hours in a day	Even more than 5 days and 8 hours in a day
Career	Everyone must abide by the rules that are set by the government.	Employees are able to provide a positive and progressive performance
Bureaucracy	The existing bureaucratic system in this country sometimes does not correspond with our person	Employees are quick to develop skills and the working policy and the objectives of the company, employees are given more freedom

Source: (Virmansyah, 2017)

2.3. Innovative Work Behaviors

Individual behavior in the organization is a form of interaction between individual characters and organizational characteristics. The behavior of every individual in the organization must be various and different, because the individual one is definitely different from the other individual. Characteristics of the individual will be taken when the individual is entering a new environment, the new environment is the organization, and the organization is also an environment that has its own characteristics, so sometimes disconnects occur between individual characters with organizational characteristics (Hima, 2015).

Kurt Lewin was a one of the first psychologists to purpose that the development of an individual was the product of interaction between genetic and life experience from an individual environment (Bateman, 2022; Burnes, 2019; Psychology Notes HQ, 2013). This concept was called Field Theory and is presented in a form of mathematical equation as $B = f(P, E)$; "B" stands for behavior, "f" stands for behavior function, "P" stands for person, and "E" stands for environment around the person (Bateman, 2022; Burnes, 2019; Roy, 2012).

De Spiegelaere, Van Gyes, and Van Hootegem (2014) concluded that innovative work behavior (IWB) concept strongly "*overlaps with concepts like workplace creativity, entrepreneurship, organizational citizenship behavior, personal initiative, taking charge, and employee-driven innovation.*" In other words, IWB coincide in part with individual employee's behaviors within an organization (Farurukh, Meng, Raza, & Wu, 2022; Frese & Fay, 2001). Yuan and Woodman (2010) conducted research that examined how employees' innovative behavior affect job performances and imagine inside the employees' organizations and found that the outcome expectations were shaped by individual difference factors that include supervisor relationship, job requirement, employee reputation, and their satisfaction rate with the status quo in the organizations (Wang, Chen, & Xie, 2022; Chang & Lin, 2023). It was concluded that employee innovation has been considered as one of the most important sources for organizations to remain active in a competitive business environment and survive in the long run (Parke, 2021; He & Kim, 2021; Nasir, et al., 2022). This can lead to a conclusion that when an employee has innovative work behavior, it can consequentially increase job performance and ensure effective organizational process. To mirror the aspect of creativity, entrepreneurship, organization citizenship behavior, initiatives, taking charge and employee-driven innovation, those are representing POLC (Goljic, 2021; Kinicki & Williams, 2015), as a preliminary step, a cross-cultural awareness (Central Vancouver Island Multicultural Society, 2020; Roysircar, 2004; Spruce, 2016), and a perspective on multiple intelligence (Cherry, 2023a; Supriatna, Trinova, Anantadjaya, Dewi, & Nawangwulan, 2021).

2.4. Research Model & Hypothesis

In the research model, there are some variables to note, as follows;

1. For the Personal Characteristics (Griffin & Moorhead, 2014), to note the primary dimension (age and gender), and the secondary dimension (education, income, and experience)
2. For the POLC (Goljic, 2021; Kinicki & Williams, 2015) is about the planning, organizing, leading and controlling
3. For the cross-cultural (Central Vancouver Island Multicultural Society, 2020; Roysircar, 2004; Spruce, 2016), it is incorporated available online quizzes to look for basic awareness among groups of people
4. For the multiple intelligence (Cherry, 2023a; Supriatna, Trinova, Anantadjaya, Dewi, & Nawangwulan, 2021), it covers visual/spatial, linguistic/verbal, logical/mathematical, body kinesthetic, musical, inter-personal, intra-personal, and naturalistic

From the explanation above, it is to illustrate the research model in this study, with its hypothesis are as follows;

H_1 : Personal Characteristics show impact onto POLC
H_2 : POLC shows impact on Cross-Cultural Awareness
H_3 : POLC shows impact on Multiple Intelligences

3. Methods

There was a total of 150 questionnaires. From the available questionnaires, there were about 13 unfinished, and 9 uncompleted, and to make a total of 128 responded. Questions that were asked were attempting to find out an individual's personality, traits, toward the POLC (Goljic, 2021; Kinicki & Williams, 2015), cross-cultural awareness (Central Vancouver Island Multicultural Society, 2020; Roysircar, 2004; Spruce, 2016), and multiple intelligences (Cherry, 2023a; Supriatna, Trinova, Anantadjaya, Dewi, & Nawangwulan, 2021). The questionnaires were distributed via e-mails, online, and through social media applications. The methods in analyzing data were presented by percentages in frequency, and crosstab, including validity and reliability tests.

3.1. Descriptive Analysis

The descriptive statistic data show the total of 128 respondents, with the reliability and validity testing show the means are all acceptable for the results, reliability test of 0.812, and the validity test of 0.607.

Figure 3: Descriptive Statistics

	N	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Stat	Stat	Stat	Stat	Stat	Std. Error	Stat	Std. Error
Age	128	2.70	1.069	1.143	0.991	0.214	-0.294	0.425
Edu	128	2.95	0.955	0.911	-0.402	0.214	0.013	0.425
Gen	128	1.37	0.484	0.234	0.558	0.214	-1.716	0.425
Exp	128	3.72	1.964	3.857	0.040	0.214	-1.562	0.425
P	128	3.52	1.019	1.039	-0.496	0.214	-0.152	0.425
O	128	3.30	0.944	0.891	-0.190	0.214	-0.187	0.425
L	128	3.84	1.010	1.020	-1.480	0.214	2.249	0.425
C	128	3.88	0.914	0.835	-1.007	0.214	1.218	0.425
CC	128	3.70	0.952	0.906	-0.743	0.214	0.546	0.425
Ling	128	3.95	0.908	0.824	-0.982	0.214	1.588	0.425
Log	128	4.13	0.878	0.772	-1.027	0.214	0.952	0.425
Mus	128	3.69	0.911	0.831	-0.351	0.214	-0.327	0.425
Spa	128	3.16	1.107	1.225	-0.544	0.214	-0.419	0.425
Kin	128	3.10	1.093	1.194	-0.204	0.214	-0.635	0.425
Int	128	3.34	0.907	0.823	-0.527	0.214	-0.092	0.425
Nat	128	3.71	1.005	1.010	-0.714	0.214	0.171	0.425
Inter	128	4.17	0.989	0.978	-1.048	0.214	0.457	0.425

Source: (IBM SPSS Statistics, 2017)

Figure 4: Validity Testing

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.607
Bartlett's Test of Sphericity	Approx. Chi-Square	1081.673
	Df	151
	Sig.	0.000

Figure 5: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.795	**0.812**	18

Figure 6: Communalities

	Initial	Extraction	Meaning
Age	1.000	0.479	minimal to show the significance
Edu	1.000	0.310	
Gen	1.000	0.506	
Inc	1.000	0.695	a 69.5% that Income show relevancy to the model.
Exp	1.000	0.712	a 71.2% that Experience show relevancy to the model.
P	1.000	0.466	minimal to show the significance
O	1.000	0.658	a 65.8% that Organizing show relevancy to the model.
L	1.000	0.644	a 64.4% that Leading show relevancy to the model.
C	1.000	0.639	a 63.9% that Controlling show relevancy to the model.
CC	1.000	0.677	a 67.7% that Cross-Culture show relevancy to the model.
Ling	1.000	0.786	a 78.6% that Linguistic show relevancy to the model.
Log	1.000	0.624	a 62.4% that Logistic show relevancy to the model.
Mus	1.000	0.534	minimal to show the significance
Spa	1.000	0.716	a 71.6% that Spatial show relevancy to the model.
Kin	1.000	0.750	a 75% that Kinesthetic show relevancy to the model.
Int	1.000	0.619	a 61.9% that Intra-Personal show relevancy to the model.
Nat	1.000	0.431	minimal to show the significance
Inter	1.000	0.600	a 60% that Inter-Personal show relevancy to the model.

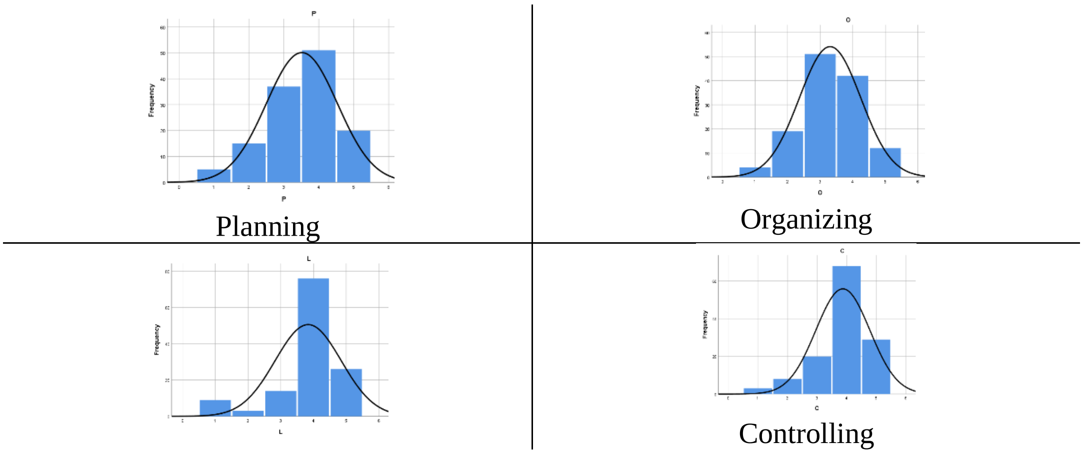
Extraction Method: Principal Component Analysis.

Source: (IBM SPSS Statistics, 2017)

4. Results

The percentages for planning, organizing, leading, and controlling (Goljic, 2021; Kinicki & Williams, 2015) are shown in the tables below.

Figure 7: Frequency on POLC



Planning

Organizing

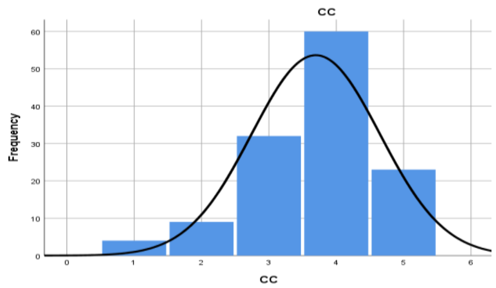
Controlling

Leading	

1. The planning and organizing consists of "neutral", and "agree", leading and controlling show "agree". The planning and organizing display consistency to show the actual planning and organizing inside the workplace are deemed toward the younger generation, undergraduate degree, more females, more singles, having a maximum income of Rp. 30 million, and a maximum of 4 years of working experience, whereas the leading and controlling are the job titles for the more senior members with a much older generation, have multiple degrees, and more experience. This is to say that the younger age, undergraduate degrees, singles, and a few years, these employees

2. The cross-cultural awareness (Central Vancouver Island Multicultural Society, 2020; Roysircar, 2004; Spruce, 2016) consists of the majority "agree" and up to 47% agreeing to the statement. It discusses that the cross-cultural awareness provides younger generation are becoming aware of the cross-cultural, having advance degrees, more females, middle income, and have a maximum of 4 years of working experiences. This is to say that the cross-cultural is more obvious with respondents of advance degrees, middle income, and having a working experience.

Figure 8: Frequency on Cross-Cultural Awareness

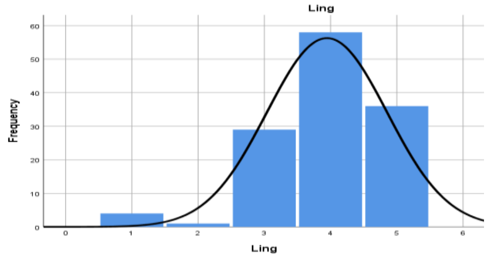


	Frequency	Percent	Valid Percent	Cumulative Percent
1	4	3.1	3.1	3.1
2	9	7.0	7.0	10.2
3	32	25.0	25.0	35.2
4	60	46.9	46.9	82.0
5	23	18.0	18.0	100.0
Total	128	100.0	100.0	

3. The multiple intelligence (Cherry, 2023a; Supriatna, Trinova, Anantadjaya, Dewi, & Nawangwulan, 2021) show evidence like such;
    a. The linguistics and verbal intelligence show the tendency of people that they are good in verbal and in writing and speaking. These people are good in writing stories, information and reading. This shows the quality of employees in ability conversing any statements to their colleagues. It shows evidences on "3", "4" and "5", for a total of about 96% of the respondents. This intelligence, it is noted that experience above averages than the normal employees (48%), average income is about Rp. 20 million (62.5%), the level of education is having undergraduate degree (73%), with a minimum of 35 years of age (60%). This is to say that the

undergraduate degree, income is about Rp. 20 million, and with a minimum of 35 years of age, these employees have the linguistic and verbal intelligence.

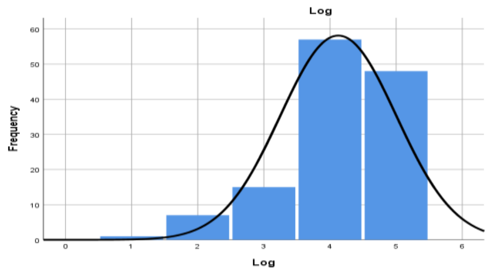
Figure 9: Linguistic and Verbal



	Frequency	Percent	Valid Percent	Cumulative Percent
1	4	3.1	3.1	3.1
2	1	.8	.8	3.9
3	29	22.7	22.7	26.6
4	58	45.3	45.3	71.9
5	36	28.1	28.1	100.0
Total	128	100.0	100.0	

b. People in logical and mathematical intelligence, they do have the power in making reasoning, recognizing patterns, and analyzing cases. This group of employees are good in trying to recognize numbers, patterns and relationships among others elements. It shows evidences on "4" and "5", for a total of 82% of the respondents. The employees are superior in noting complexities around problem. This intelligence shows that ages are the highest brackets (82%), the level of education is relatively high as well, above undergraduate degrees (73%), the level of income is roughly Rp. 20 million (80%), and their experiences are just about more than 5 years (71%). This is to say the older the ages, income is about Rp. 20 million, with more than 5 years of experience and an undergraduate degree, all of them have the logical and mathematical intelligence. Perhaps, the systems that people have gone really ignites them to get more into logical/mathematical perspectives rather than irrational sense

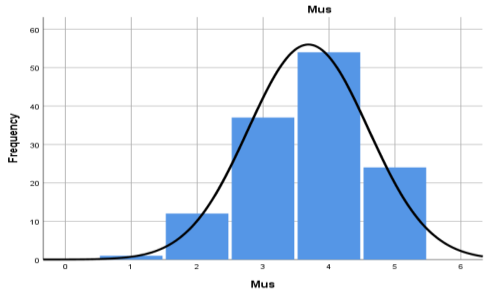
Figure 10: Logical and Mathematical



	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	.8	.8	.8
2	7	5.5	5.5	6.3
3	15	11.7	11.7	18.0
4	57	44.5	44.5	62.5
5	48	37.5	37.5	100.0
Total	128	100.0	100.0	

c. In musical intelligence, people are good in recognizing musical tones, remembering songs, and they have interested in singing and playing musical instruments. These people who have the excellent understanding about rhythm, notes, and musical structures. It is evident that the scores are "3", "4", and "5", for a total about 90% of the respondents. This musical intelligence shows that their experiences are about 4 years (71%), about Rp. 20 million on the income level (80%), have a master degree (73%), and have a minimum age of 30 years (88%). This is to say that the maximum of 4 years of experience, income is about Rp. 20 million, have a master degree, but a minimum of 30 years of age, these employees have musical intelligence.

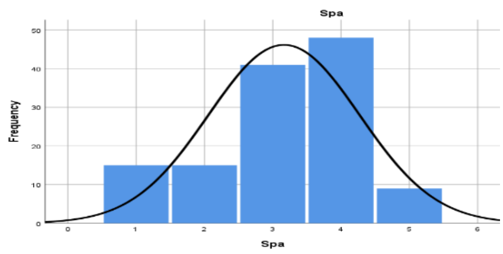
Figure 11: Musical



	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	.8	.8	.8
2	12	9.4	9.4	10.2
3	37	28.9	28.9	39.1
4	54	42.2	42.2	81.3
5	24	18.8	18.8	100.0
Total	128	100.0	100.0	

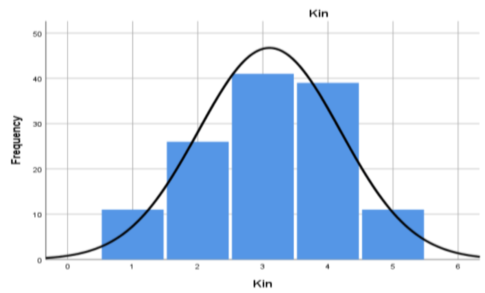
d. In terms of spatial and visual intelligence, the people are having tendency in reading/write, have the ability to draw conclusions of pictures, graphs and charts, enjoying drawing, painting and visual arts. It shows the responses are “3” and “4”, for about 71% that the majority are about a minimum of 35 years (85%), have a minimum of undergraduate degree (73%), have majority about the middle income (80%), and have the working experiences of more than 5 years (32%). This is to say that as the employees have a minimum of 35 years, about the middle income and have a minimum of undergraduate degrees, or have more mature, these employees appear to have visual and spatial intelligence.

Figure 12: Spatial and Visual



	Frequency	Percent	Valid Percent	Cumulative Percent
1	15	11.7	11.7	11.7
2	15	11.7	11.7	23.4
3	41	32.0	32.0	55.5
4	48	37.5	37.5	93.0
5	9	7.0	7.0	100.0
Total	128	100.0	100.0	

Figure 13: Bodily Kinesthetics

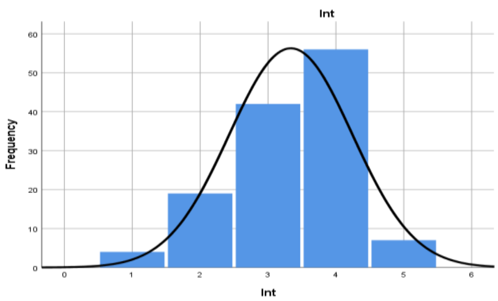


	Frequency	Percent	Valid Percent	Cumulative Percent
1	11	8.6	8.6	8.6
2	26	20.3	20.3	28.9
3	41	32.0	32.0	60.9
4	39	30.5	30.5	91.4
5	11	8.6	8.6	100.0
Total	128	100.0	100.0	

e. In bodily kinesthetic intelligence, people have the tendency in creating somethings with his or her hands, have superb physical coordination, prefer to perform rather than hearing and seeing. It shows about 70% of the respondents with an average of "3" and "4". Though it is still many, but people who are dealt with bodily kinesthetic are employees with middle level of expertise (32%), an average monthly income of less than Rp. 15 million (62.5%), have a maximum of undergraduate degrees (24%), and have a maximum of 30 years of age (60%). This is to say that the as the experience grows, and the education is improving, the level of kinesthetic is progressing.

f. In intra-personal intelligence, people are having tendency of being good and aware of their own emotional, motivation and feeling stages. These people enjoy the analysis, exploring relationship, and expressing the personal strengths with their characteristics are self-reflections and introspection. It is beneficial for others to know these employees due to their analyses on strengths and weaknesses are well thought, and also their understanding on motivation feelings is extraordinary. It shows an average of "3" and "4", for a total of 76% of all respondents with ages of maximum of 30 years (77%), 49% are having master degrees, 81% are female employees who have intra-personal intelligence, 80% are having an average of Rp 15 million, and have a minimum of 1 year for a total about 18%. This is to say that the maximum of 30 years old, with a minimum of 1 year of experience, the average income of Rp. 15 million, and female employees, they are all showing the intra-personal intelligence.

Figure 14: Intra-Personal

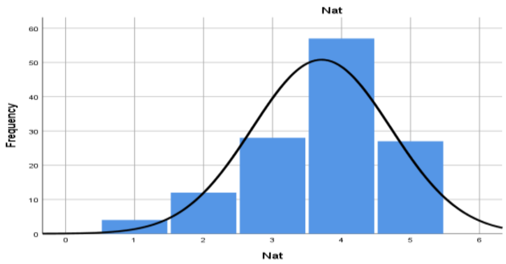


	Frequency	Percent	Valid Percent	Cumulative Percent
1	4	3.1	3.1	3.1
2	19	14.8	14.8	18.0
3	42	32.8	32.8	50.8
4	56	43.8	43.8	94.5
5	7	5.5	5.5	100.0
Total	128	100.0	100.0	

g. In naturalistic intelligence, people have the tendency of easier time in categorizing information, exploring outdoors, dislike non-natural topics and have no connection to nature. It shows that on averages "3", "4", and "5", for a total 87.5% of the respondents is able to portray the naturalistic that they are having a minimal year of experience (29%), have the highest income (25%), about 37% males are falling in this category, 27% are having doctoral degrees, and 37.5% are more than 50 years old. This is to say that as employees are getting younger (age, education, experience), the naturalistic intelligence is presence for them.

Figure 15: Naturalistic

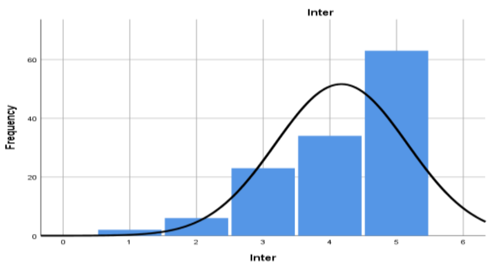
	Frequency	Percent	Valid Percent	Cumulative Percent



1	4	3.1	3.1	3.1
2	12	9.4	9.4	12.5
3	28	21.9	21.9	34.4
4	57	44.5	44.5	78.9
5	27	21.1	21.1	100.0
Total	128	100.0	100.0	

h. Inter-personal intelligence, this it to note that people are good in interaction and understanding with others and they are so wonderful in assessing others' emotions, motivation, intentions and desires around them. This people are able to talk verbally and non-verbal as they are incapable of seeing through different perspectives, and their resolving conflicts in groups. For the majority of "5", or a total of 49.2%, it is perceived from 25% of the respondents shows the highest level of inter-personal intelligence are in the top level of the questionnaire, 26.5% are having the doctoral level, 11.7% are males that falling in this category, 18% are having the highest level of income, and 17% are having more than 5 years of experience. This is to say that it as the age is advancing, the level of education is progressing, the income becomes larger, and most people have quite a bit of experiencing, the inter-personal intelligence is existent for employees.

Figure 16: Inter-Personal



	Frequency	Percent	Valid Percent	Cumulative Percent
1	2	1.6	1.6	1.6
2	6	4.7	4.7	6.3
3	23	18.0	18.0	24.2
4	34	26.6	26.6	50.8
5	63	49.2	49.2	100.0
Total	128	100.0	100.0	

5. Conclusion & Findings

Although this is may be true, there are people who have similarities when it comes to age, income, education, and experience, but everybody else is just so different. Hence, regardless of whether or not an individual is working either in the private sector or public sector, it all comes down to their background and personalities as an individual person. Evidently, an individual's background may shape his or her managerial abilities (planning, organizing, leading, and controlling), which ultimately affect their ability to conduct and be aware of different cultures in an international level. Furthermore, an individual's background, personality, and upbringing may influence their potential ability to conduct some kind of inefficiency. Though this may be true, there are some variables according to the data that was collected that have little to no effect on an individual's performances at work and in life. Except, ages, experience, income, and education provide some features on such differences. That, as the ages of the employees are advancing, and their experience are well grasp, and their income becomes a bit more, and their level of education has upgraded, it is all shown in the evidence that the willingness on POLC, cross-cultural awareness and multiple intelligence are improving drastically. Different triggers will ultimately give a modify reaction in the current stage of individual's situation.

An individual's environment has a higher chance in determining the development of a mindset, characteristic, personalities and knowledge. An individual behavior in an organization is a form of interaction between individual characters and organizational characteristics. And the characteristics of the individual will be taken when the individual is entering a new environment, the new environment is the organization, and the organization is also an environment that has its own characteristics, in other words, characteristic traits are traded amongst people and the organization that they enter and/or currently in.

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CHAPTER 5

The Effect on Financial Performance of PT Medco Energi Internasional, Tbk. After Acquisition of Ophir Energy Plc. in 2019

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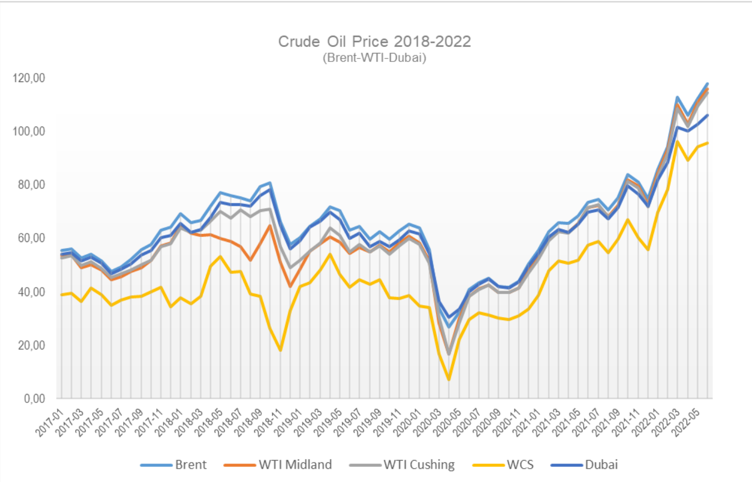
ABSTRACT

PT Medco Energi Internasional Tbk. (MEDC) is an Indonesian energy company that invests in the upstream oil and gas sector. It was established in 1980 and became a publicly traded company in 1994. To fuel its growth. MEDC has aggressively expanded its business through mergers and acquisitions (M&A) of various domestic and international assets while maintaining revenue and cash flow. Sustaining value creation for shareholders can be achieved by keeping financial ratios that measure liquidity, activity, profitability, and long term solvency. This research aims to understand how the company's financial performance affected on the acquisition of Ophir Energy plc in 2019 This research aims to understand how the company's financial performance was affected by acquisition of Ophir Energy Plc. in 2019. Based on eight quarterly data before and after acquisition, the result shows an increase corporate asset, leading to improved production and better margins of gross profit, operating profit, and net profit. This also results in improvements in return on asset and return on equity, ultimately enhancing the company's ability to cover interest obligations. By correlating M&A activities with financial performance, will gain insight into company's potential to grow its assets through M&A activities and identify best solutions.
Keywords: Merger and Acquisitions, Financial Performance, Value Creations.

1. INTRODUCTION

MEDC was established in 1980, and its initial business in oil and gas exploration and production industry occurred when MEDC acquired Tesoro E&P operating asset in East Kalimantan Province both its Technical Assistant Contract (TAC) and Production Sharing Contract (PSC). One year after listed in Jakarta Stock Exchange, MEDC acquired 100% of PT Stanvac Indonesia from Exxon and Mobil Oil in 1995, enabling it to produce of crude oil in onshore asset. They expanded its upstream activities by acquiring 100% of the shares of Novus Petroleum Ltd, an Australian listed company was operated in Australia, United States, Middle East and also Indonesia. In its development, MEDC's competitive advantage is its expertise in maintaining production from aging fields and extending the productivity of its assets (MedcoEnergi, 2024).

The company expanded into offshore gas fields by acquiring assets in South Natuna Block B and later increase the interest by acquiring shares of Inpex. Then also bought UK based company Ophir Energy Plc. (OEP), boosting gas production in Thailand, Vietnam, and Indonesia. MEDC continued to create shareholder value through M&A activities. Amidst the pandemic, crude oil and natural gas prices shortfall, affecting total sales and suppress the corporate revenue. These activities raise interesting research questions about their impact on financial performance, particularly regarding the acquisition of OEP in 2019.



Source: Rystad Energy Cube® applications under subscription of SKK Migas

Figure 1. Crude Oil Price (Brent, WTI and Dubai) 2018-2022

After 2014, Figure 1 shows the decline in oil prices started in late 2018 due to concerns about excess supply and the easing of US sanctions on Iran and was further impacted by the global pandemic. Taking advantage on the shortfall trend line, on May 22nd, 2019 MEDC completed the £408.4 million acquisition of OEP to operate asset in Southeast Asia. This was expected to increase production by 29% in 2019 (MedcoEnergi, 2019). MEDC had also acquired Inpex Natuna Ltd. (MedcoEnergi, 2017) priory and ConocoPhillips Indonesia Holding Ltd. in 2022 for upstream asset and gas pipeline from South Sumatera to Singapore (MedcoEnergi, 2022). Those M&A activities will effect on durations of the research.

The aims of this research are to understand how the company's financial performance effected from acquisition of OEP, determine the significance difference before and after the acquisition.

2. LITERATURE REVIEW

Corporations often see M&A as the best way to expand ownership, while some studies suggest separating a subsidiary's public ownership provides more benefits. M&A can create synergies, improve scale, expand operations and reduce cost. Investors expect that the mergers will increase market power (Ismail, Abdon, & Annis, 2011).

Acquiring a company is more complex than buying a system of machinery. Selling shareholders earn large abnormal returns, while the bidding firm's shareholders make smaller gains. This will drive investors expect acquisition generate positive benefits for investor, which believed as higher earnings per share ((Brealey, Myers, Allen, & Edmans, 2023). The cost of shares depends on the fraction of the merged company owned by the target shareholders and the post-acquisition share value.

On paper, M&A activity sounds promising, but in reality things can go wrong. Research shows many mergers and in disappointment due to flawed motivations and the failure to achieve economies of scale (Ismail, Abdon, & Annis, 2011). The impact of acquisition on corporate performance is minimal during the announcement stage and generally negative in the long term. In the short run, acquisition have, at best a negligible impact on shareholder wealth (Tuch & O'Sullivan, 2007).

Charliepaul et. Al. (2015) mentioned the financial ratio is a good evaluation method to measure the company performance (Daryanto & Dety, Financial Performance Analysis Before and After the Decline in Oil Production: Case Study in Indonesia Oil and Gas Industry, 2018). Many companies use this method for benchmarking their performance with the competitors, seeing the company's choices and funding of investment (Berk & deMarzo, 2023).

There three common methods to measure the financial performance, which are accounting measurement, market measurement, and the combination of both measurements (Daryanto & Dety, Financial Performance Analysis Before and After the Decline in Oil Production: Case Study in Indonesia Oil and Gas Industry, 2018), which each is subject to particular biases (McGuire, Schneeweis, & Hill, An Analysis of Alternative Measures of Strategic Performance, 1986). Accounting performance should also be adjusted for risk, industry characteristics, an other variables (Aaker & Jacobson, 1987). To avoid the problems of accounting measurement, some research used market measurement (McGuire, Sundgren, & Scneeweis, Corporate Social Responsibility and Firm Financial Performance, 1988).

Financial ratios shows as relationship determined from a company's financial information can be used for comparison purposes (Ross, Westerfeld, Jaffe, & Jordan, 2022). To generate shareholder value, comprise of investment and financing perspective (Brealey, Myers, Allen, & Edmans, 2023). The efficiency use of asset and profit gains from sales will define the profitability of investment, while a prudent financial leverage and sufficient liquidity for the coming year will determine sustainable growth rate for the financing aims.

Traditionally, financial ratios comprise of liquidity (short-term solvency) ratio, activity ratio, long-term solvency ratios, market value ratios and DuPont analysis (Gitman & Zutter, 2015). Ratio analysis of financial performance have different interest among shareholder, and creditors, while company's own management have concerns with all aspect of the situations and attempt to produce financial ratios (Gitman & Zutter, 2015).

There are previous empirical studies on MEDC financial performance, which evaluate the relation among financial performance (Cahyani & Winarto, 2017), (Supriadi & Gendalasari, 2013). Hence, the are limited resources which evaluate the corporate financial performance oil and gas companies in Indonesia (Daryanto & Dety, 2018). The similar financial ratio analysis of oil and gas companies had been carried out (Daryanto, Nugroho & Mifta, 2020), (Pardede & Daryanto, 2020); (Daryanto & Wibisono, 2019), which adapted in banking industry in Oman to examine, evaluate, and ranked based on their performance (Tarawneh, 2006), which has relations with asset management, size, and efficiency (Purwanegara, Apriningsih, & Andika, 2014).

3. RESEARCH METODOLOGY

The research uses financial ratio analysis (FRA) to assess liquidity, activity, profitability, and solvency ratio of MEDC. It analyzes the effects of OEP's acquisition on these ratios from 2017 to 2022.

The research models adapted from the previous research in Nigeria (Taiwo, 2010) and (Abubakar, 2020). It describes measuring financial performance and comparing the oil and gas industry's performance before and after OEP acquisition in the second quarter of 2019.

MEDC's data was obtained from market measurement using the Stockbit® application. Financial information will be compared eight quarters before and after the acquisition.

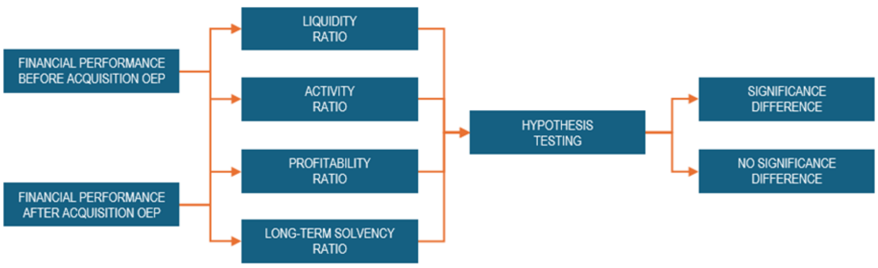


Figure 2. Research model development for financial ratio analysis.

Each of the financial ratios is accompanied by a hypothesis test, where:
H_0: There is no significant effect on financial performance before and after acquisition
H_1: There is a significant effect on financial performance before and after acquisition.

Each financial ratio is evaluated by conducting a paired t-test using Data Analysis Tools in Microsoft Office® Excel Professional Series 2016 when the data consists of matched pairs and follows a normal distribution.

The FRA parameter comprises liquidity, activity, profitability and long-term solvency, as described below.

a. Liquidity Ratio

a.1 Current Ratio

Current ratio (*CR*) measures the company's ability to pay-off short term liabilities with their current assets (Pardede & Daryanto, 2020).

$$CR = \frac{Current\ Assets}{Current\ Liabilities}$$

a.2 Quick Ratio

The quick ratio (also known as acid-test ratio) measures the company's ability to pay short term liabilities by company's liquid assets (Wardiyah, 2017), which almost same as current ratio, but does not include inventory in calculation (Sukamulja, 2019). Quick ratio known more rigorous measure of short term solvency test that the current ratio because eliminates inventories that deemed to be slightly not liquid and possible become a loss (Fahmi, 2018).

$$QR = \frac{(Cash + Cash\ Equivalent) - Inventory - Advance\ Payment}{Current\ Liabilities}$$

b. Activity Ratio

b.1 Collection Period

Collection Period (*CP*) indicates the number of days' company need to converts the accounts receivable into cash. This ratio shows the company's effectiveness granting credits and collects from customer (Pardede & Daryanto, 2020).

$$CP = \frac{Accounts\ Receivables}{Net\ Sales} \times 365\ days$$

b.2 Inventory Turnover

Inventory Turnover (*IT*) measures how many times a company's inventory is sold and replaced over a specific period, typically a year, which is assessing the efficiency of inventory and its liquidity. A high IT may indicate a combinations of an efficient inventory management and strong sales (Pardede & Daryanto, 2020).

$$IT = \frac{Cost\ of\ Revenue}{Inventory}$$

b.3 Total Asset Turnover

Total Asset Turnover (*TAT*) measures the efficiency with, which company uses their assets to generate sales, indicates the effectiveness the company in utilizing their assets to procedures revenue. A higher total assets turnover ratios implies more efficient asset usage (Pardede & Daryanto, 2020).

$$TAT = \frac{Net\ Sales}{Average\ Total\ Asset}$$

c. Profitability Ratio

Profitability ratio measures the company's ability to generate profit from sales, assets and capital share, which comprises of profit margin calculations and its return on asset and return on equity.

c.1 Gross Profit Margin

Gross Profit Margin (*GPM*) indicates the remaining cash that company has, after paying all costs and expenses, a higher value of GPM is preferred (Pardede & Daryanto, 2020).

$$GPM = \frac{Gross\ Profits}{Sales}$$

c.2 Operating Profit Margin

Operating Profit Margin (*OPM*) measures percentage of remaining cash that company has, after expenses but exclude interest, taxes and preferred stock dividend (Pardede & Daryanto, 2020).

$$OPM = \frac{Operating\ Profits}{Sales}$$

c.3 Net Profit Margin

Net Profit Margin (*NPM*) measures percentage of remaining cash that company has, after expenses include interest, taxes and preferred stock dividend (Pardede & Daryanto, 2020).

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

c.4 Return on Asset

Return on Asset (*RoA*) also called as return on Investment (*RoI*) indicates percentage of profit on delivered sales, in other words shows the efficiency of investment employed by company (Pardede & Daryanto, 2020).

$$RoA = \frac{Net\ Income}{Total\ Asset}$$

c.5 Return on Equity

Return on Equity (*RoE*) indicates company's profitability compared with its total equity (Pardede & Daryanto, 2020).

$$RoI = \frac{Net\ Income}{Shareholder's\ Equity}$$

d. Long-term Solvency

d.1 Debt to Asset

Total debt ratio (*DAR*) measures all debts compared to the company's total assets (Pardede & Daryanto, 2020).

$$DAR = \frac{Total\ Assets - Total\ Equity}{Total\ Assets}$$

d.2 Debt to Equity

Total debt ratio (*DER*) measures all debts compared to the company's equity (Pardede & Daryanto, 2020).

$$DER = \frac{Total\ Assets - Total\ Equity}{Total\ Equity}$$

d.3 Interest Coverage Ratio (TTM)

Interest Coverage Ratio (*ICR*), or also known as Times Interest Earned (*TIE*) ratio, shows how well interest' obligation is covered by the company. Interest expense is calculated for the current twelve months for ease understanding and analysis on a trailing twelve months (TTM) (Pardede & Daryanto, 2020).

$$ICR = \frac{EBIT}{Average\ Interest}$$

d.4 Cash Coverage Ratio

Cash Coverage Ratio (*CCR*) similar with interest coverage ratio. Different with *ICR* based on *EBIT*, the CCR based on cash flow from operation, which is the earnings before interest, taxes, depreciation and amortization. Interest expense is calculated for the current twelve months to facilitate understanding and analysis on a trailing twelve months (TTM) (Pardede & Daryanto, 2020).

$$CCR = \frac{EBITDA}{Average\ Interest}$$

4. RESULT AND DISCUSSION

Liquidity Performance

The liquidity ratio indicates the company's ability to cover short-term liabilities, which shown in Figure 3.

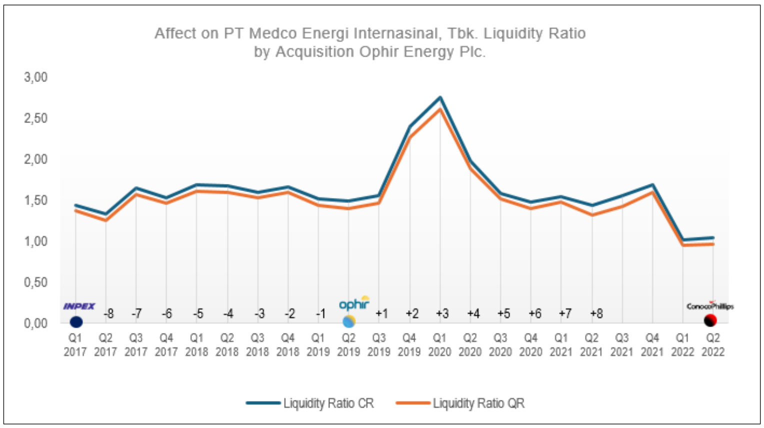


Figure 3. Liquidity ratio comprise of cash ratio and quick ratio

As seen in Figure 3, both the value of the cash ratio and quick ratio are over 1,00, indicating the company's ability to pay its current liabilities with cash or current assets, both before and after acquisition. However, a high value does not indicate the company's effectiveness in managing its cash or current assets. The surge after the acquisition may come from a 29% increase in production (MedcoEnergi, 2019), allowing MEDC to pass through the pandemic and price shortfall in 2020. The paired two-sample t-test will help determine the significance differences before and after acquisition.

Activity Performance

The activity ratio indicator consists of the collection period, inventory turnover, and total asset turnover. In Figure 4, before acquisition MEDC collects receivables faster, typically within a week from around a month, and the speed gets slower after acquisition. These trends were also influenced by the global pandemic and are expected to recover post-pandemic. On average, before and after acquisition, the time it takes to convert receivables into cash during four weeks. Inventory turnover measures how quickly MEDC sells and replaces its stock. Shorter days indicate the company's effectiveness in managing its inventory and products.

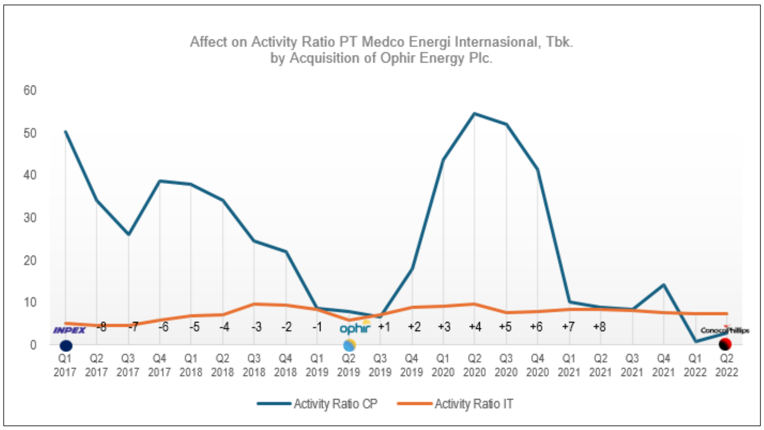


Figure 4. Activity ratio comprise of collectible period and inventory turnover

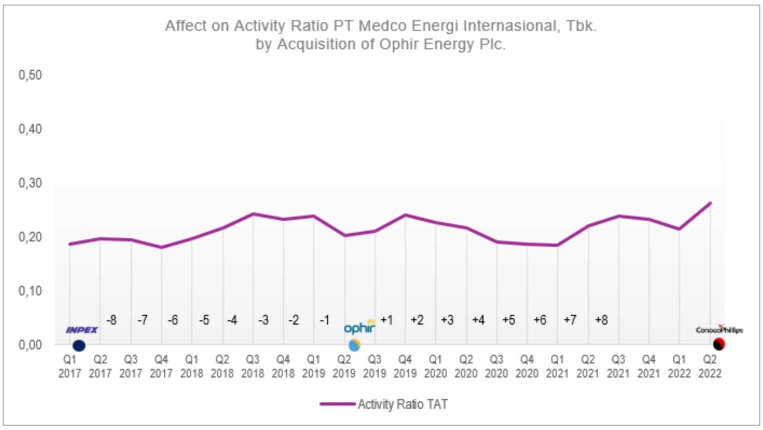


Figure 5. Activity ratio total asset turnover

Total asset turnover measures a company's ability to generate revenue from its assets, showing its effectiveness in managing them to generate revenue. A higher ratio is preferable, representing good asset management. Figure 5 shows MEDC is recognized for its expertise in mature assets and its ability to extend the field's economic life, as evidenced by its stable total asset turnover. A paired two-sample t-test will determine significance differences before and after acquisition for each activity ratio.

Profitability Performance

The company's profitability is calculated by deducting the cost of revenue and operating expenses from the gross revenue to determine the operating income, which is then adjusted for office overhead, administration, and liabilities to find the net profit margin.

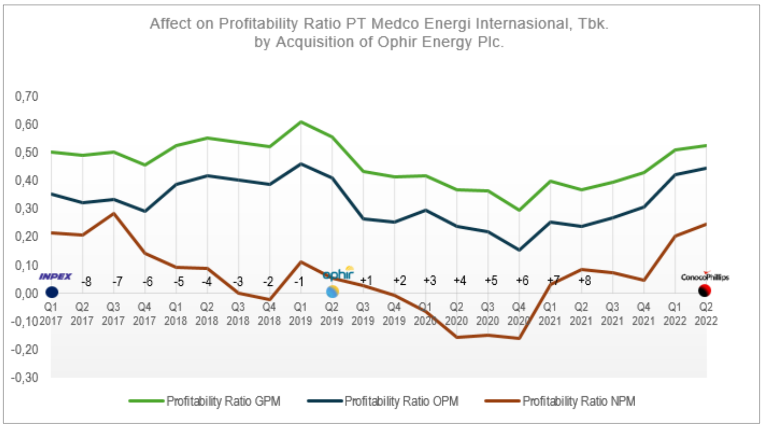


Figure 6. Profitability ratio consists of gross, operating and net income profit margin.

Figure 6 shows the company experienced a negative net profit margin shortly after completing the acquisition, mainly due to a price shortfall in the last quarter of 2019 and exacerbated by the global pandemic. However, the margin rebounded following the pandemic recovery.

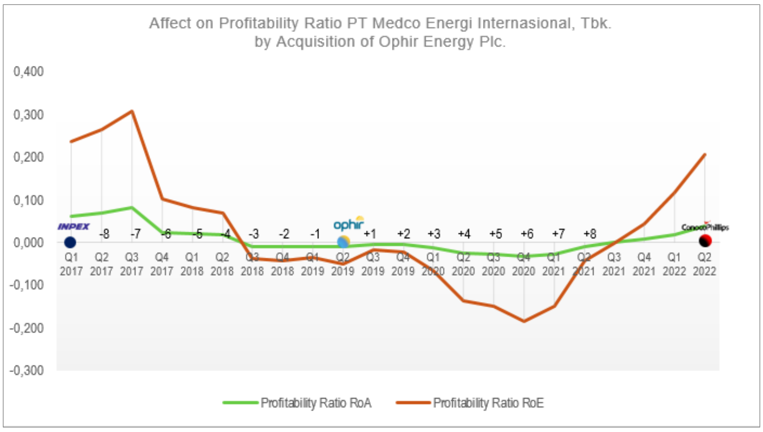


Figure 7. Profitability Ratio, comprise of Return on Asset and Return on Equity

The Return on Asset (RoA) measures the company's efficiency in using the total assets to generate profit, while the Return on Equity (RoE) is defined as profit attributable to shareholders divided by the average shareholder's equity. As indicated in Figure 7, both RoA and RoE are affected by the level of profit margin procedures affected by profit margin procedures.

The Return on Asset (RoA) measures a company's efficiency in using its total assets to generate profit, while Return on Equity (RoE) is the profit attributable to shareholders divided by the average shareholder's equity. Both RoA and RoE are affected by profit margin produced. The paired two-sample t-test can help determine significant differences before and after an acquisition.

Long-term Solvency Performance

The solvency ratio measures the company's ability to cover its long-term obligations within the interest, which may consist of debt to asset, debt to equity, interest coverage ratio, and cash coverage ratio.

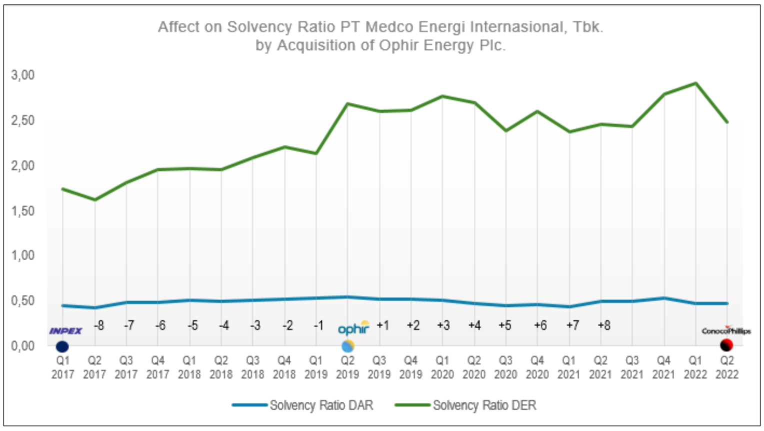


Figure 8. Long term solvency: debt to asset and debt to equity ratios

In Figure 8 shows the capital structure, asset growth from acquisition can offset the company's debt, as indicated by a stable debt-to-asset ratio. A debt-to-equity ratio of over 1,00 shows that the company relies on debts, loans or external financing than on equity for its business activities.

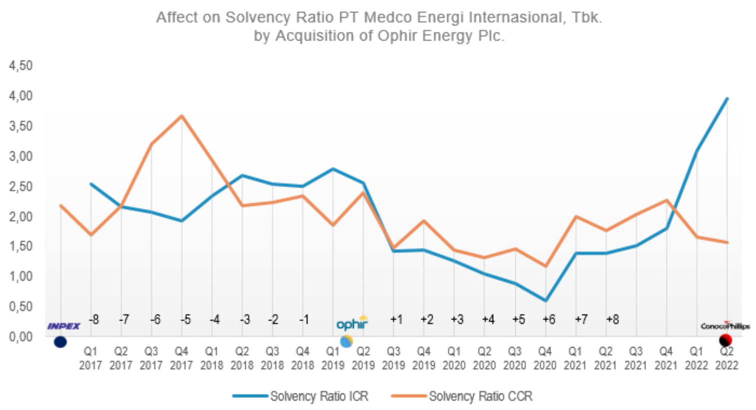


Figure 9. Interest and Cash Coverage Ratios of MEDC

The ratios of ICR and CCR should be greater than 1,00 indicating company's ability to cover its liabilities, which a good indicator as showed in Figure 9. Since the third quarter of 2019, some critical ratios occurred were linked to securing external financing for acquisition, addressing price shortfall and recovering from the global pandemic. A paired two-sample t-test will determine significance differences before and after acquisition for each long-term solvency ratio.

Table 1. Paired Two-Samples t-test

NO	DESCRIPTION	PERIOD	MEANS	STDEV	PTS t-test		DECISION
					STAT.	TABLE	
A.1	Cash Ratio	Before	1,579	0,122	-1,508	2,365	H_0 accepted, no significant affect
		After	1,841	0,470			
A.2	Quick Ratio	Before	1,507	0,122	-1,419	2,365	H_0 accepted, no significant affect
		After	1,744	0,469			
B.1	Collection Period	Before	28	10	-0,204	2,365	H_0 accepted, no significant affect
		After	29	20			
B.2	Inventory Turnover	Before	7	2	-3,090	2,365	H_0 accepted, no significant affect
		After	8	1			
B.3	Total Asset Turnover	Before	0,212	0,024	0,205	2,365	H_0 accepted, no significant affect
		After	0,209	0,020			
C.1	**Gross Profit Margin**	Before	0,524	0,045	5,144	2,365	**H_0 rejected, significant affect**
		After	0,381	0,044			
C.2	**Opt. Profit Margin**	Before	0,375	0,055	4,427	2,365	**H_0 rejected, significant affect**
		After	0,239	0,041			
C.3	**Net Profit Margin**	Before	0,112	0,100	3,914	2,365	**H_0 rejected, significant affect**
		After	-0,050	0,097			

NO	DESCRIPTION	PERIOD	MEANS	STDEV	PTS t-test		DECISION
					STAT.	TABLE	
C.4	**Return of Asset**	Before	0,023	0,035	4,038	2,365	**H_0 rejected, significant affect**
		After	-0,017	0,012			
C.5	**Return of Equity**	Before	0,023	0,135	5,133	2,365	**H_0 rejected, significant affect**
		After	-0,017	0,066			
D.1	Debt to Asset Ratio	Before	0,490	0,031	0,487	2,365	H_0 accepted, no significant affect
		After	0,480	0,033			
D.2	Debt to Equity Ratio	Before	1,965	0,187	-6,032	2,365	H_0 accepted, no significant affect
		After	2,561	0,143			
D.3	**Interest Coverage Ratio**	Before	2,373	0,305	6,685	2,365	**H_0 rejected, significant affect**
		After	1,176	0,306			
D.4	**Cash Coverage Ratio**	Before	2,572	0,623	4,097	2,365	**H_0 rejected, significant affect**
		After	1,564	0,295			

The Table 1 indicates the acquisition has no significance differences in liquidity and activity ratios since all of the t-test calculations less than the table values. The paired two-samples t-test shows significance differences in the profitability ratios of margins including gross profit, operating profit, and net profit, as well as return on assets and return on equity. The interest coverage ratio and cash coverage ratio have significance difference before and after the OEP acquisition not significance difference on debt to asset ratio and debt to equity ratio.

5. CONCLUSION

This research aims to assess the financial performance of MEDC and compare the differences between the eight quarters prior to acquisition (2017-2019) and eight quarters post acquisition (2019-2021). The research indicates that MEDC increased its corporate assets following the acquisition, leading to improved production, increased company revenue, and better margins of gross profit, operating profit, and net profit. The company's asset growth also contributed to improvement in return on asset and return on equity, ultimately enhancing its ability to meet interest obligations.

This research has expanded understandings of financial ratio in the oil and gas industry. It will benefit academics and students seeking to understand financial ratios and how to apply them in professional settings. Additionally, it provides insight for companies regarding their operations and business expansion strategy. MECD acquires assets requiring external financing to sustain the business. The company must manage additional debt by only adding productive assets to meet its financial obligations and create value for shareholders. This study result will add references an empirical research on financial performance in the real world. Conducting research on how other M&A activities affect financial performance and expanding into the upstream oil and gas industry is recommended.

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CHAPTER 6

Factors Influencing Purchase Decision of Electric Vehicle in Indonesia

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ABSTRACT

The 21st century has witnessed a significant shift towards sustainable transportation, with electric vehicles (EVs) emerging as a pivotal solution to mitigate the environmental impact of traditional combustion engine vehicles. This thesis explores the factors influencing the purchase decisions of electric vehicles in Indonesia, a rapidly developing nation with a burgeoning urban population and a growing middle class. As Indonesia strives to balance economic growth with environmental stewardship, understanding the determinants of EV adoption becomes crucial. The research identifies key factors such as demographics, social media, celebrity influence, price value, facilitating conditions, environmental consciousness, government incentives, and product quality that influence consumer intentions to purchase EVs. Utilizing a linear regression model, the study aims to predict consumer purchase intentions and provide actionable insights for manufacturers, retailers, and policymakers. The findings are expected to contribute to both academic knowledge and practical strategies, facilitating the accelerated adoption of electric vehicles in Indonesia and supporting the country's goal of achieving zero carbon emissions by 2030. By addressing the unique socio-economic and cultural landscape of Indonesia, this research not only enhances the academic understanding of consumer behavior in the automotive sector but also offers practical recommendations for industry stakeholders. The study underscores the importance of tailored products and policies to meet market demands, thereby fostering sustainable transportation practices in Indonesia.

Keywords: Electric Vehicles, Purchase Decision, Indonesia, Sustainable Transportation.

1. INTRODUCTION

The 21st century has witnessed an unprecedented surge in global awareness surrounding environmental sustainability, catalyzing a paradigm shift towards cleaner and more eco-friendly modes of transportation. Electric vehicles (EVs) have emerged as a pivotal component of this transformative journey, representing a significant leap towards reducing greenhouse gas emissions and mitigating the environmental impact of traditional internal combustion engine vehicles. As concerns over climate change intensify and the detrimental effects of conventional vehicles on air quality become more evident, the global community has committed to embracing sustainable transportation solutions.

Indonesia, as a rapidly developing nation with a burgeoning urban population and an expanding middle class, stands at a critical juncture in redefining its transportation landscape. Balancing economic growth with environmental stewardship, Indonesia faces the challenge of fostering sustainable practices within its transport sector. The Indonesian government's ambitious plan to achieve zero carbon emissions by 2030 highlights the urgency of this transition. The country's status as an emerging market for electric vehicles underscores the significance of understanding the factors that influence EV purchase decisions.

Despite the global momentum towards electric vehicles, their adoption in Indonesia remains relatively low. High vehicle prices, limited public infrastructure for battery charging, and economic challenges such as the global economic downturn and the impact of the COVID-19 pandemic have hindered widespread acceptance. However, recent years have seen a surge in demand for EVs, driven by growing environmental consciousness, government incentives, and the entry of major automotive brands into the Indonesian market.

This study aims to investigate the key factors influencing consumers' purchase decisions regarding electric vehicles in Indonesia. By identifying determinants such as demographics, social media, celebrity influence, price value, facilitating conditions, environmental consciousness, government incentives, and product quality, this research seeks to develop a comprehensive decision model to predict consumer purchase intentions. Utilizing a linear regression approach, the study aims to provide actionable insights for manufacturers, retailers, and policymakers to accelerate the adoption of EVs in Indonesia.

Understanding consumer preferences and motivations is crucial for aligning products and policies with market demands. This research not only contributes to the academic discourse on consumer behavior in the automotive sector but also offers practical recommendations for industry stakeholders. By addressing the unique socio-economic and cultural landscape of Indonesia, the study supports the broader goal of fostering sustainable transportation practices and achieving the nation's environmental targets. The 21st century has witnessed an unprecedented surge in global awareness surrounding environmental sustainability, catalyzing a paradigm shift towards cleaner and more eco-friendly modes of transportation. Electric vehicles (EVs) have emerged as a pivotal component of this transformative journey, representing a significant leap towards reducing greenhouse gas emissions and mitigating the environmental impact of traditional internal combustion engine vehicles. As concerns over climate change intensify and the detrimental effects of conventional vehicles on air quality become more evident, the global community has committed to embracing sustainable transportation solutions.

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While existing literature offers valuable insights into factors influencing EV adoption, specific research gaps exist within the context of Indonesia. These gaps include:

1. Limited Focus on Indonesia: Many studies exploring EV adoption predominantly focus on developed markets, with limited attention given to the unique socio-economic and cultural context of Indonesia.

2. Lack of Consumer-Centric Research: Existing research often lacks a deep dive into consumer preferences and decision-making processes specific to Indonesia, hindering the development of targeted strategies for EV promotion.

3. Emerging EV Market Dynamics: As an emerging market for electric vehicles, Indonesia presents dynamic market dynamics that necessitate specialized investigations into factors influencing adoption.

4. Methodological Diversification: While various studies adopt diverse methodologies, there is a need for methodological diversification to enhance the robustness and validity of findings within the Indonesian context.

2. LITERATURE REVIEW

2.1 Sustainable Transportation and EV Adoption

2.1.1 Global Perspective

The 21st century has witnessed a paradigm shift towards sustainable transportation, with a growing emphasis on reducing carbon emissions and mitigating environmental impact. Several studies highlight the pivotal role of EVs in achieving sustainable mobility (Kester et al., 2017; Axsen & Kurani, 2013). The global adoption of EVs is seen as crucial in addressing the challenges posed by traditional combustion engine vehicles or internal combustion engine (ICE).

2.1.2 Indonesian Context

In the context of Indonesia, a rapidly developing nation, the importance of sustainable transportation is magnified. As the government aims to become a zero carbon emission country by 2030, the role of EVs becomes integral to achieving this ambitious goal. Research specific to Indonesia, such as that by Soeparwata (2018), emphasizes the need for sustainable transportation solutions in the archipelagic nation.

2.2 Factors Influencing EV Adoption in Indonesia

2.2.1 Independent Variable

2.2.1.1 Demographics Factor

The decision to purchase Electric Vehicles (EVs) is influenced by a myriad of factors, numerous scholars believe that demographic factors play a crucial role in influencing consumers' inclination to purchase products. Researchers such as Kotler and Keller indicate a significant correlation between age, gender, education level, income, and family size with environmental behavior (Martinsons et al., 1997; Roberts & Bacon, 1997; Sang & Bekhet, 2015; Kotler,P. & Keller,K.L. (2016). Higher-income levels are thought to enable individuals to absorb the incremental costs associated with choosing eco-friendly products. Segmentation variables such as gender, age, and education are deemed influential in shaping preferences for environmentally friendly vehicles (Potoglou & Kanaroglou, 2007). A study on German consumers revealed a notable generational difference, with younger individuals displaying a preference for low-emission vehicles compared to their older counterparts (Achtnich, 2012).

2.2.1.2 Social Media Influence

The survey utilized for evaluating the material validity of the items was adapted and adjusted from various studies. Social media influence refers to the acquisition of information about Electric Vehicles (EVs) through media channels (Moons & De Pelsmacker, 2015). Individuals contemplate purchasing EVs after assessing information obtained from media sources (Khazaei & Khazaei, 2016).

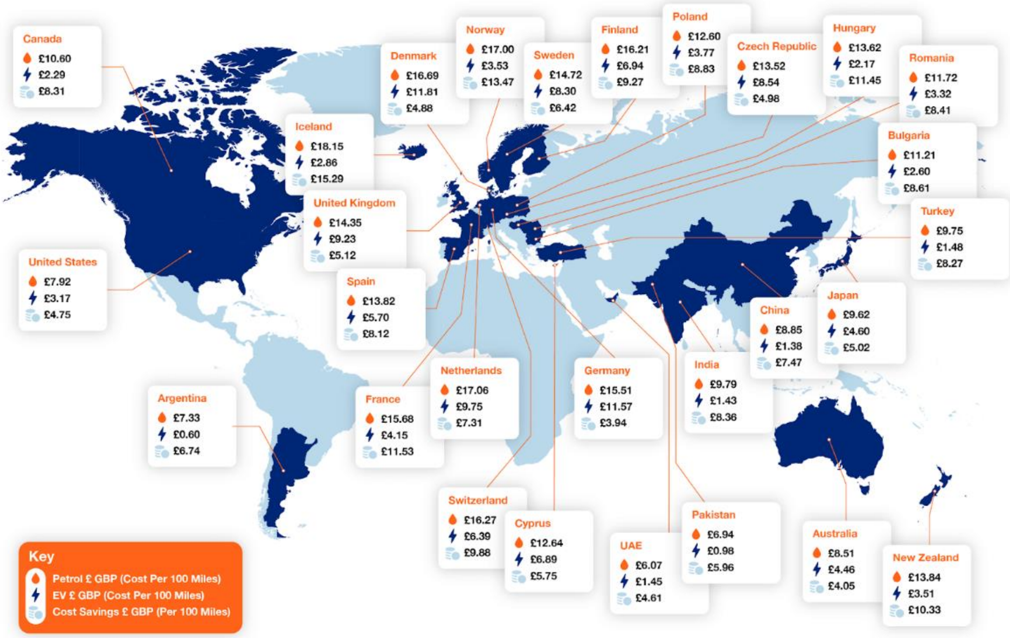
2.2.1.3 Celebrity Influence

The impact of celebrity influence is characterized by an individual's belief in the significance of their own ideas and the shared viewpoint with others regarding new technologies (Miao et al., 2014). Tan et al. (2017) argued that social standards significantly influence consumer buying behavior, with customers often depending on expert opinions to alleviate their perceptions of risk. People's actions are also influenced by the belief that society considers a particular technology usage as a norm (Khazaei & Khazaei, 2016).

2.2.1.4 Price Value

Research consistently identifies the cost of EVs as a significant factor influencing adoption decisions (Sierzchula et al., 2014; Daziano et al., 2015). High upfront costs continue to be a barrier to widespread adoption globally, despite potential long-term savings on fuel.

Electric vs petrol cost in 33 countries:



Source: Gulf Oil International

2.2.1.5 Facilitating Conditions

The availability and accessibility of charging infrastructure play a crucial role in shaping consumer perceptions of EVs (Gallagher et al., 2011). Studies emphasize the importance of a well-developed charging network in fostering EV adoption (He et al., 2017).

2.2.1.6 Environmental Consciousness

Consumers' environmental attitudes and consciousness are found to positively influence EV adoption (Franke et al., 2012). The desire to reduce carbon footprints and contribute to environmental sustainability is a recurring theme in studies exploring EV purchase motivations.

2.2.1.7 Government Incentives

Government policies and incentives, such as tax credits and subsidies, have a significant impact on EV adoption rates (Axsen & Kurani, 2013; Wichman et al., 2016). Research suggests that clear and consistent government support positively influences consumer decisions.

2.2.1.8 Product Quality

In a report on hybrid vehicles, factors related to efficiency, including convenience, quietness, driveability, and automatic transmission, were identified as highly influential in market acceptance (Razak et al., 2014; Sang & Bekhet, 2015).

2.2.2 Dependent Variables:

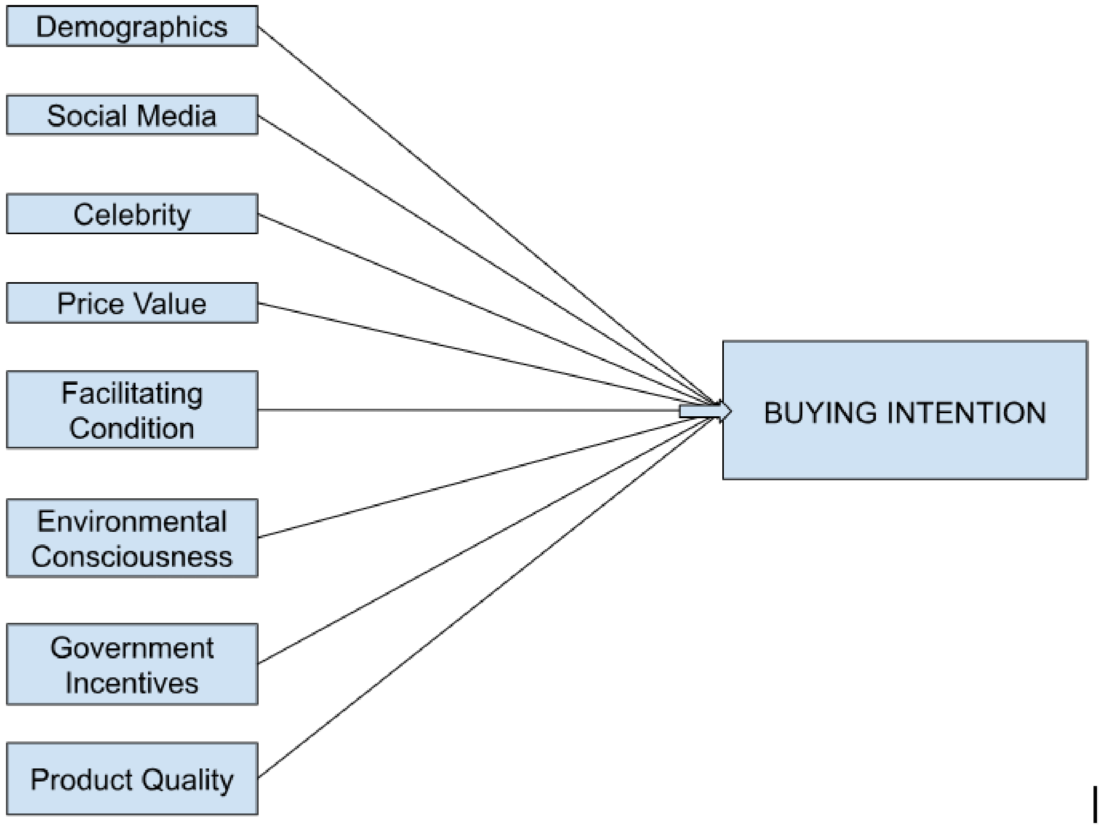
2.2.2.1 Buying Intention

The research hypothesis revolves around the concept of buying intention towards technology, specifically focusing on electric vehicles (EVs). Drawing from the works of Bagozzi (1992), Warshaw (1980), and Khazaei & Khazaei (2016), buying intention is defined as the extent to which individuals consciously plan to undertake or abstain from specific actions in the future. The central interest of this study lies in determining consumers' favorable or unfavorable sentiments regarding the adoption of electric vehicles. The primary focus is on exploring potential customers' buying intentions concerning EV technology and examining the correlation with various independent variables in the study.

2.3 Conceptual Framework

The conceptual framework synthesizes the key concepts and relationships identified in the literature review, providing a visual representation of the factors influencing EV adoption. This framework guides the development of research hypotheses and the design of empirical studies. The conceptual framework for this study incorporates demographics, social media, celebrity influence, price value, facilitating condition, environmental consciousness, government incentives and product quality processes as central elements shaping consumers' intentions to adopt electric vehicles in Indonesia.

Figure 2.1: Conceptual Framework for EV Adoption



2.4 Research Hypotheses

H1: Demographics factor Positively Influence consumer purchase decision on EV
H2: Social Media positively influence consumer purchase decision on EV
H3: Celebrity Influence positively influence consumer purchase decision on EV
H4: Price Value positively influence consumer purchase decision on EV
H5: Facilitating condition positively influence consumer purchase decision on EV
H6: Environmental consciousness positively influence consumer purchase decision on EV
H7: Government Incentives positively influence consumer purchase decision on EV
H8: Product quality positively influence consumer purchase decision on EV

3. RESEARCH METHOD

Research Method

This study employs a quantitative research approach to investigate the factors influencing consumers' purchase decisions regarding electric vehicles (EVs) in Indonesia. The research methodology is structured to systematically collect, analyze, and interpret data, providing robust insights into the determinants of EV adoption. The following sections outline the research design, data collection methods, sample selection, and data analysis techniques used in this study.

Research Design

The study adopts a descriptive research design, focusing on identifying and analyzing the key factors that influence EV purchase decisions. The research utilizes a survey-based method to gather primary data from potential and existing EV consumers in Indonesia. The survey is designed to capture information on various factors, including demographics, social media influence, celebrity endorsements, price value, facilitating conditions, environmental consciousness, government incentives, and product quality.

Data Collection

Survey Instrument

A structured questionnaire is developed to collect data from respondents. The questionnaire consists of multiple sections, each targeting specific factors identified in the literature review. The survey items are designed using a Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), to measure the extent of agreement or disagreement with statements related to each factor.

Distribution

The survey is distributed online through various channels, including social media platforms, email lists, and automotive forums, to reach a diverse and representative sample of the Indonesian population. Efforts are made to ensure the questionnaire is accessible and easy to understand, encouraging high response rates.

Sample Selection

The target population for this study includes individuals residing in Indonesia who are potential or current consumers of electric vehicles. A non-probability sampling technique, specifically convenience sampling, is used to select respondents. This method is chosen due to the practicality of reaching a large number of participants within a limited timeframe and budget. The sample size is determined based on statistical power analysis to ensure sufficient data for reliable and valid results.

Data Analysis

Linear Regression Analysis

To investigate the relationship between the identified factors and consumers' purchase intentions, a multiple linear regression analysis is performed. The dependent variable in the regression model is the purchase intention of electric vehicles, while the independent variables are the factors identified in the study: demographics, social media influence, celebrity endorsements, price value, facilitating conditions, environmental consciousness, government incentives, and product quality.

The regression analysis aims to quantify the impact of each factor on the purchase intention and to determine the relative importance of each determinant. The model's goodness-of-fit is assessed using R-squared and adjusted R-squared values, while the significance of individual predictors is evaluated through t-tests and p-values.

Validity and Reliability

To ensure the validity and reliability of the research findings, the survey instrument is pre-tested with a small sample of respondents, and necessary revisions are made based on their feedback. Cronbach's alpha is calculated to assess the internal consistency of the survey items, with a threshold value of 0.70 indicating acceptable reliability. Construct validity is established through factor analysis, ensuring that the survey items accurately measure the intended factors.

Ethical Considerations

Ethical considerations are strictly adhered to throughout the research process. Informed consent is obtained from all respondents, assuring them of the confidentiality and anonymity of their responses. Participants are informed about the purpose of the study and their right to withdraw at any time without any consequences.is relevant to theory and practice, and why the chosen method(s) are suited for the problem.

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CHAPTER 7

Analysis of the Indonesian Lifestyle Retail Industry's Financial Health Level Before and During COVID-19 Pandemic: A Case Study of PT Mitra Adiperkasa Tbk

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ABSTRACT

The COVID-19 lockdowns led to a significant decline in consumer spending and foot traffic at brick-and-mortar retail stores, resulting in notable revenue decreases for companies like PT Mitra Adiperkasa Tbk (MAPI). This study aims to evaluate the financial condition of MAPI, which is one of the largest retail firms in Indonesia. It analyzes secondary data from MAPI's annual financial reports over an 8-year period: four years before the pandemic (2016-2019) and four years during the pandemic (2020-2023), coupled with other pertinent information. The assessment involves descriptive analysis of financial ratios as well as evaluation of the company's fiscal health based on Ministry Decree No. KEP-100/MBU/2002 standards. After examining eight different financial ratios, it appears that overall, MAPI remains financially robust (A, A, AA, AA, BB, A, AA, AA). Although their stability decreased in 2020 during the initial year of Indonesia's pandemic era, they were able to rebound to an "A" rating in 2021 and achieve an enhanced "AA" rating in both 2022 and 2023—with improved scores compared to their pre-pandemic status. This comprehensive analysis not only provides valuable insights into Indonesia's retail industry but also assesses how PT Mitra Adiperkasa Tbk coped financially amidst unparalleled challenges posed by COVID-19.

Keywords: Financial Health, Financial Ratio, Decree of Ministry of State-Owned Company, Financial Ratio, Retail Industry, Pandemic, COVID-19.

INTRODUCTION

The retail sector serves as a critical component of Indonesia's economy, reflecting consumer confidence and contributing significantly to the country's GDP. PT Mitra Adiperkasa Tbk, being one of the leading lifestyle retail companies in Indonesia, is representative of the sector's vitality. MAPI operates a vast portfolio of prominent international brands, catering to a diverse market across the nation. The financial health of such a company provides valuable insights into the broader retail industry trends and economic resilience.

The COVID-19 pandemic has profoundly impacted the global economy, with Indonesia being no exception. As the virus spread, it disrupted various sectors, including transportation, tourism, trade, and healthcare, causing a decline in economic activity (Astuti & Mahardhika, 2020). The large scale restriction policy makes a significant difference in the pattern of population mobility to visit markets, supermarkets, pharmacies, and retail (Ouhsine et al, 2020).

This research analyses MAPI's financial health over a pivotal eight-year period encompassing both pre-pandemic prosperity and pandemic-induced adversity. From 2016 to 2019, the Indonesian retail sector experienced robust growth with the rise of consumer spending. However, the onset of the COVID-19 pandemic in early 2020 ushered in a period of uncertainty, marked by lockdowns and changing consumer behavior that deeply impacted brick-and-mortar retailers. MAPI’s response and adaptability during these times merit close examination.

Adopting the Ministry Decree No. KEP-100/MBU/2002 as a benchmarking standard, this study assesses the company's financial health by scrutinizing an array of financial ratios derived from MAPI's annual reports. These ratios encompass various aspects of financial performance, including liquidity, solvency, profitability, and market valuation over the specified period, establishing a comprehensive picture of MAPI’s fiscal condition before and throughout the pandemic.

This study's objective is to elucidate the financial implications of the pandemic on MAPI, while also delineating how the company's strategic financial decisions during these years allowed it to maintain, and subsequently enhance, its financial ratings post-crisis. Our analysis seeks to contribute to the literature on financial management in crisis periods, offering both a case study of MAPI's resilience and a reflection of the retail sector's adaptability in the face of global economic disruptions.

1. LITERATURE REVIEW

1.1. Financial Ratios

Financial ratios serve as a widely employed tool for analysing financial performance by connecting various figures in the financial statements. Financial ratio analysis aids in assessing and improving company performance and it should be used in conjunction with other sources of information (Dragormir, 2007). Financial ratio models predict significant corporate events and future performance (Ak et al, 2013). Financial ratios encapsulate a company's performance and signal to investors, establishing a significant relationship with stock prices as evidenced by the study (Aini et al, 2023).

Financial ratios serve multiple purposes, including assessing a firm's debt-paying ability, evaluating business and managerial success, and regulating statutory performance, ultimately becoming normative and influencing actual performance (Barnes, 1987). They are calculated using financial statement data and are essential for assessing a company's financial condition and operational results. These ratios act as indices that link two accounting numbers through division. Analysing financial ratios is imperative for gauging a company's financial performance.

Because of the large number of ratios, it is helpful to think about ratios in terms of their interest for a specific purpose and situation. Common ratio categories include activity, liquidity, solvency, profitability, and valuation. keep in mind that each ratio cannot stand alone and be exclusive; some ratios could be used to examine several aspects of the business. Analysts appropriately use certain ratios to evaluate multiple aspects of the business (Henry et. al, 2011).

Due to the multitude of ratios available, it is beneficial to consider their relevance in a particular context. Typical ratio classifications encompass activity, liquidity, solvency, profitability, and valuation. It is important to note that individual ratios do not function in isolation; certain ratios can be applied to analyse multiple facets of a business. Analysts appropriately utilize specific ratios for assessing various dimensions of a business.

1.2. Profitability Ratios

The profitability ratio is a metric designed to assess a company's ability to generate profits over a specified period, while also offering insight into the effectiveness of management in executing operational activities (Darmawan, 2020: 103). These ratios include Profit Margin, Net Profit Margin, Return on Equity, and Profit Margin (Dedi et al, 2022). Conducting a comprehensive profitability analysis is essential for accurately evaluating a company's performance, as relying solely on net income is inadequate for determining company’s operational efficiency (Rashid, 2021). It was concluded that higher profitability is indicative of high operational efficiency within a company (Vanitha & Selvam, 2010). We can conclude that a company's ability to generate profits is measured by profitability ratios, which also help evaluate management effectiveness and financial efficacy. This paper uses Return on Equity and Return on Investment ratios to understand the profitability of MAPI.

$$Return\ on\ Equity\ (ROE) = \frac{net\ income}{average\ equity}$$

$$Return\ on\ investment\ (ROI) = \frac{net\ income + interest\ (1 - tax\ rate)}{Long - term\ liabilities\ +\ Shareholders'\ equity}$$

1.3. Liquidity Ratios

The liquidity ratio is an important financial metric that helps analyse a company's ability to pay its bills and convert assets into cash (Lalithchandra, 2021). Research underscores the critical role of liquidity factors in financial performance, highlighting that liquidity crises can significantly affect market transparency and trading activities (Prakash & Sundararajan, 2023). Empirical studies also demonstrated that effective liquidity management significantly enhances a company's financial performance, thereby fostering improved profitability and sustained growth. We can conclude that effective liquidity management is vital for financial stability, enhancing profitability and growth while mitigating risks associated with liquidity crises. This paper uses Current Ratio and Cash Ratio to understand the liquidity of MAPI.

$$Cash\ Ratio = \frac{cash + cash\ equivalent}{current\ liability}$$
$$Current\ Ratio = \frac{current\ asset}{current\ liability}$$

1.4. Activity Ratios

The activity ratios measure asset management effectiveness in generating profits (Arsyad et al, 2021). Activity ratios evaluate firms' operating performance for financial success and efficient asset use increases firm value in financial productivity analysis (Dayi & Ulusoy, 2020). Activity ratio and leverage ratio significantly predict financial distress (Monea et al, 2010). We can conclude that activity ratio is an important tool to assess companies' financial performance of MAPI. This paper uses Collection Periods, Inventory Turn Over ratio and Total Asset Turn Over ratio to understand the activity of MAPI.

$$Collection\ period = \frac{accounts\ receivable}{sales: 365}$$
$$Inventory\ turnover = \frac{cost\ of\ sales}{inventory}$$
$$Total\ Asset\ Turn\ Over\ (TATO) = \frac{revenue}{capital\ employed}$$

1.5. Solvency Ratios

Solvency ratios evaluate the degree of debt financing utilized by a business and assist in determining its ability to fulfill long-term obligations (Ibendahl, 2016). These ratios measure the proportion of a company's assets that are financed through debt (Baraja & Yosya, 2019). In general, the greater the proportion of debt financing relative to equity financing, the more leveraged the firm becomes, thereby increasing the risk for its owners (Henry et al, 2012). In conculsion, solvency ratios evaluate the level of debt financing employed by a business and its ability to meet long-term obligations. These ratios quantify the proportion of assets financed by debt, highlighting that a higher debt-to-equity ratio enhances the firm's leverage and the corresponding risk for its owners. This paper uses Total Equity to Total Asset ratio to understand the solvency of MAPI.

$$Total\ Equity\ to\ Total\ Asset\ (TETA) = \frac{total\ equity}{total\ asset}$$

1.6. The Decree of Ministry of State-Owned Enterprise (SOEs)

In analysing the company’s overall health level, this paper uses the Decree of the Minister of SOEs No. KEP-100 / MBU / 2002, a nationally recognized standard coming from Indonesian Government. While primarily used to assess the financial health of state-owned enterprises, this approach can also be applied to private companies. It relies on financial ratio analysis, with the overarching goal of maximizing profits within the framework of good corporate governance practices.

According to the Decree of the Minister of SOEs 2002, the companies are categorized into Financial Services and Non-Financial Services industries, while the Non-Financial group is further divided into Infrastructure and Non-Infrastructure companies. MAPI as a Retail company fall under the Non-Infrastructure category. The health of SOEs are evaluated based on the company's performance assessment for the current year, encompassing financial, operational, and administrative aspects. This paper focuses solely on the financial aspect, and excluding the other aspects.

1.7. The Effect of COVID-19 Pandemic on Retail Condition in Indonesia

During the COVID-19 pandemic, Indonesia's retail sector faced severe challenges due to lockdowns and social restrictions. Non-essential stores experienced drastic declines in foot traffic and sales, while supermarkets initially saw a spike due to panic buying. The pandemic has led to the closure of several shopping malls, with those remaining open providing limited access to tenants. According to Budihardjo Iduansjah, Chairman of the Indonesian Shopping Center Tenant Association (Hippindo), mall visitor numbers decreased by up to 50% in the first quarter of 2020 (The Jakarta Post, 2020). By February 2020, the Retail Sales Index (RSI) had declined by 0.8% year-on-year, with retailers anticipating further drops. It was projected that the RSI would decrease by 5.4% in March 2020, accompanied by a decline in sales across all commodities. Notably, clothing sales were forecasted to fall by 45.9% year-on-year (Bank Indonesia, 2020).

The pandemic accelerated the shift to e-commerce, with platforms like Tokopedia and Shopee seeing increased activity. Traditional retailers rapidly expanded their online presence to survive. Despite government stimulus efforts, many businesses struggled with operational disruptions and logistical issues, highlighting the need for improved digital infrastructure and supply chain resilience. The crisis ultimately reshaped consumer behavior and retail strategies in Indonesia.

1.8. Mitra Adiperkasa (MAPI)

Mitra Adiperkasa (MAPI) is a prominent Indonesian retail company specializing in lifestyle brands and fashion retailing. Since its establishment in 1995, MAP has expanded significantly to become one of the nation's largest and most diversified retail conglomerates. The company operates a broad portfolio encompassing over 2,200 retail outlets across multiple sectors, including fashion, sports, food & beverage, and department stores. MAPI is renowned for its representation of prestigious international brands like Starbucks, Zara, Sephora, and Marks & Spencer, effectively catering to a wide range of consumer preferences. Through strategic expansion and strong partnerships with global brands, MAPI has established itself as a leading entity within Indonesia's competitive retail landscape.

2. RESEARCH METHOD

This paper will measure the financial performance of MAPI from the annual financial report published in Indonesian Stock Exchange Market Website. From these reports, we will obtain the and measure performance of MAPI based on the financial ratios including liquidity, solvency, activity and profitability. The study utilized secondary data sourced from the company's annual financial reports spanning an 8-year period: four years preceding the pandemic (2016-2019) and four years during the pandemic (2020-2023), supplemented by other pertinent data necessary for analyzing the company's health status. All variables employed as ratio measurement scales were extracted in accordance with regulatory guidelines, the Decree of the Minister of SOEs No. KEP-100 / MBU / 2002 including profitability performance described with ROE and ROI, liquidity performance by cash ratio and current ratio, activity performance by collection period, inventory turnover and total asset turnover, while solvency performance described by total equity to the total asset. This decree was employed to assess the financial health of enterprises categorized into levels ranging from very healthy (AAA, AA, A) to less healthy (BBB, BB, B) and unhealthy (CCC, CC, C).

3. RESULT AND DISCUSSION

3.1. Profitability Performance

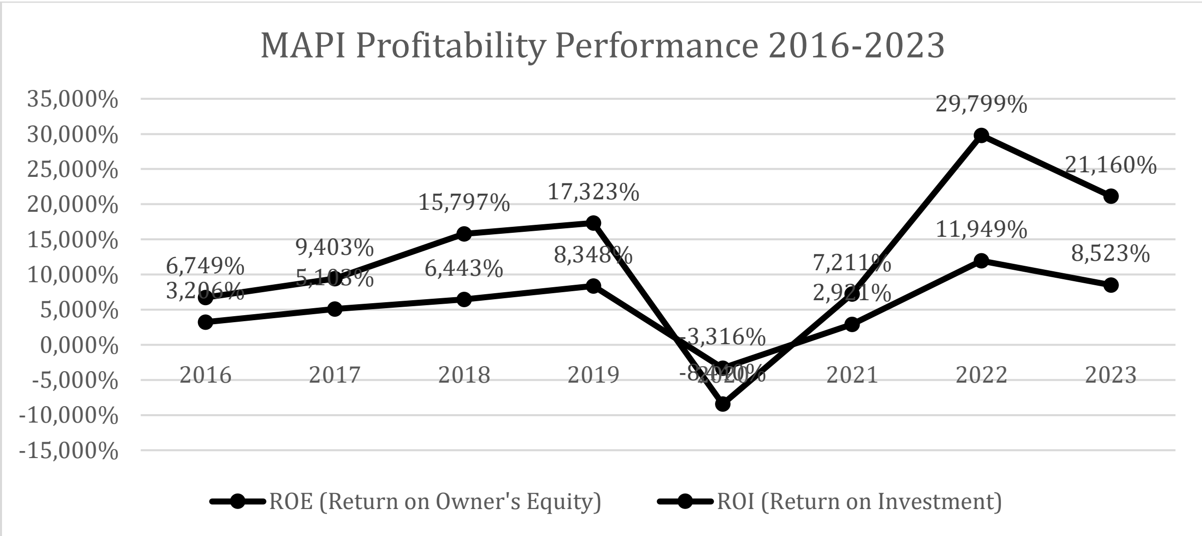

Figure 1. MAPI Profitability Performance 2016-2023

Figure 1 shows the profitability of MAPI over 8 years period 2016-2023. We can see that the company was on an upward trend for both ROE and ROI before the pandemic (2016-2019). MAPI experienced a huge dip in ROE and ROI performance in the first year of pandemic 2020, where we can see that the ROE even fall below zero. But for the next 3 years period of the COVID-19 pandemic (2021-2023) we can see that the company managed to rebound starting from 2021 and managed to achieve even better performance in 2022 compare to pre-pandemic situation. Although the performance was reduced in 2023, the ROE and ROI performance was still better than their situation before the pandemic.

3.2. Liquidity Performance

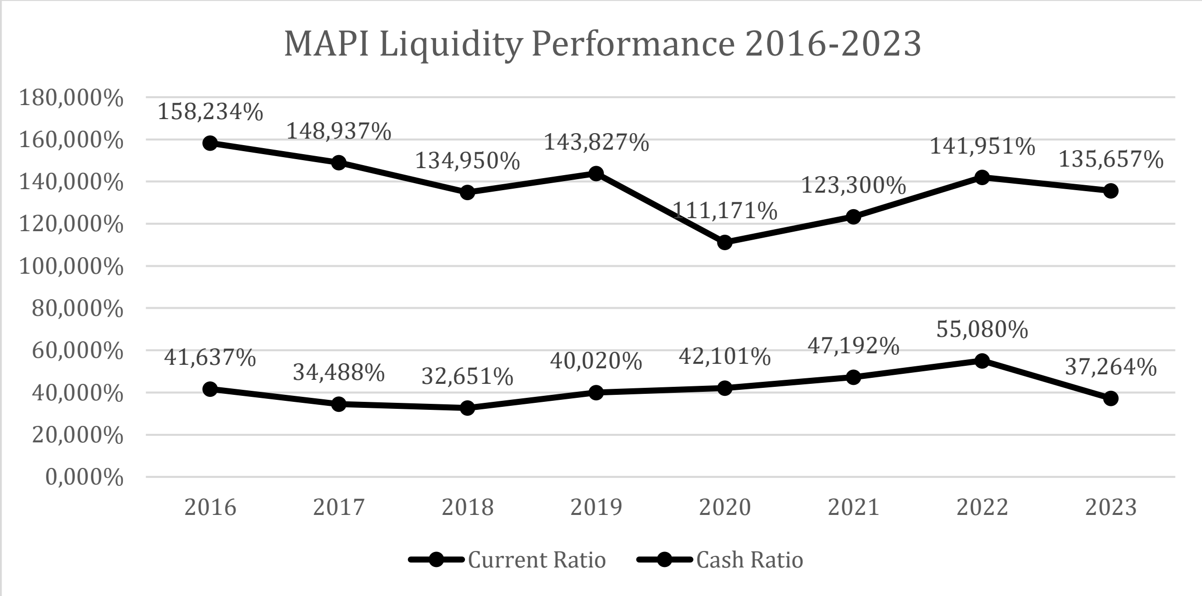

Figure 2. MAPI Liquidity Performance 2016-2023

Figure 2 shows the Liquidity of MAPI over 8 years period 2016-2023. We can see that the Cash Ratio of MAPI was maintained between 30%-55% before and during the COVID-19 Pandemic. The company even going on an upward trend starting in 2019 and peaked at 2022. This indicates that MAPI managed to maintain its cash level and have no problem in paying their short-term debt with Cash and Cash Equivalents even during the challenging situation of COVID-19 Pandemic.

Although the Current Ratio of MAPI was heavily impacted during the first year of pandemic (2019), the company can be said to be still in a good position as the Current Ratio was still maintained above 100% and the company will face no difficulties in fulfilling their short-term debt with its current assets.

3.3. Activity Performance

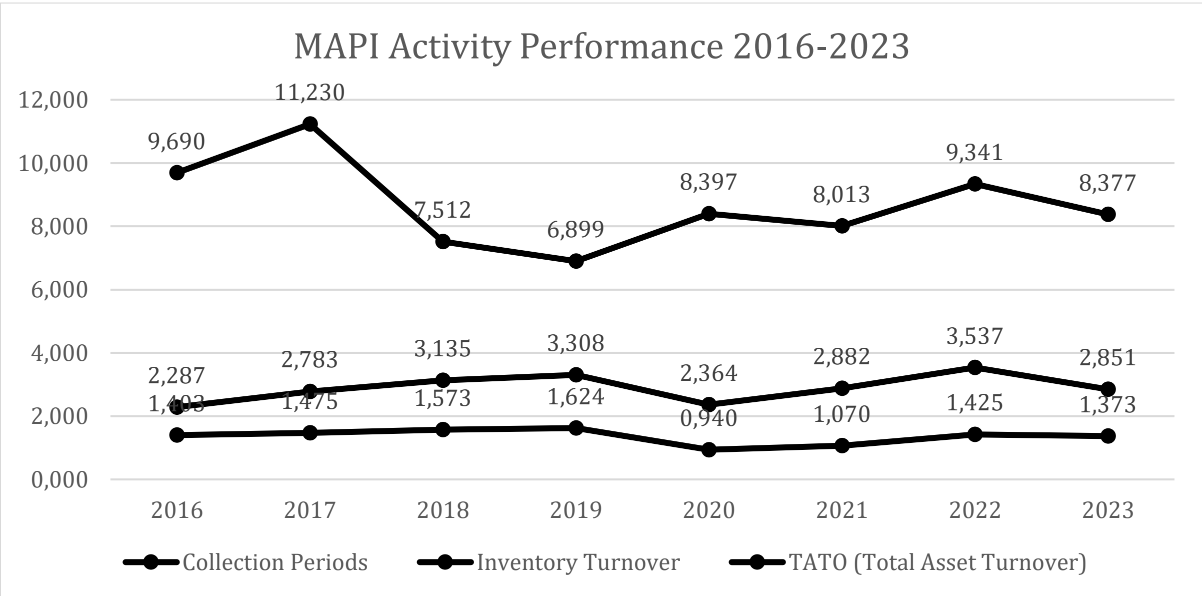

Figure 3. MAPI Activity Performance 2016-2023

Figure 3 illustrates MAPI's activity over an 8-year period from 2016 to 2023. It is evident that the Collection Period was significantly affected during the initial year of the pandemic, rising to 8,397 days in 2020 from 6,899 days in 2019. This increase indicates a prolonged duration for the company to convert Accounts Receivable into cash compared to pre-pandemic conditions, a trend that persisted through 2023, indicating that the company has not yet returned to its pre-pandemic collection efficiency.

Inventory Turnover was also affected during the initial year of the pandemic (2020), resulting in a decline to 2,364 compared to 3,308 in 2019. However, the company subsequently recovered and achieved improved Inventory Turnover rates starting in 2021, reaching a peak of 3,537 in 2022, surpassing their pre-pandemic levels. Although performance decreased to 2,851 in 2023, it still exceeded their performance in 2016-2017. This indicates that the company successfully increased sales or enhanced inventory management efficiency during the period analysed.

The data indicates that MAPI's Total Asset Turnover (TATO) was adversely affected by the COVID-19 pandemic. In 2020, TATO declined significantly to 0.940, compared to its performance of 1.624 in the previous year (2019). Although there was an upward trend subsequently, MAPI has not yet reached its peak performance observed before the pandemic. This suggests that the company has struggled to effectively utilize its assets to generate sales compared to the pre-pandemic period.

3.4. Solvency Performance

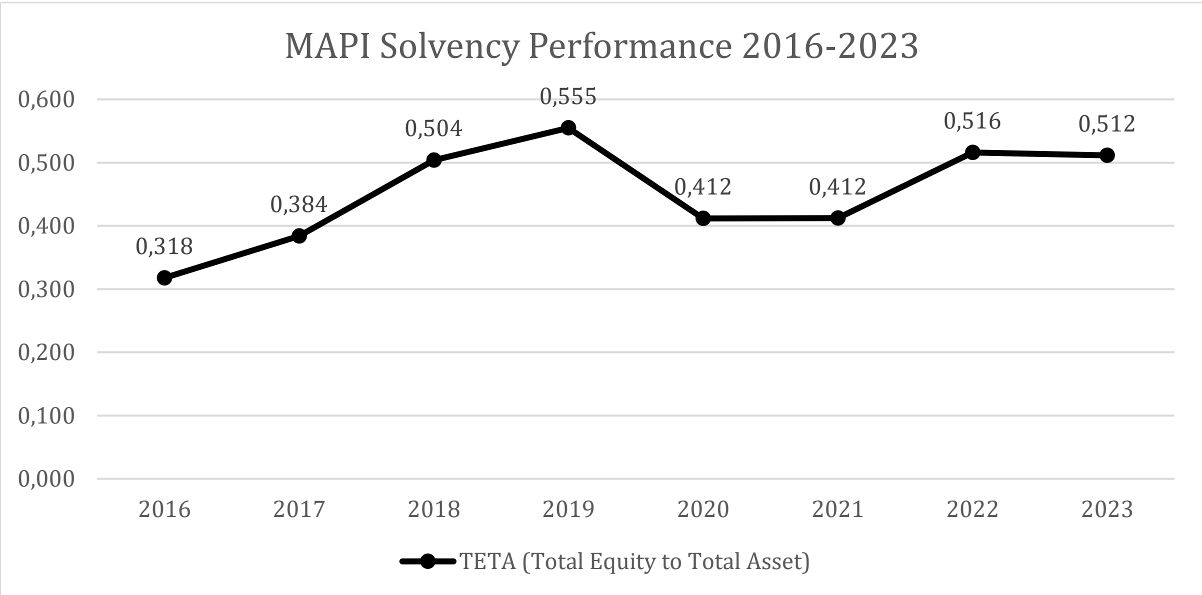

Figure 4. MAPI Solvency Performance 2016-2023

Figure 4 depicts MAPI's performance over an 8-year period from 2016 to 2023. The data reveals a significant upward trend for TETA before the COVID-19 pandemic. This trend was disrupted by the pandemic, causing TETA to decline sharply to 0.412 in 2020, a level maintained through 2021. However, the company successfully rebounded and approached pre-pandemic levels in 2022-2023. This indicates that by 2022, MAPI had efficiently utilized its total assets, nearing pre-pandemic efficiency. Overall, the TETA ratio shows a generally upward trend, reflecting the company's adequate solvency to meet its long-term obligations.

3.5. Financial Health of MAPI (2016-2023)

The author utilizes Ministry of SOEs Decree No. KEP-100/MBU/2002 as a framework to analyze MAPI's financial ratios, aiming to assess its overall financial health. While financial ratio assessments represent historical data, they remain the most dependable means to comprehensively understand the company's trajectory from the past to the present (Anthony et al, 2012). Continuous evaluation of the company's situation and status is crucial, benefiting internal enhancements, ensuring transparency for potential investors, and measuring the impacts of environmental changes within specific business periods. Initially, the assessment indicators are based on various financial ratios, each assigned a specific score. These scores are then compared against a predefined weighting scale. The resulting aggregate score determines the company's financial health rating, categorized according to criteria such as AAA, AA, A, BBB, BB, B, CCC, CC, or C.

Table 1. MAPI Financial Health in Pre-Pandemic Era (2016-2019)

	2016		2017		2018		2019	
Indicator	**Ratio**	**Score**	**Ratio**	**Score**	**Ratio**	**Score**	**Ratio**	**Score**
ROE	6,7%	10	9,4%	14	15,8%	20	17,3%	20
ROI	3,2%	4	5,1%	5	6,4%	5	8,3%	6
Current Ratio	158,2%	5	148,9%	5	135,0%	5	143,8%	5
Cash Ratio	41,6%	5	34,5%	5	32,7%	5	40,0%	5
Collection Period	9,69	5	11,23	5	7,51	5	6,90	5
Inventory Turnover	2,29	5	2,78	5	3,13	5	3,31	5
TATO	1,40	5	1,48	5	1,57	5	1,62	5
TETA	0,32	10	0,38	10	0,50	8,5	0,55	8,5
Total Score	**49**		**54**		**58,5**		**59,5**	
Weight	70		70		70		70	
Weighted Score	**70,00%**		**77,14%**		**83,57%**		**85,00%**	
Performance	**A**		**A**		**AA**		**AA**	
Category	**Healthy**		**Healthy**		**Healthy**		**Healthy**	

Table 2. MAPI Financial Health in Pandemic Era (2020-2023)

	2020		2021		2022		2023	
Indicator	**Ratio**	**Score**	**Ratio**	**Score**	**Ratio**	**Score**	**Ratio**	**Score**
ROE	-8,4%	0	7,2%	10	29,8%	20	21,2%	20
ROI	-3,3%	0	2,9%	3	11,9%	9	8,5%	6
Current Ratio	111,2%	5	123,3%	5	142,0%	5	135,7%	5
Cash Ratio	42,1%	5	47,2%	5	55,1%	5	37,3%	5
Collection Period	8,40	5	8,01	5	9,34	5	8,38	5
Inventory Turnover	2,36	5	2,88	5	3,54	5	2,85	5
TATO	0,94	4	1,07	4	1,43	5	1,37	5
TETA	0,41	9	0,41	9	0,52	9	0,51	9

Total Score	**33**	**46**	**62,5**	**59,5**
Weight	70	70	70	70
Weighted Score	**47,14%**	**65,71%**	**89,29%**	**85,00%**
Performance	**BB**	**A**	**AA**	**AA**
Category	**Less Healthy**	**Healthy**	**Healthy**	**Healthy**

Table 1 provides an overview of MAPI's financial health during the pre-pandemic period (2016-2019), consistently achieving ratings of A, A, AA, and AA. This categorization indicates MAPI's robust financial status and a stable upward trend in weighted scores over these years. In contrast, Table 2 illustrates MAPI's performance during the pandemic, showing ratings of BB, A, AA, and AA. The pandemic period reflects a significant impact on MAPI's overall financial health, highlighted by a sharp decline in its weighted score from 85% to 47.14% in 2020, which lowered its health classification to the Less Healthy (BB) category. Despite this, MAPI managed a turnaround in the second year of the pandemic, regaining a Healthy (A) rating, and returned to a Healthy (AA) rating in the subsequent years.

CONCLUSION

This research underscores the profound impact of the COVID-19 pandemic on MAPI's financial health, especially evident during the first year of the pandemic (2020). Pre-pandemic, MAPI maintained consistent financial health ratings of A, A, AA, and AA from 2016 to 2019. During the pandemic (2020-2023), these ratings shifted to BB, A, AA, and AA, indicating significant effects on all financial ratios—profitability, liquidity, activity, and solvency. The most substantial impacts were observed in profitability, activity levels, and solvency, while liquidity, though affected, remained relatively stable with Current and Cash Ratios.

Despite these challenges, MAPI demonstrated financial robustness throughout the pandemic (BB, A, AA, AA). Their financial performance dipped to "BB" (Less Healthy) in 2020 but rebounded to an "A" rating in 2021 and further improved to "AA" in 2022 and 2023. This recovery highlights MAPI's effective management and adaptive strategies in navigating the pandemic's volatile business environment, ultimately enhancing its financial position in the later years.

However, MAPI still faces ongoing challenges, as indicated by the decline in financial health in 2023 compared to the previous year. Moreover, MAPI has not yet reached pre-pandemic levels in terms of Current Ratio, Total Asset Turnover (TATO), and Total Equity Turnover (TETA).

To avoid similar situation in the future, the company should always maintain higher level of liquid assets to safeguard against future economic shocks, explore new revenue streams and also diversify business operations to reduce dependency on a limited number of markets or products.

Based on this study, the following recommendations are proposed: 1) expand the evaluation scope to include operational and administrative aspects; and 2) conduct comparative financial performance analyses with other retail companies to identify best practices and enhance MAPI's financial resilience.

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CHAPTER 8

The Impact of B20 Government Policy Implementation on The Financial Performance of Oil Palm Company, PT Salim Ivomas Pratama TBK : Year 2018 - 2023

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ABSTRACT

Oil Palm companies in Indonesia face various challenges, from environmental concerns to market volatility. European countries have also reduced imports of palm oil because they are considered to be contributing to deforestation. The Indonesian government's B20 policy, mandating a 20% blend of biodiesel in diesel fuel, aims to increase the utilization of renewable energy and reduce reliance on fossil fuels. This research evaluates whether the policy has contributed to significant changes in the financial performance to one of Indonesia's leading palm oil companies which PT Salim Ivomas Pratama Tbk since 2018 – 2022. Financial ratio analysis is a fundamental methodology for comprehensively assessing the financial performance and health of companies. Additionally, we also considers external factor such as global CPO prices and domestic economic conditions, to isolate the effects attributable to the B20 policy. The findings reveal a positive correlation between B20 policy and the financial performance of PT Salim Ivomas Pratama Tbk. Notably, the increased domestic demand of CPO driven by policy has resulted in higher revenues and improved profitability even the pandemic COVID19 situation. This research contributes to the broader understanding of how renewable energy policies can be influence corporate performance in the agribusiness sector. It provides valuable insight and analysis for goverment, industry stakeholders, and also investor regarding the economic benefits and challenges associated with the B20 policy.

Keywords: B20 Policy, PT Salim Ivomas Pratama Tbk, Financial Performance, Financial Ratio.

INTRODUCTION

The oil palm industry in Indonesia plays an important role in the national economy, being one of the largest contributors to GDP (Gross Domestic Product) and providing employment opportunities. Indonesia itself is one of the biggest contributors and exporters of CPO (Crude Oil Palm), supplying 59% of the global demand (US Department of Agriculture, 2024). The industry's rapid expansion over the past few decades has been driven by increasing global demand for vegetable oils, biofuels, and a wide range of consumer goods.

Market	% of Global Production	Total Production (2023/2024, Metric Tons)
Indonesia	59%	47 million
Malaysia	24%	19 million
Thailand	4%	3.28 million
Colombia	2%	1.9 million
Nigeria	2%	1.5 million
Guatemala	1%	920,000
Papua New Guinea	1%	820,000
Cote d'Ivoire	0.76%	600,000
Honduras	0.75%	595,000
Brazil	0.74%	585,000

Figure 1. Total Production 2023/2024 (USDA)

From figure 1, shows oil palm industry is mainly concentrated in Indonesia with 59% of production, making us as pivotal players in the global market. The significance of the oil palm industry extends beyond its economic contributions. It also presents a complex array of social and environmental impacts. On another hand, this industry also provides livelihoods for millions of smallholder farmers and workers. But, the biggest problems that face these industries are contributing deforestation, biodiversity loss, greenhouse gas emissions, having concerns about sustainability.

Over the years, the palm oil industry in Indonesia has grown even bigger and spread across all over the Indonesia region. And also with government commitment to implementing and promoting B20 policy, to respond to the challenges, especially from the EU. Among these is the B20 policy, introduced in 2016 which mandates the blending of 20% biodiesel with fossil fuel. This policy aims to reduce the country's dependence on fossil fuels, increase the utilization of renewable energy sources, and stabilize the domestic market for CPO. (APROBI, 2021)

This research aims to explore the economic implications of B20 policy on the financial performance of companies within the oil palm sector, with a specific focus on PT Salim Ivomas Pratama Tbk (SIMP) listed on the Indonesia Stock Exchange (IDX) since June 2011. By analyzing financial data from 2018 to 2022, this research focused to provide into how the

B20 policy has influenced the revenue and profitability of the company. This research also aims to analyze the impact of the pandemic COVID19 on the company during the period.

LITERATURE REVIEW

Oil Palm History in Indonesia

The oil palm *(Elaeis guineensis)* industry in Indonesia has a history from the early 20th century. Initially introduced by the Dutch colonial administration, originates from Dura palm seeds obtained from Bourbon, Mauritius, and Amsterdam by Dr. D. T. Pryce in 1848. These seeds were then used as plant collections in the Bogor Botanical Gardens (Buitenzorg Botanical Gardens). Palm oil ore from the Bogor Botanical Gardens was then distributed to various regions in Indonesia, such as Java, Madura, Sumatra, Kalimantan, Maluku, and Nusa Tenggara as ornamental plants (PASPI, 2023).

The favorable policies implemented by the government at that time stimulated the business world, including state plantations, to develop oil palm plantations, both through increasing productivity and expanding new areas. This is reflected in the rapid increase in the area of private and state plantations, which increased from only 119 thousand in 1969 to 3.9 million in 1999. CPO production also increased significantly, from only 188 thousand tons in 1969 to 6.4 million tons. in 1999, largely due to increased productivity. Apart from that, smallholder plantations are developing rapidly and oil palm plantation centers are increasingly spreading to other provinces. (Sipayung, 2024).

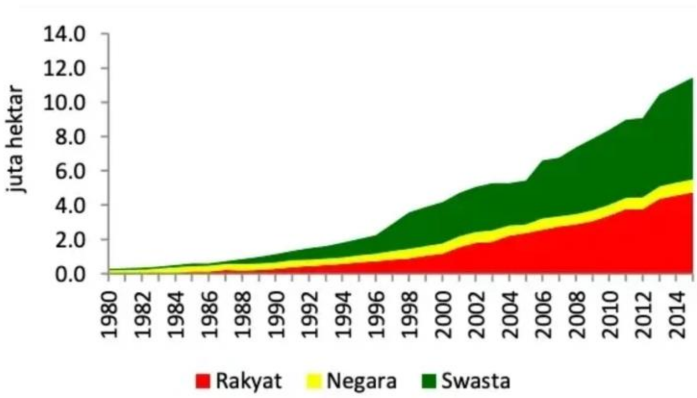


Figure 2. Production of Indonesia’s Palm Oil Plantation Area 1980 – 2015
(Source: Sipayung, 2024)

In 2000 – 2014, there were drastic changes both in the strategic environment and in the national palm oil industry. After the monetary crisis hit Indonesia in 1998, President Soeharto's regime ended and Indonesia entered a reform era. CPO production increased from around 5.2 million tons in 2000 to 11.3 million tons in 2010, proving the increasingly rapid development of the national palm oil industry. Indonesia's oil palm plantations also increased from around 300 thousand Ha in 1980 to around 11 million Ha in 2015. Meanwhile, CPO production increased from around 700 thousand tons in 1980 to 31 million tons in 2015.

The rapid growth of Indonesian CPO production is changing Indonesia's position in the world palm oil market. In 2006, Indonesia succeeded in overtaking Malaysia to become the world's largest CPO producer, and in 2015 Indonesia's share reached 53 percent of world CPO production. Meanwhile, Malaysia is in second place with a share of 33 percent.

Bioenergy policy from Indonesia's Government

Regarding on Kepmen Bappenas Nomor KEP.46/M.PPN/HK/03/2015, bioenergy is energy obtained from biological organisms or organic materials. In general, Bioenergy produces three types of energy sources, namely: biofuel (biodiesel, bioethanol), biogas, and solid biomass (wood chips, bio briquettes, and agricultural residues). Bioenergy can produce three forms of energy, namely: electricity, transportation fuel, and heat. Bioenergy is expected to be able to replace the important role of fossil energy sources which are non-renewable energy sources (Bappenas, 2015).

Figure 3. Journey of biodiesel in Indonesia (Source: Aprobi, 2021)

Peraturan Menteri ESDM Nomor 41 Tahun 2018, B20 is a government program that requires mixing 20% Biodiesel with 80% Diesel fuel, which produces Bio solar B20 products. This program has been implemented since January 2016 following the Minister of Energy and Mineral Resources (ESDM) Nomor 12 tahun 2015, concerning the Third Amendment to the Minister of Energy and Mineral Resources Regulation Nomor 32 tahun 2008 concerning the Provision, Utilization and Trading Administration of Biofuels as Other Fuels (Ministry of Energy and Mineral Resources, 2018).

RESEARCH METHODS

Research Type and Design

The purpose of this research is descriptive quantitative approaches. Descriptive quantitative approaches is an activity of collecting, managing, and then presenting observational data so that other participants can easily overview the characteristics of the object of this research.

Object of research

We use secondary data types that are quantitative descriptive approaches method in the financial report of PT. Salim Ivomas Pratama Tbk in the period of financial statements in 2018 – 2022 which were collected from the official website of PT. Salim Ivomas Pratama Tbk, namely www.simp.co.id, analyzes financial performance using the company's financial ratio analysis (FRA).

Research Target

According to Sugiyono (2013), population defined population in quantitative research as a generalization area consisting of objects or subjects that have certain quantities and characteristics set by researchers to be studied and then draw conclusions. According to Sugiyono (2013), the sample is part of the number and characteristics possessed by the population. Determination of the number of samples in this study refers to the nature of the population. Descriptive Financial Ratio Analysis (FRA) such as Liquidity Ratio, Activity Ratio, Solvency Ratio, and Profitability Ratio was used as an assessment tool to describe the conditions of the company.

Data Analysis Technique

The analytical technique used is quantitative analysis. Quantitative analysis is a research method that uses data processing in the form of numbers as a tool to analyze and conduct research. There are eleven indicators to be measured, which are the current ratio, quick ratio, cash ratio, total assets turnover ratio, inventory turnover ratio, fixed assets turnover ratio, debt to assets ratio, debt to equity ratio, return on investment, return on equity, and net profit margin.

The Liquidity Ratio is used to measure a company's ability to meet its short-term obligations using its most liquid assets. These ratios are crucial for assessing the financial health and operational efficiency of a company in the short term. This ratio is also to know how the company can meet its current or maturity obligations. This ratio can also measure the company's ability to return money to depositors promptly if they want to take it at any time (Daryanto et al., 2019).

The Profitability Ratio are financial metric used to assess a company's earnings relative to its revenue, assets, equity, and other financial metrics. These ratios provide insights into a company's operating efficiency, performance, and overall financial health. Profitability performance is an indicator of shareholders that is used to see and predict how much the company's ability to generate income from any capital used. This indicator is expressed by ROA (Return On Asset), ROE (Return On Equity), and NPM (Net Profit Margin).

The Solvability Ratio, also known as the solvency ratio, measures a company's ability to meet its long-term obligations and ensure financial ability over the long term. Solvability relates to the company's ability to pay interest costs and the repayment schedule associated with its long-term obligations. This ratio is used as an assessment tool in describing the company's conditions. In this research method, indicators that represent the solvability ratio are DAR (Debt to Asset Ratio) and DER (Debt to Equity Ratio), the result of which will help companies use debt efficiently to support financial performance.

The Activity Ratio, also known as an efficiency ratio is a financial metric used to measure how effectively a company uses its assets to generate revenue. There are three common activity ratios, such as Inventory Turnover Ratio, Receivables Turnover Ratio, and Total Asset Turnover Ratio.

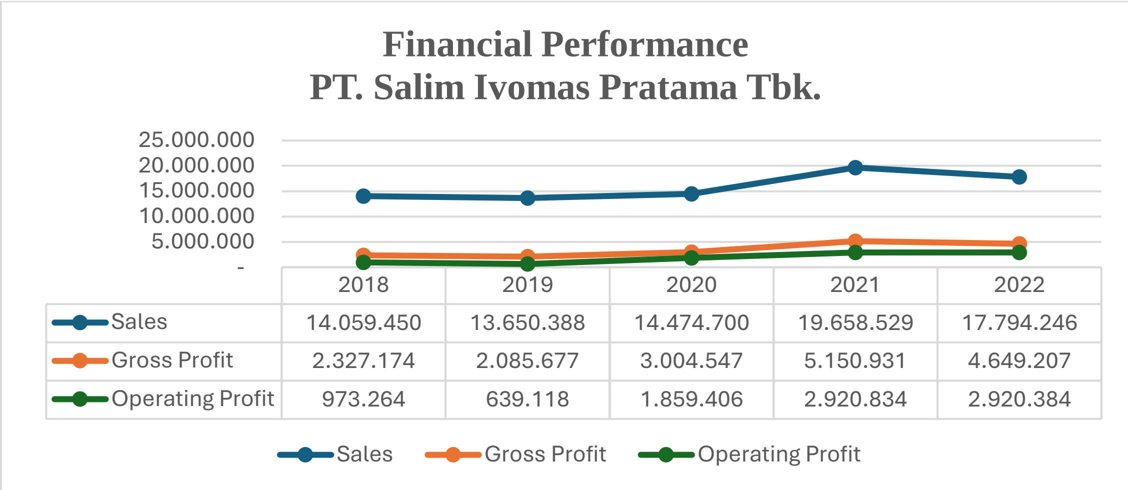
RESULTS & DISCUSSION

In this research, the financial report data will be prepared and analyzed by the author, so that the company's performance can be known. There were several tables and graphs generated that showed the financial performance of PT Salim Ivomas Pratama Tbk which included the Liquidity Ratio, Solvency Ratio, and Profitability Ratio for the period 2018 to 2022.

Financial Performance

The net profit of the palm oil company and its derivative products, PT Salim Ivomas Pratama Tbk (SIMP), jumped by 320 percent to IDR 984 billion in 2021, compared to the 2020 period.

The increase in net profit was mainly due to an increase in operating profit and a decrease in financial expenses, which was partially offset by an increase in income tax expenses. The company's gross profit was recorded at IDR 5.15 trillion, up 71 percent on an annual basis (year on year/yoy). Meanwhile, the resulting operating profit reached IDR 2.9 trillion, an increase of 64 percent. (Annual Report of SIMP, 2021).



	2018	2019	2020	2021	2022
Sales	14.059.450	13.650.388	14.474.700	19.658.529	17.794.246
Gross Profit	2.327.174	2.085.677	3.004.547	5.150.931	4.649.207
Operating Profit	973.264	639.118	1.859.406	2.920.834	2.920.384

Figure 4. Financial Performance PT Salim Ivomas Pratama Tbk., 2018 – 2022 (Authors, 2024)

Based on figure 4. the financial performance of PT. Salim Ivomas Pratama Tbk. over a period of five years from 2018 to 2022 (in a million), focusing on three parameters Sales, Gross Profit, and Operating Profit. Sales have shown a generally upward trend over the five years. Sales remained relatively stable with a slight decrease from 14.059.450 in 2018 to 13.650.388 in 2019, but there was a minor increase to 14.474.700 in 2020 even after the COVID-19 outbreak but no effect on sales performance in that year. In 2021, sales have a significant jump to 19.658.529 because demand for palm oil-based products has experienced an increase in prices due to limited supply due because of pandemic COVID19.

In 2022, slightly decreased to 17.794.246 in 2022 but remained higher than in the earlier years. Gross Profit has followed a more fluctuating pattern, decreasing from 2,327,174 in 2018 to 2.085.677 in 2019. But, a significant increase to 3,004,547 in 2020, then continued to increase to 5,150,931 in 2021, the highest over the five years. In 2022, the Gross Profit has decreased to 4,649,207 in 2022. Operating Profit also exhibits fluctuations, in the same patterns as Sales and Gross Profit. In 2018-2019, Significant drop from 973,264 to 639,118. The significant increase to 1,859,406 in 2020. The Operating Profit is already at its peak of 2,920,834 in 2021, but in 2022 the Operating Profit has slightly decreased to 2,920,384.

There was a notable increase in sales from 2020 to 2021, possibly indicating a successful strategy or favorable market conditions during that period. Gross Profit its peak in 2021, aligning with the highest sales figure, suggesting efficient cost management during that year.

The Operating Profit follows a similar trend to Gross Profit, with significant growth peaking in 2021. The financial performance of PT. Salim Ivomas Pratama Tbk. shows growth and improvement in both sales and profits over the observed period, with significant peaks in 2021. The fluctuations in Gross and Operating Profits indicate variations in cost management and operational efficiency.
The performance in 2022 suggests a potential challenge or market change impacting performance. Overall, the company has demonstrated resilience and growth, particularly noticeable in the 2020-2021 period.

Profitability Ratio

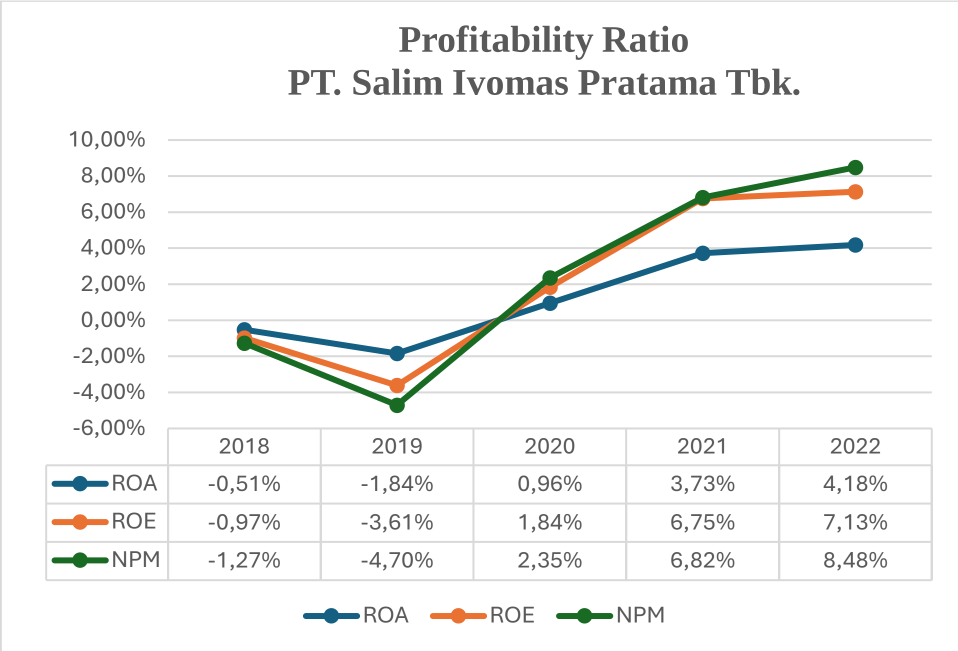


Figure 5. Profitability Ratio PT Salim Ivomas Pratama Tbk., 2018 – 2022 (Authors, 2024)

According to Figure 5. shows the profitability ratios of PT Salim Ivomas Pratama Tbk. We can see from the graph, that ROA (Return On Asset), ROE (Return On Equity), and NPM (Net Profit Margin) ratios are run into similar curves. Three of the ratios dropped in 2019, but getting better and peaked in 2022. ROA has shown significant improvement over the observed period. ROA was negative in 2018 - 2019, with -0.51% in 2018 and a further drop to -1.84% in 2019. But, then ROA turned positive to 0.96% in 2020 and continued to increase to 3.73% in 2021. ROA further improved to 4.18% in 2022. ROE has also shown considerable improvement. In 2018-2019, ROE was negative, with -0.97% in 2018 and dropping to -3.61% in 2019. But it's turned positive to 1.84% in 2020. This parameter has a significant increase to 6.75% in 2021 and continued to rise to 7.13% in 2022. NPM followed a similar pattern of improvement. NPM was negative, with -1.27% in 2018 dropping a lot to -4.70% in 2019. But these parameters turned positive to 2.35% in 2020, increased to 6.82% in 2021, and getting better to 8.48% in 2022. The company experienced negative profitability ratios in 2018 and 2019, indicating losses during these years. However, there was a significant turnaround starting in 2020. All three profitability ratios: ROA, ROE, and NPM have turned positive in 2020 and continued to improve in the subsequent years, reflecting enhanced operational efficiency and profitability. The most significant improvements were observed in 2021 and 2022, indicating strong financial performance and effective strategies implemented by the company during these years. The profitability ratios of PT. Salim Ivomas Pratama Tbk. depict a company that has successfully turned around its financial performance from negative profitability in 2018 and 2019 to positive and growing profitability in the subsequent years. The value increase in ROA, ROE, and NPM from 2020 onwards suggests that the company has effectively managed its assets, equity, and profit margins, leading to a robust financial position by 2022. This positive trend reflects improved operational efficiency and successful strategic initiatives.

Liquidity Ratio

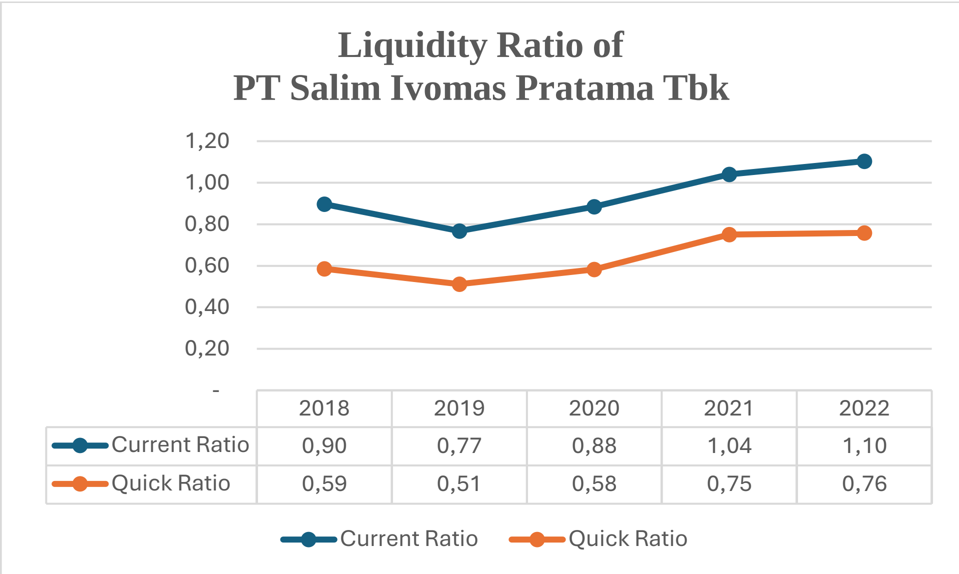


Figure 6. Liquidity Ratio PT Salim Ivomas Pratama Tbk., 2018 – 2022 (Authors, 2024)

The figure 6. shows the trends of the Current Ratio and Quick Ratio for PT Salim Ivomas Pratama Tbk from 2018 to 2022. The Current Ratio measures the company's ability to pay off its short-term liabilities with its short-term assets. A higher ratio indicates better liquidity. There is a decrease in the Current Ratio from 2018 to 2019, indicating a weakening liquidity position during this period, which can be caused by the pandemic COVID-19 outbreak. From 2019 to 2020, the company succeeds in increasing from 0.77 to 0.88, suggesting an improvement in the company's ability to cover short-term liabilities. There is a significant increase in 2021, indicating that the company has more than enough short-term assets to cover its short-term liabilities. In 2022, the company continues to increase to 1.10, showing further improvement in liquidity. The increasing trend from 2019 to 2022 reflects a positive development in liquidity management. A ratio above 1 in 2021 and 2022 indicates a strong liquidity position, suggesting that the company can comfortably meet its short-term obligations.

The Quick Ratio (or Acid Test Ratio) measures the company's ability to pay off its short-term liabilities without relying on the sale of inventory. It is a stricter measure of liquidity compared to the Current Ratio. There is a decrease in the Quick Ratio from 2018 to 2019, indicating a deterioration in the ability to cover short-term liabilities with the most liquid assets. The ratio increases slightly from 2019 to 2020 and significantly increases from 2021 and 2022, suggesting a much better liquidity position. The significant improvement from 2019 to 2021 shows that the company has been effectively improving its liquidity position.
The graph indicates that PT Salim Ivomas Pratama Tbk has made significant strides in improving its liquidity position, especially from 2020 onwards, and it is in a relatively strong position as of 2022.

Solvability Ratio

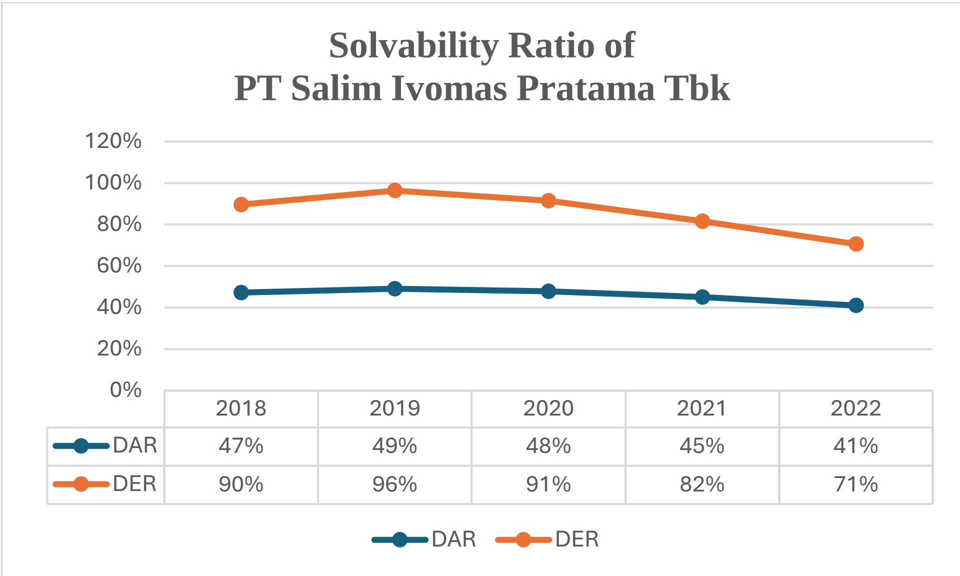


Figure 7. Solvability Ratio PT Salim Ivomas Pratama Tbk., 2018 – 2022 (Authors, 2024)

The figure 7. shows the trends of the Debt to debt-to-asset ratio (DAR) and Debt to debt-to-equity ratio (DER) for PT Salim Ivomas Pratama Tbk from 2018 to 2022. The Debt to Asset Ratio measures the proportion of a company's assets that are financed by debt. It indicates the level of financial leverage and risk. The DAR increased slightly from 47% to 49% from 2018 to 2019, indicating a slight increase in the proportion of assets financed by debt. The ratio decreased marginally to 48% in 2020, suggesting a small reduction in leverage. The ratio further decreased to 45%, indicating a continued reduction in the use of debt to finance assets in 2021. The ratio dropped to 41%, reflecting a significant reduction in financial leverage in 2022.
The decreasing trend in the DAR from 2019 to 2022 indicates a reduction in the company's reliance on debt to finance its assets, which could imply lower financial risk and improved financial stability. A lower DAR suggests better asset coverage and potentially lower interest expenses, which can positively impact profitability.

The Debt to debt-equity ratio measures the proportion of a company's debt to its shareholders' equity. It indicates the degree of financial leverage and the risk to shareholders. The DER increased from 90% to 96% in 2019, indicating a higher proportion of debt compared to equity.

The ratio decreased to 91%, suggesting a reduction in leverage in 2020. The ratio further decreased to 82%, indicating a continued reduction in financial leverage in 2021. And then the ratio dropped to 71% in 2022, reflecting a significant reduction in debt relative to equity.

Figure 4, indicates that PT Salim Ivomas Pratama Tbk has been successfully reducing its financial leverage from 2019 to 2022, leading to improved solvency and reduced financial risk. This trend is positive for the company's long-term financial health and stability.

Activity Ratio

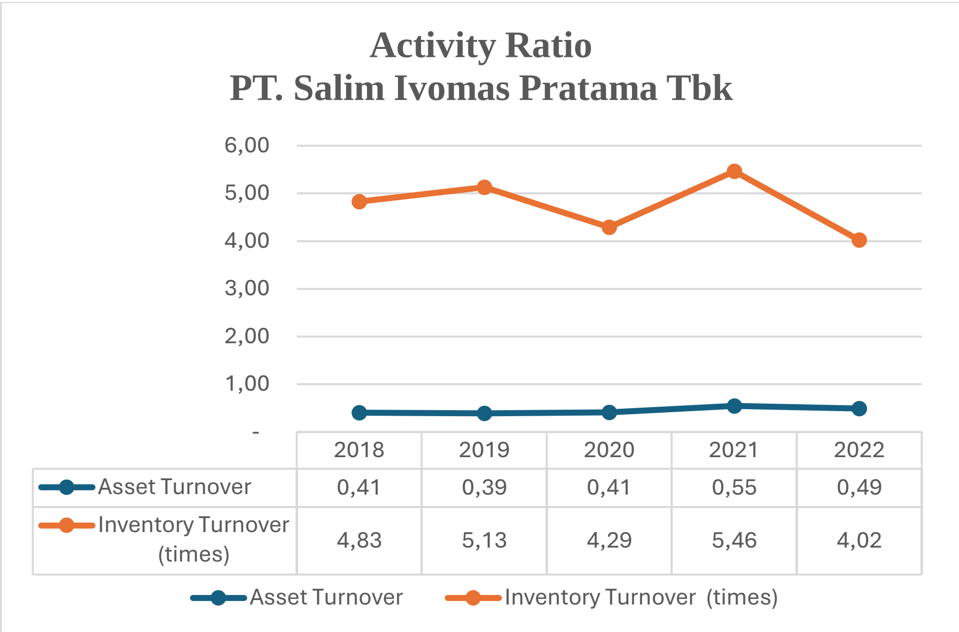


Figure 8. Activity Ratio PT Salim Ivomas Pratama Tbk., 2018 – 2022 (Authors, 2024)

Based on figure 8. figure shows the trends of the Asset Turnover Ratio and Inventory Turnover Ratio for PT Salim Ivomas Pratama Tbk from 2018 to 2022. The Asset Turnover Ratio measures how efficiently a company uses its assets to generate sales. It indicates the productivity of the company’s assets. The ratio decreased slightly from 0.41 to 0.39 in 2019, indicating a slight decline in asset efficiency. Asset Turnover Ratio increased back to 0.41 in 2020, showing a recovery in asset utilization, and then increased significantly to 0.55 in 2021, indicating improved efficiency in using assets to generate sales. However, the Asset Turn Over Ratio has decreased to 0.49, suggesting a slight decline in efficiency but still higher than the levels seen in 2022. The significant increase in 2021 indicates that the company was able to generate more sales per unit of asset. The decline in 2022, while still maintaining higher efficiency compared to earlier years, suggests a need to monitor and possibly enhance asset utilization strategies.

The Inventory Turnover Ratio measures how efficiently a company manages its inventory by comparing the cost of goods sold to the average inventory. It indicates how often inventory is

sold and replaced over a period. The ratio increased from 4.83 to 5.13 in 2019, indicating improved inventory management and faster turnover, then the ratio decreased to 4.29 in 2020, suggesting a slower turnover and potential overstocking issues.
The ratio increased significantly to 5.46 in 2021, showing improved efficiency in managing and selling inventory, but in 2022 the ratio decreased to 4.02, indicating a slower turnover similar to 2020.
The graph indicates that PT Salim Ivomas Pratama Tbk has seen improvements in asset and inventory management, particularly in 2021. However, the fluctuations highlight the need for continuous monitoring and optimization strategies to maintain and enhance efficiency.

Financial Performance Analysis during COVID-19 period (2020 – 2021)

PT Salim Ivomas Tbk has remarkable improvement in sales, gross profit, and operating profit, during 2020 - 2021 being a peak year. This indicates increasing in demand and prices for palm oil products during COVID-19 pandemic and significantly improved and peak on 2021 but slightly down in 2022 when government announce COVID-19 endemic.
Impact of COVID-19 has increasing demand for food industry and hygiene products, because of increasing demand, selling price is also increasing. This situation makes the sales managed to achieve a slight increase from 13,650,388 million in 2019 to 14,474,700 million in 2020 and peak in 2021, sales have a significant jump to 19.658.529. This resilience can be attributed to continued demand for palm oil-based products, which remained stable even during global disruptions.

CONCLUSION

Financial Performance Analysis from 2018-2022, we can have analysis from some ratios that we have. From Profitability Ratios, we can see Return on Assets (ROA) has improved from -5.13% in 2018 to 4.18% in 2022, indicating better utilization of assets to generate profit.
Return on Equity (ROE) already improved from -9.73% in 2018 to 7.13% in 2022, reflecting enhanced profitability and returns to shareholders. Net Profit Margin (NPM) has increased from -1.26% in 2018 to 8.48% in 2022, indicating a significant improvement in profitability. From Liquidity Ratios, we have several ratios that can be analyzed. The current Ratio of PT Salim Ivomas Tbk has improved from 0.89 in 2018 to 1.10 in 2022, indicating an enhanced ability to cover short-term liabilities with short-term assets. The quick Ratio has improved from 0.58 in 2018 to 0.75 in 2022, reflecting better short-term liquidity. Solvency Ratios, containing Debt to Asset Ratio (DAR), decreased from 47% in 2018 to 41% in 2022, showing reduced reliance on debt for asset financing. Debt to Equity Ratio (DER) also decreased from 90% in 2018 to 70% in 2022, indicating a stronger equity base and lower financial risk. From Activity Ratios, we can analyze that Asset Turnover Ratio has increased from 0.40 in 2018 to 0.49 in 2022, showing better efficiency in using assets to generate sales. Inventory Turnover Ratio has fluctuated, peaking at 5.46 in 2021 before declining to 4.02 in 2022, indicating variability in inventory management efficiency.

The B20 policy, which mandates a 20% blend of biodiesel with diesel fuel, has had several positive impacts on PT Salim Ivomas Pratama Tbk, such as increased domestic demand. The policy has boosted domestic demand for palm oil, a key ingredient in biodiesel, positively affecting the company's sales and profitability from Rp. 14 trillion in 2018 become Rp. 17,7 trillion in 2022. By creating a steady domestic market for CPO (Crude Palm Oil), the policy has helped stabilize prices, reducing exposure to global market volatility. The company has optimized its operations to meet the increased demand for biodiesel, leading to improved efficiencies and profitability. The COVID-19 pandemic posed significant challenges, but PT Salim Ivomas Pratama Tbk managed to navigate these effectively. Despite potential disruptions, the company maintained a strong liquidity position, as evidenced by improvements in liquidity ratios. While there were initial declines in profitability in 2019, the company's financial performance rebounded strongly in 2020 and continued to improve.

PT Salim Ivomas Pratama Tbk has demonstrated resilience and adaptability, showing significant improvements in liquidity, solvency, activity, and profitability ratios over the 2018-2022 period. The B20 policy has provided a favorable environment for growth, and the company has effectively managed the challenges posed by the COVID-19 pandemic.

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CHAPTER 9

Post-Pandemic Financial Performance: A Comparative Analysis of PT. Telekomunikasi Negara Tbk (TLKM) And Competitor in The Indonesian Telecommunications Sector for Years 2022-2023

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ABSTRACT

This study analyses the financial performance of PT. TELEKOMUNIKASI NEGARA Tbk (TLKM) after the pandemic, specifically for the years 2022-2023. It also compares TLKM's performance with that of its main competitor in the Indonesian telecommunications market, PT. Indosat Tbk (ISAT). An analysis of financial ratios, such as Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Total Asset Turn Over (TATO), Fixed Asset Turn Over (FATO), Debt to Equity Ratio (DER), and Current Ratio (CR), is conducted using financial data from 2022-2023. This analysis aims to evaluate the profitability, efficiency, and overall financial well-being of the companies in the post-COVID-19 pandemic period. This study utilized secondary data from annual public financial reports, which were obtained from the Indonesia Stock Exchange (IDX). The study utilizes ratio analysis and benchmarking approaches to evaluate the performance of PT. TELEKOMUNIKASI NEGARA Tbk in comparison to its competitors. Ratio analysis entails the computation and comparison of financial ratios of organizations to detect patterns and pinpoint areas that need enhancement. On the other hand, benchmarking involves comparing the financial ratios of companies with those of their competitors to evaluate their relative performance. The findings indicate that, according to the financial ratios utilized in this study, all 7 financial ratios demonstrate that TLKM has exhibited superior financial performance and competitive standing compared to ISAT after the pandemic. This research assists stakeholders and industry analysts in comprehending the company's ability to withstand challenges and its methods for achieving growth in the current circumstances.
Keywords: Analysis, Financial Performance, Telecommunications Sector, Post Covid-19.

1. INTRODUCTION

The COVID-19 pandemic had a profound impact on global economies, with industries facing unprecedented challenges and transformations. The telecommunications sector, essential for maintaining connectivity during lockdowns, experienced both pressures and opportunities for growth (OECD, 2020). This study examines the post-pandemic financial performance of PT. Telekomunikasi Negara Tbk (TLKM), focusing on the years 2022-2023. The objective is to compare TLKM's financial health and performance with key competitors in the Indonesian telecommunications sector, namely PT. Indosat Tbk (ISAT), to understand how these companies have navigated the post-pandemic landscape.

The primary issue addressed in this study is the need to evaluate the resilience and strategic responses of leading telecommunications companies in Indonesia in the aftermath of COVID-19. This evaluation is crucial for stakeholders and industry analysts to understand each company's ability to adapt and thrive in the new normal. The scope encompasses financial data from 2022-2023, examining key financial ratios such as including Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Total Asset Turn Over (TATO), Fixed Asset Turn Over (FATO), Debt to Equity Ratio (DER) and Current Ratio (CR). These metrics are critical for assessing profitability, efficiency, and overall financial health (Brigham & Ehrhardt, 2014; Pandey, 2015).

The methodology involves a detailed ratio analysis and benchmarking. Ratio analysis entails calculating and comparing the financial ratios of TLKM and ISAT to identify trends and areas for improvement. Benchmarking involves comparing these companies' financial ratios against industry averages to assess their relative performance. This approach provides a comprehensive view of each company's financial health and competitive position (Ross et al., 2016; Fitzgerald et al., 2014).

This study uses descriptive statistical components processed with statistical software. The research was taken using specific criteria such as consistent quarterly financial reporting (Suwandana, 2017). The significance of this study is underscored by the critical role of telecommunications in enabling digital transformation and economic recovery post-pandemic (Cisco, 2020; Verhoef et al., 2021). Understanding the financial performance of these companies provides valuable insights into their strategic positioning and growth prospects in the evolving digital landscape. By evaluating TLKM's resilience and growth strategies, stakeholders can make more informed decisions regarding investments and strategic planning in the telecommunications sector.

2. LITERATURE REVIEW

2.1 PT. Telekomunikasi Negara Tbk (TLKM)

PT. Telekomunikasi Negara Tbk (TLKM), commonly known as Telkom Indonesia, was established in 1965. It is the largest telecommunications company in Indonesia and is partly owned by the government. TLKM has played a significant role in the development of the country's telecommunication infrastructure, providing a wide range of services including fixed-line and mobile telephony, internet, and data communication (Telkom Indonesia, 2023).

The company's history is marked by significant milestones in the Indonesian telecommunications industry. In the 1980s and 1990s, TLKM expanded its services nationwide, and in the 2000s, it transitioned to digital technology and internet services. The company launched its mobile subsidiary, Telkomsel, which has become the largest mobile operator in Indonesia. In recent years, TLKM has focused on digital transformation, investing heavily in fiber optics, 4G, and 5G networks, and expanding its digital service offerings, including cloud computing and data centers (KPPU, 2021; Telkom Indonesia, 2023).

2.2 PT. Indosat Tbk (ISAT)

PT. Indosat Tbk (ISAT), also known as Indosat Ooredoo Hutchison, was established in 1967. Initially, it provided international telecommunications services, but over the years, it expanded to offer a full range of telecommunication services, including mobile, fixed-line, and internet services. In 2003, Indosat merged with Satelindo and IM3, further strengthening its market position in Indonesia (Indosat, 2022).

In 2013, Qatar's Ooredoo Group acquired a majority stake in Indosat, rebranding the company as Indosat Ooredoo. The company has focused on enhancing its network quality and expanding its 4G coverage. In 2021, Indosat merged with Hutchison 3 Indonesia, forming Indosat Ooredoo Hutchison, which aims to accelerate digital transformation and innovation in the Indonesian telecommunications sector (Indosat, 2023).

2.3 Financial Ratios

Financial ratios are quantitative tools that provide insights into a company's financial performance and health by analyzing relationships between different financial statement figures. These ratios are essential for stakeholders, including investors, analysts, and managers, as they offer a concise way to evaluate a company's operational efficiency, profitability, liquidity, and solvency. By examining these ratios, stakeholders can make informed decisions regarding investment, lending, and management strategies (Brigham & Houston, 2019). Financial ratios help in comparing a company's performance over different periods and against industry benchmarks, highlighting strengths and potential areas of improvement.

Financial ratios are categorized into several types based on the aspect of financial performance they measure, including profitability ratios, liquidity ratios, leverage ratios, and efficiency ratios. Each type of financial ratio provides different insights and impact entails it. Thus, each ratio collectively offers a comprehensive understanding of a company's financial health and indicates how effectively a company utilizes its assets and manages operations (Wild, Subramanyam, & Halsey, 2021).

2.4 Types of Financial Ratios

Financial ratios can be categorized into several types based on the aspect of financial performance they measure. The categories of ratios included profitability ratios, liquidity ratios, leverage ratios, and efficiency ratios. Each type of ratio provides different insights into a company's financial health and performance.

1. Profitability Ratios

Profitability ratios assess a company's ability to generate profit relative to its revenue, assets, equity, and other financial metrics. Key profitability ratios include:

- Return on Assets (ROA)
  Assesses the efficiency with which a corporation utilizes its assets to generate profit. Return on Assets (ROA) is determined by dividing the Net Income by the Total Assets. A higher ROA indicates better efficiency in asset utilization (Brigham & Ehrhardt, 2014).

- Return on Equity (ROE)
  Indicates the return on shareholders' equity investments. It shows how well a company generates profit from shareholders' funds. Return on Equity (ROE) is determined by dividing the company's Net Income by its Shareholders' Equity. A higher ROE suggests greater profitability and efficiency in using equity capital (Pandey, 2015).

- Net Profit Margin (NPM)
  Indicates the proportion of income that remains as net profit after subtracting all expenses. NPM is calculated as Net Income divided by Revenue. It is a key indicator of a company's profitability. A higher NPM indicates better cost management and pricing strategies (Brigham & Ehrhardt, 2014).

2. Liquidity Ratios

Liquidity ratios assess a company's capacity to fulfill its immediate financial obligations by utilizing its most easily convertible assets, these ratios are crucial for assessing a company's short-term financial health and its capacity to maintain operations during financial stress (Cashmere, 2015: 113). Key liquidity ratios include:

- Current Ratio (CR)
  Evaluates a company's capacity to settle its immediate debts using its current assets. CR is determined by dividing the total value of Current Assets by the total value of Current Liabilities. A higher ratio suggests better liquidity and financial stability (Pandey, 2015).

- Cash Ratio
  Similar to the current ratio but more stringent, it assesses a company's ability to pay short-term liabilities with its most liquid assets. The Cash Ratio is calculated as Cash and Cash Equivalents divided by Current Liabilities. A higher cash ratio indicates strong liquidity and a conservative approach to financial management (Ross et al., 2016).

3. Leverage Ratios

Leverage ratios, also known as solvency ratios, evaluate the extent of a company's financial leverage and its ability to meet long-term obligations. These ratios help assess the financial risk associated with the company's debt levels. Key leverage ratios include:

- Debt to Equity Ratio (DER)

  Assesses a company's financial leverage by comparing its total liabilities to shareholders' equity. DER is calculated as Total Liabilities divided by Shareholders' Equity. A higher ratio indicates higher financial risk, as the company relies more on debt financing (Brigham & Ehrhardt, 2014).

- Interest Coverage Ratio (ICR)

  Measures a company's ability to pay interest on its debt. It is calculated as Earnings Before Interest and Taxes (EBIT) divided by Interest Expense. A higher ratio indicates a better ability to cover interest payments and lower financial risk (Ross et al., 2016).

4. Efficiency Ratios

Efficiency ratios indicate how well a company utilizes its assets and manages its operations. These ratios help in assessing operational efficiency and the effectiveness of the company's asset management. Key efficiency ratios include:

- Total Asset Turnover (TATO)

  Calculates the level of efficiency with which a corporation utilizes its overall assets to create revenue. TATO is calculated as Revenue divided by Total Assets. Higher TATO indicates better asset utilization and operational efficiency (Ross et al., 2016).

- Fixed Asset Turnover (FATO)

  Indicates how effectively a company uses its fixed assets to generate sales. FATO is calculated as Revenue divided by Net Fixed Assets. It helps assess the efficiency of long-term investments and the productive use of fixed assets (Fitzgerald et al., 2014).

- Inventory Turnover Ratio

  Measures how quickly a company sells its inventory. It is calculated as the Cost of Goods Sold (COGS) divided by the Average Inventory. A higher ratio indicates efficient inventory management and faster turnover of goods (Brigham & Ehrhardt, 2014).

- Receivables Turnover Ratio

  Indicates how efficiently a company collects its accounts receivable. It is calculated as Net Credit Sales divided by Average Accounts Receivable. A higher ratio suggests effective credit policies and efficient collection processes (Pandey, 2015).

3. RESEARCH METHODS

The research methodology utilized in this study seeks to conduct a comprehensive analysis of the financial performance of PT. TELEKOMUNIKASI NEGARA Tbk (TLKM) in comparison to its main rivals, PT. Indosat Tbk (ISAT) throughout the timeframe of 2022-2023. The study technique includes the following:

1. Data Collection

Data collection of TLKM and Indosat for the years 2022-2023 is conducted through the utilization secondary data sources are derived from the annual public financial reports made available by the IDX on the website www.idx.co.id.

2. Ratio Analysis

Essential financial ratios, as including Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Total Asset Turn Over (TATO), Fixed Asset Turn Over (FATO), Debt to Equity Ratio (DER) And Current Ratio (CR). Each ratios were computed for every companies. These ratios offer valuable information about the profitability, efficiency, and overall financial well-being of the companies.

3. Descriptive Analysis

The ratios that were calculated were compared to competitors in order to evaluate their relative performance. Also, the identification of trends in financial performance was achieved by comparing the ratios of TLKM, EXCL and ISAT over a two-year period.

This research acknowledges several methodological limitations, including constraints in economic variations that cannot be explained solely by the company's financial data. Additionally, the insights gained from this analysis may not fully reflect the entire company condition and capabilities.

4. RESULT AND DISCUSSION

4.1 Return of Asset (ROA)

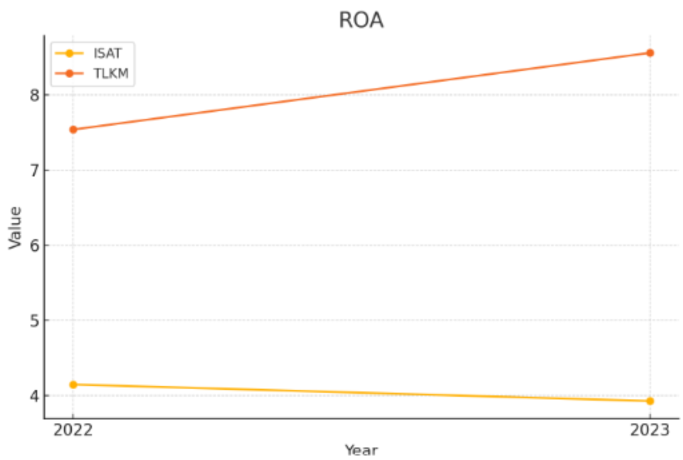

Figure 1 ROA Ratio (Source: Financial Report of ISAT & TLKM 2022-2023)

Figure 1 illustrates that TLKM's Return on Assets (ROA) increased significantly from 7.54% in 2022 to 8.56% in 2023, reflecting an enhanced capacity to generate profits from its assets. This metric is particularly important as it indicates the efficiency with which a company manages its assets to produce earnings. The higher ROA of TLKM compared to ISAT suggests a superior ability to convert investments into profit. TLKM's asset management strategies appear to be highly effective, contributing to greater profitability. This efficiency could be attributed to improved operational practices, strategic investments, or more effective cost management.

In contrast, ISAT experienced a decline in ROA from 4.15% in 2022 to 3.93% in 2023, indicating a reduction in asset efficiency. This downturn could result from increased costs, less efficient asset utilization, or declining revenue. The decrease in ISAT's ROA highlights potential challenges in managing its assets effectively. TLKM's superior performance in ROA underscores its strong position within the industry, demonstrating a robust capability to leverage its assets more effectively to generate profits. This proficiency in asset management is a critical factor for long-term sustainability and growth. TLKM's higher ROA signifies a more effective utilization of its resources, which is essential for maintaining competitive advantage and achieving sustained financial performance.

4.2 Return of Equity (ROE)

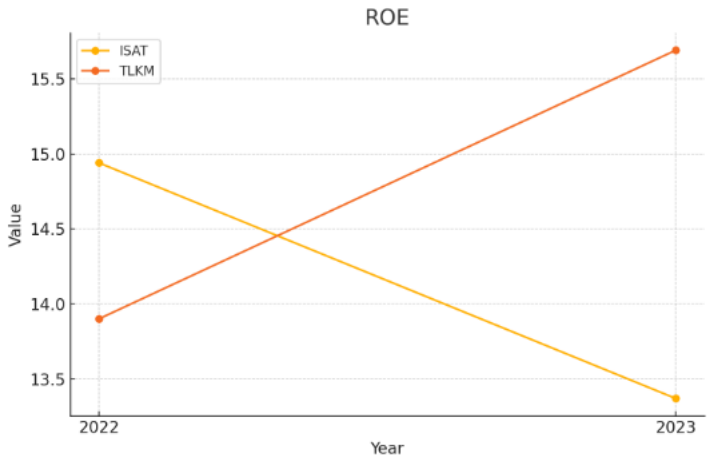

Figure 2 ROE Ratio (Source: Financial Report of ISAT & TLKM 2022-2023)

Figure 2 demonstrates that TLKM's Return on Equity (ROE) increased from 13.90% in 2022 to 15.69% in 2023, highlighting an enhanced capacity to generate profits from shareholders' equity. ROE serves as a critical indicator of financial performance, revealing how effectively a company utilizes its equity investments to drive earnings growth. The rise in TLKM's ROE signifies efficient use of its equity base to bolster profitability. This improvement is particularly attractive to investors, as it indicates effective management and a promising potential for substantial returns on their investments.

In contrast, ISAT's ROE decreased from 14.94% in 2022 to 13.37% in 2023, indicating a reduction in profitability relative to its equity base. This decline might be attributed to various factors, including higher costs, lower revenue, or less efficient utilization of equity. The drop in ISAT's ROE suggests challenges in maintaining profitability with the existing equity base. TLKM's superior ROE performance, coupled with its upward trend, underscores its robust ability to deliver shareholder value. This strong ROE reflects effective operational performance and prudent financial management, making TLKM a more appealing option for investors seeking substantial returns. The increased ROE emphasizes TLKM's capability to generate higher returns on equity, which is essential for sustaining competitive advantage and achieving long-term financial success.

4.3 Net Profit Margin (NPM)

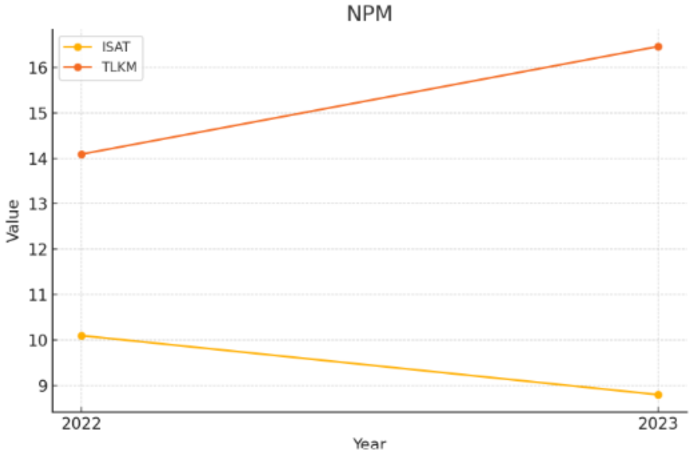

Figure 3 NPM Ratio (Source: Financial Report of ISAT & TLKM 2022-2023)

Figure 3 shows that TLKM's Net Profit Margin (NPM) increased from 14.09% in 2022 to 16.46% in 2023, underscoring the company's robust profitability and effective cost management. NPM is a crucial financial metric as it measures the percentage of revenue that remains as profit after all expenses have been deducted. The improvement in TLKM's NPM indicates that the company is becoming increasingly proficient at controlling costs and managing expenses, thereby retaining a larger portion of its revenue as profit. This enhanced efficiency might be attributed to several factors, including better pricing strategies, improved operational efficiency, or successful cost-saving initiatives.

In contrast, ISAT experienced a decline in its NPM from 10.10% in 2022 to 8.80% in 2023, suggesting difficulties in maintaining profitability amid changing revenue dynamics. This reduction in NPM could be due to rising costs, competitive pricing pressures, or operational inefficiencies. The decrease in ISAT's NPM highlights potential challenges the company faces in sustaining its profit margins. TLKM's superior NPM, coupled with its positive trend, highlights its ability to convert a higher percentage of revenue into profit, making it more resilient and better positioned to withstand economic fluctuations. This strong margin performance reflects TLKM's competitive advantage and operational excellence within the industry, reinforcing its capacity to achieve sustained financial success and deliver value to its shareholders.

4.4 Total Asset Turnover (TATO)

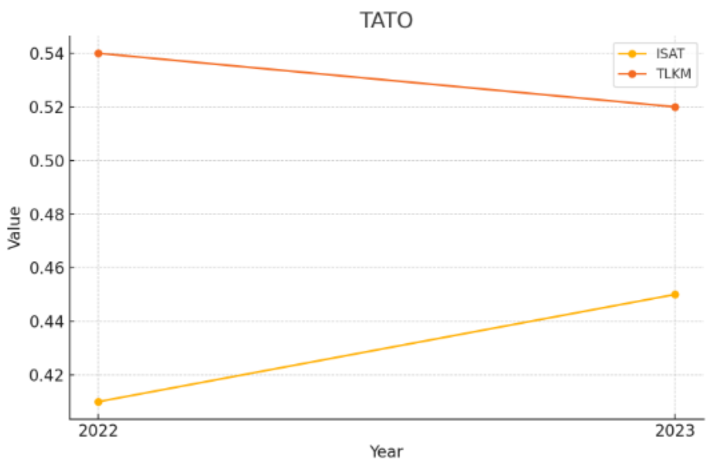

Figure 4 TATO Ratio (Source: Financial Report of ISAT & TLKM 2022-2023)

Figure 4 illustrates that TLKM's Total Asset Turnover (TATO) experienced a slight decrease from 0.54 in 2022 to 0.52 in 2023, indicating a minor reduction in its efficiency in utilizing assets to generate sales. TATO is a critical efficiency ratio that measures how effectively a company uses its assets to produce sales revenue. Despite this slight decline, TLKM's TATO remains higher compared to ISAT, signifying better overall asset utilization. ISAT saw an increase in its TATO from 0.41 in 2022 to 0.45 in 2023, reflecting improvements in its asset utilization. However, ISAT's TATO still lags behind TLKM's, indicating that TLKM is more efficient in generating revenue from its assets.

The higher TATO of TLKM suggests superior efficiency in converting assets into sales revenue, which contributes to its overall strong financial performance. This efficiency could be attributed to factors such as effective inventory management, strategic asset allocation, or robust sales strategies. TLKM's ability to maintain a relatively high TATO despite a slight decrease demonstrates strong operational practices and strategic asset management. By effectively leveraging its assets to drive sales, TLKM shows operational agility and competitiveness, which are essential for sustaining growth and profitability in the long term. The company's higher TATO highlights its proficiency in asset utilization, reinforcing its position as a leader in operational efficiency within the industry.

4.5 Fixed Asset Turnover (FATO)

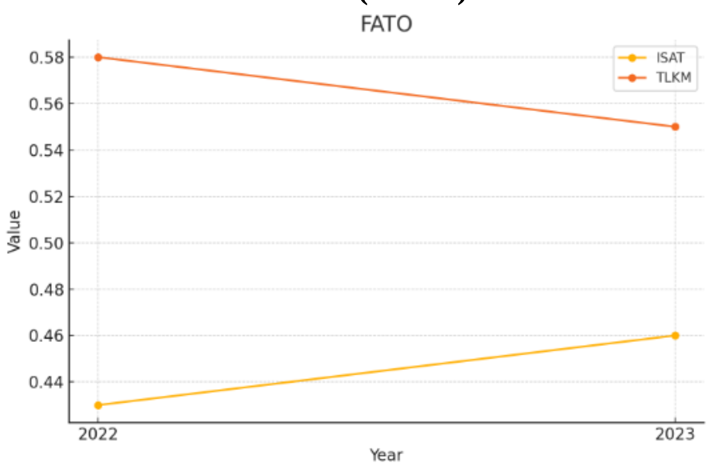

Figure 5 FATO Ratio (Source: Financial Report of ISAT & TLKM 2022-2023)

Figure 5 illustrates that TLKM's Fixed Asset Turnover (FATO) decreased slightly from 0.58 in 2022 to 0.55 in 2023, indicating a minor reduction in its efficiency in generating revenue from fixed assets. FATO measures a company's ability to generate net sales from its fixed-asset investments, such as property, plant, and equipment. Despite this decrease, TLKM still has a higher FATO compared to ISAT, reflecting superior management of its fixed assets. ISAT's FATO increased from 0.43 in 2022 to 0.46 in 2023, showing an improvement in its efficiency in utilizing fixed assets. However, ISAT's FATO remains behind TLKM's, suggesting that TLKM is more effective in generating sales from its fixed assets.

TLKM's higher FATO indicates that its fixed assets are being used more efficiently to generate sales, which is particularly important in capital-intensive industries. This efficiency could result from more effective use of production facilities, better maintenance practices, or higher utilization rates of fixed assets. Maintaining a higher FATO is indicative of effective capital expenditure strategies and operational efficiency, both of which are essential for achieving sustained revenue growth and competitiveness in the market. TLKM's ability to leverage its fixed assets effectively contributes significantly to its overall profitability and operational success. The company's higher FATO highlights its proficiency in managing fixed assets, reinforcing its strong position in the industry and its capability to sustain long-term financial performance.

4.6 Debt to Equity (DER)

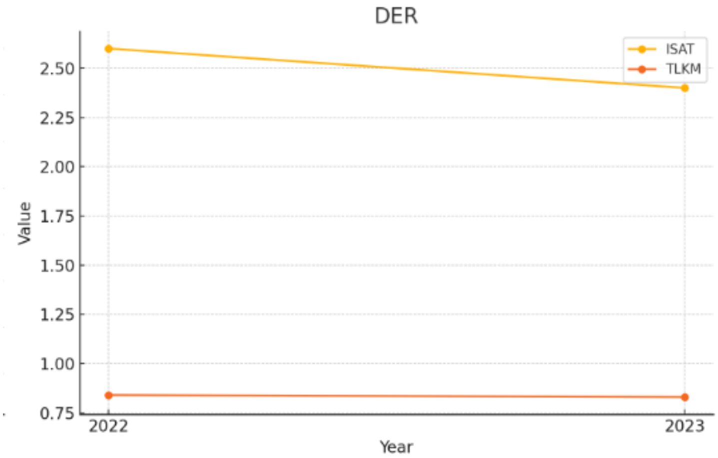

Figure 6 DER Ratio (Source: Financial Report of ISAT & TLKM 2022-2023)

Figure 6 shows that TLKM demonstrates a commendable stability in its Debt to Equity Ratio (DER), showing a modest decrease from 0.84 in 2022 to 0.83 in 2023. This trend underscores the company's prudent debt management practices and its preference for equity financing over debt. Such a low DER signifies robust financial health and reduced financial risk, as TLKM maintains a conservative approach to leverage. This strategic financial stance not only insulates the company from interest rate fluctuations and economic downturns but also ensures a stronger balance sheet resilience.

ISAT despite reductions in their DERs from 2.60 to 2.40 still carry significantly higher leverage compared to TLKM. These higher ratios imply greater financial leverage and risk exposure for ISAT, highlighting their more aggressive financing strategies relative to TLKM. TLKM's conservative financial approach, evidenced by its lower DER, reinforces its stability and enhances its capacity to pursue growth opportunities with reduced financial constraints. This prudent financial management not only bolsters TLKM's competitive position but also fortifies its long-term sustainability in the market.

4.7 **Current Ratio (CR)**

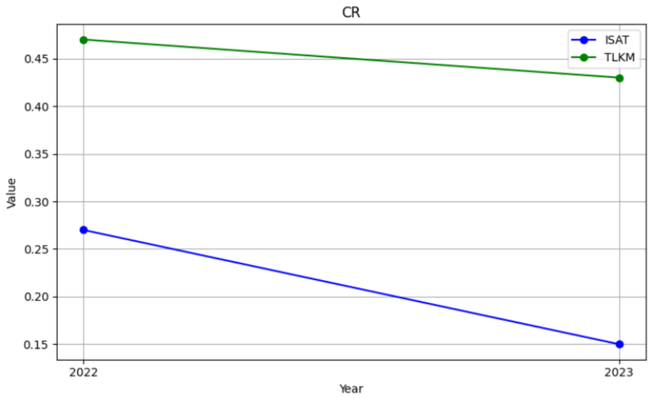

Figure 7 CR Ratio (Source: Financial Report of ISAT & TLKM 2022-2023)

Figure 7 illustrates that TLKM's Current Ratio (CR) saw a slight decrease from 0.47 in 2022 to 0.43 in 2023, indicating a marginal reduction in its short-term liquidity position. The CR is a critical financial metric that gauges a company's ability to settle its short-term obligations using its current assets. A CR below 1 can raise concerns about liquidity sufficiency. Despite the decline, TLKM's CR remains comparatively stronger than that of ISAT, signaling a relatively robust liquidity position. ISAT's CR decreased from 0.27 to 0.15, indicating reduced short-term liquidity. These lower ratios for ISAT underscore potential liquidity constraints, emphasizing the importance of maintaining adequate levels of current assets to cover immediate financial obligations.

TLKM's relatively higher CR, despite its slight dip, indicates a healthier reserve of current assets to address short-term liabilities. This stronger liquidity management offers reassurance to stakeholders, including creditors and investors, regarding the company's ability to manage financial obligations comfortably. Such resilience in liquidity can prove advantageous during economic downturns or unforeseen financial challenges, enhancing TLKM's financial flexibility and stability. It reflects sound financial stewardship and a cautious approach to liquidity management, crucial for sustaining operations and supporting long-term growth. By maintaining a more robust CR compared to its peers, TLKM demonstrates effective working capital management, ensuring operational continuity and reinforcing its financial health. This strategic advantage underscores TLKM's capability to navigate varying market conditions while maintaining stability and fostering investor confidence.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The analysis of TLKM and ISAT's financial performance from 2022 to 2023 reveals significant insights into their operational efficiency and financial health. TLKM has demonstrated robust improvements across key financial metrics, positioning itself favorably compared to ISAT and concluded that:

1. TLKM Return on Assets (ROA) shows a stronger ability to generate profits from its assets compared to ISAT. This improvement signifies efficient asset utilization and effective operational management strategies, contributing to TLKM's profitability growth. In contrast, ISAT experienced a decline in ROA, indicating challenges in maintaining asset efficiency and profitability over the same period.

2. TLKM have better Return on Equity (ROE) relative to ISAT. Highlighting its effective utilization of equity investments to drive higher returns for shareholders. This upward trend in ROE underscores TLKM's strong financial stewardship and strategic decision-making, appealing to investors seeking substantial returns. Conversely, ISAT's ROE declined, signaling a decrease in profitability relative to its equity base and suggesting potential inefficiencies in capital utilization.

3. TLKM Net Profit Margin (NPM) retains a higher percentage of revenue as profit compared to ISAT. This improvement reflects TLKM's effective cost management and revenue generation strategies, resulting in a larger proportion of revenue retained as profit. In contrast, ISAT's NPM declined, indicating challenges in maintaining profitability amidst evolving market conditions and operational dynamics.

4. In terms of asset efficiency, TLKM Total Asset Turnover (TATO) generates more revenue per unit of assets compared to ISAT. While TLKM experienced a slight decrease in Total Asset Turnover (TATO), it maintained a higher efficiency compared to ISAT, which improved its TATO. TLKM's ability to sustain a relatively high TATO suggests efficient asset management practices, contributing to its competitive advantage in revenue generation from assets. Similarly, TLKM's Fixed Asset Turnover (FATO) remained higher than ISAT's despite a minor decline, showcasing TLKM's effective utilization of fixed assets to generate sales revenue.

5. TLKM Fixed Asset Turnover (FATO) remained higher than ISAT's despite a minor decline, showcasing TLKM's effective utilization of fixed assets to generate sales revenue. TLKM is more effective in generating sales from its fixed assets compared to ISAT. A higher FATO for TLKM indicates efficient utilization of its property, plant, and equipment, which is crucial in capital-intensive industries like telecommunications. This efficiency reflects well-managed capital expenditures and operational excellence.

6. TLKM maintains a lower Debt to Equity Ratio (DER) compared to ISAT, indicating a more conservative approach to financing and lower financial risk. A lower DER suggests that TLKM relies less on debt financing relative to equity, enhancing its financial stability and resilience against economic downturns or interest rate fluctuations.
7. TLKM possesses a higher current ratio compared to ISAT, signifying better short-term liquidity and ability to meet immediate financial obligations. This stronger liquidity position provides TLKM with greater flexibility in managing working capital and navigating unforeseen financial challenges.

In conclusion, TLKM emerges as the stronger performer across these financial metrics, highlighting its robust financial health, efficient operational management, and strategic positioning within the telecommunications industry. These strengths position TLKM favorably for sustained growth and resilience in the competitive market landscape compared to ISAT.

5.2 Recommendation

Based on the robust financial performance and strategic analysis of TLKM, several recommendations are proposed to further strengthen its market position and capitalize on its strengths. Firstly, TLKM should prioritize enhancing asset efficiency by optimizing operational processes and leveraging technological advancements. This initiative will help maintain or improve its Total Asset Turnover (TATO), ensuring efficient utilization of resources and maximizing revenue generation from its asset base. Concurrently, TLKM should bolster cost management practices to sustain its improved Net Profit Margin (NPM). By rigorously monitoring costs, exploring economies of scale, and implementing cost-effective innovations, TLKM can enhance profitability and operational efficiency across its operations.

Secondly, TLKM should strategically invest in growth initiatives aligned with its strong Return on Equity (ROE). This includes expanding into promising market segments, investing in advanced technologies to enhance service offerings, and diversifying its portfolio to capture new revenue streams. These strategic investments will not only drive revenue growth but also enhance shareholder value and competitive positioning in the telecommunications sector.

Furthermore, TLKM must maintain a proactive approach to risk management amidst the competitive landscape and economic uncertainties. Continuous assessment of market risks, effective hedging strategies, and maintaining sufficient liquidity will safeguard TLKM against potential disruptions and ensure financial resilience. Lastly, clear and transparent communication of its financial strengths and strategic initiatives will be crucial in reinforcing investor confidence and maintaining stakeholder trust. By implementing these recommendations, TLKM can sustain its competitive edge, foster sustainable growth, and navigate market challenges effectively, solidifying its leadership in the telecommunications industry.

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CHAPTER 10

Financial Performance Analysis and Evaluation of PT. Kimia Farma, Tbk (KAEF) Before and During Covid-19 Pandemic for Years 2018 -2023

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ABSTRACT

Indonesia's pharmaceutical market is the largest in the Southeast Asia region. Sales of medicines in Indonesia were valued at Rp 110.6 trillion, roughly $ 7.6 billion in 2020, and are forecasted to expand to Rp 176.3 trillion by 2025, according to US-based Fitch ratings. In the critical COVID-19 pandemic, many of Indonesia's corporate sectors have had their operational activities disrupted, which has caused a decline in revenue. This study aimed to analyze financial statements to measure PT Kimia Farma, Tbk's economic performances for the 2018-2023 period. The method in this paper is the result of analysis using liquidity, solvency, activity, and profitability ratios measurements. The data used in this study is quantitative data sourced from secondary data, namely annual publicly financial reports documents from the Indonesian Stock Exchange (IDX). The results are the analytical results of the liquidity ratio calculation, the company's financial performance is unfavorable, showing a decline that causes the company to be unable to carry out or pay its current obligations. Based on the calculation of the profitability ratio, unfortunately, in 2022, the ROA value of PT. Kimia Farma, Tbk is 0.244%, which is going down drastically compared to the previous year with a decrease of 1.968%, which has classified PT. Kimia Farma Tbk is at an unhealthy level, Meanwhile, the ROE value of PT Kimia Farma, Tbk decreased from 11.97 in 2018 to -1.18 in 2022. The value of (1.18) means the company generates a net loss, and in terms of criteria, the company is said to be Unsound. In this global era, the company has managed to control the cost of goods sold (COGS) and experienced an increase in equity, which could reflect restructuring efforts or adaptation to following market conditions to achieve better financial performances.
Keywords: Liquidity, Profitability ratios, Revenue, Return of assets, Return of equity.

1. INTRODUCTION

Indonesia's Pharmaceutical market is the biggest number in the Southeast Asia region. Sales of medicines in Indonesia were valued at Rp 110.6 trillion (roughly $ 7.6 billion) in 2020 and are forecasted more than 50 % in 2025. This number is almost twice that of many countries in the Southeast Asia region. It is a big opportunity not only for local companies but also for other multinational companies to expand their business in Indonesia (EBC, 2024).

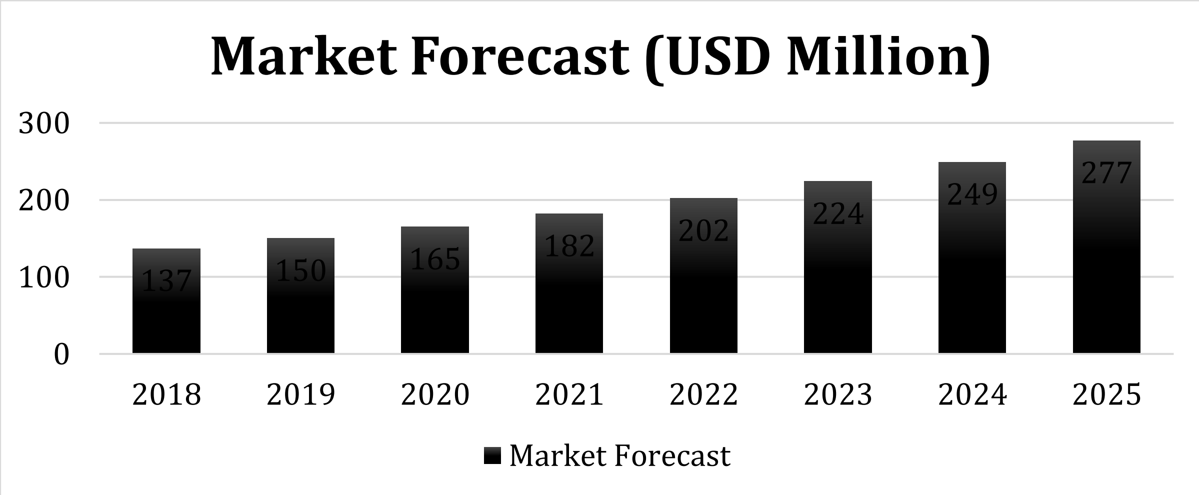

Figure 1: Indonesia Pharmaceutical Market Forecast 2018 - 2025. (EBC,2024)

Based on Figure 1, we can see the country's pharmaceutical industry is booming as well, with the market estimated to grow at a CAGR of 4.5 % between 2018-2025. The biggest number influenced by lifestyles that increase the prevalence of chronic diseases, surging geriatric population, and increasing government support for health infrastructure have been the primary drivers of this growth (EBC, 2024)

This situation shows the support from the government to spend a higher budget to increase the quality and safety in the healthcare sectors. For 2022, Indonesia's government spend a higher budget, especially for healthcare sectors including pharmaceuticals. This phenomenon happened because of the coronavirus crisis, this also demonstrates the Indonesian government's commitment to providing and improving healthcare access for its citizens (EBC, 2024)

Flashback to the Covid-19 pandemic era, according to the Ministry of Finance data, some industrial sectors grew significantly during the Pandemic (Fauzia & Sukmana, 2020). The increasing number of primary needs in handling the Covid-19 Pandemic by the pharmaceutical sector has resulted in the performance of the pharmaceutical industry going up and considerable benefits in the first semester of 2020, for example, including PT Kimia Farma Tbk (KAEF), in the middle of 2020, the company claimed net sales achievement IDR 4.69 trillion, going up 3.76 percent from sales of IDR 4.52 trillion in the same period in 2019. Based on the data, profits made by pharmaceutical companies grow significantly compared with other companies from other sectors because of the high market need for drugs and medical devices. Due to the Pandemic, the authors are curious to analyze the performance of a state-owned company, PT. Kimia Farma, Tbk, compares the performance before, during, and after COVID-19.

2. LITERATURE REVIEW

As the first pharmaceutical company in Indonesia, PT, Kimia Farma, Tbk, was founded by the Dutch East Indies Government in 1817. Before changing the name to PT. Kimia Farma, Tbk, the original name was NV Chemicalien Handle Rathkamp & Co. This company has grown and multiplied, proved by many awards it has won in recent years, such as becoming the best digital public relations awards and popular brand awards (IDPBA)). PT. Kimia Farma, Tbk won 4 award categories in digital awards and IDPBA 2020 (Kimia Farma Page, 2024).

Based on the official page of Kimia Farma 2022 showed that Kimia Farma dominates as Indonesia's premium and most prominent company in the pharmaceutical industry. Kimia Farma's mission is to contribute to improving public health in Indonesia. Besides its business activities, the company commits to supporting government initiatives and healthcare organizations to provide access to quality healthcare products. As a commercial company, Kimia Farma is very concerned with developing research and innovative products for the Indonesian market. It includes the development of new drugs, Improved formulations, and developed healthcare technologies. While primarily operating in Indonesia, Kimia Farma has also explored international markets by exporting its products. It reflects the mission of the company to expand the business globally (Kimia Farma Page, 2024)

The Pandemic itself influence the financial performance, especially the pharmaceutical industry in Indonesia. The declining performance of many pharmaceutical companies is influenced by the low demand in the market due to activity restrictions in Indonesia. The shifting demand in the market also makes the situation worse and most companies have to adapt as soon as possible to survive in a hard situation like the pandemic (Hadiwardoyo, 2020).

Some companies have announced their achievement of FY 2022 at the end of December 2022 and based on the data of IDX reports some companies show improvements, but unfortunately, the others still have experienced not good results. The different results of the pharmaceutical companies, especially in Indonesia influenced by some factors like product Innovation, New market development program focus & the acceleration to adapt to a new era in the market.

3. RESEARCH METHODS

This paper aims to find out and explain the analysis of PT's financial statements. Kimia Farma, Tbk for the 2018-2023 period. The analytical method used is a descriptive analysis measuring liquidity, solvency, activity, and profitability ratios. The type of data used in this paper is quantitative data sourced from secondary data, namely annual public financial reports documents from the Indonesian Stock Exchange (IDX)

The profitability ratio is the main ratio that we use in this paper which determines how much a company can generate profits through its resources, either from the sales of goods or services, company assets, or equity (Thian, 2022). The profitability ratios compared in this paper are :

a.Return On Assets (ROA) is the Ratio used to measure how much percentage of net Profit can be generated from the assets owned by the company or how much the contribution of assets in generating net income (Thian, 2022)

b. Return On Equity (ROE) is the Ratio used to measure how much of the net Profit can be generated by the equity owned by the company or how much of the contribution from equity can be used to create net Profit (Thian, 2022).

Based on the data from Sugiyono (2016), in quantitative research, data analysis is an activity that is performed after the data from all respondents or other data sources has been collected. Activities in data analysis are grouping data based on variables and types of respondents, tabulating data based on variables from all respondents, presenting data for each variable studied, performing calculations to answer all the problem formulations, and performing calculations to test the hypotheses that have been proposed (Sugiyono, 2016).

4. RESULT AND DISCUSSION

Profitability Ratio

Profitability ratios are used to evaluate various aspects of a company's activities and generate profits. Devi et al. (2020) also state that the Profitability ratio measures a company's ability to earn profits and measures the level of company efficiency. Investors and creditors use profitability ratios to assess the company's return on investment at the level of resources and assets owned by the company (Lessambo, 2018; J. et al, 2018). Several ratios are used to measure profitability ratios are :

1. **Return on Assets (ROA)**

Table 1. Return on Assets PT Kimia Farma Tbk., 2018 – 2022 (Source: Data processed from The IDX Website)

Calculation of ROA PT.Kimia Farma Tbk period 2018 - 2022			
Year	**Total Profit before tax**	**Total Assets**	**ROA (%)**
2018	755.296.047	11.329.090.864	6,667
2019	38.315.488	18.352.877.132	0,209

2020	73.359.098	17.562.816.674	0,418
2021	392.883.409	17.760.195.040	2,212
2022	49.622.055	20.353.992.893	0,244

The ROA value of PT Kimia Farma is shown in the above data in Table 1. Kimia Farma Tbk in 2018 was 6.667 %, which means the company's financial condition is very healthy, the ROA of more than 5 % shows the company can utilize its total assets to generate more net earnings. Meanwhile, the company's performance in 2019 showed a considerable decrease, amounting to 0.209 %, which means the company is included in the unhealthy criteria. After that, in 2020, the data showed improvement and increased performance by 0.209 % compared to the previous year, but according to the criteria, the company was still classified as unsound. Moving forward to 2021 performance, the ROA value is 2.212%, which has increased quite sharply from the previous year's 1.794%, meaning in terms of company criteria, it is categorized as a healthy company, but unfortunately, in 2022, the ROA value of PT. Kimia Farma, Tbk is 0.244%, which is going down drastically compared to the previous year with a decrease of 1.968%, which has classified PT. Kimia Farma Tbk is at an unhealthy level. A higher return on assets shows management is utilizing the assets base efficiently.

2. Return on Equity (ROE)

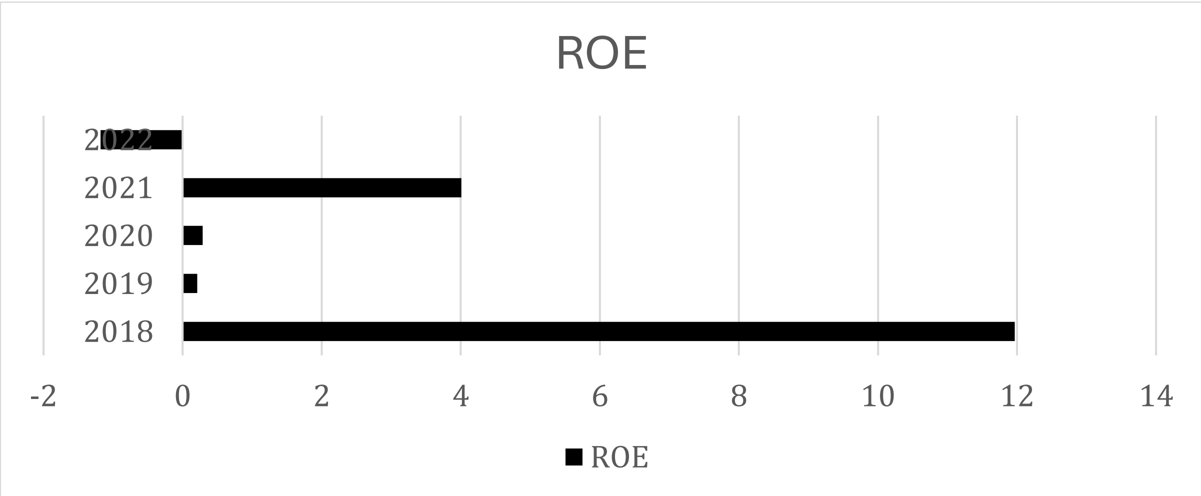

Figure 2. Return on Equity PT Kimia Farma Tbk., 2018 – 2022

Return on equity (ROE) is the amount of net income returned as a percentage of shareholders' equity. It reveals how much Profit is generated with the money shareholders have invested. A higher ROE shows better profit performance; therefore, ROE is a ratio that investors can consider when investing money (Lessambo, 2018).

The ROE can prove how efficiently the company uses its money to generate profits. The formulation of ROE can be explained as follows :

Return on equity = <u>Net Income</u> X 100 %

Total Equity.

PT. Kimia Farma Tbk ROEs decreased from 11.97 in 2018 to -1.18 in 2022. The value of (1.18) means the company generates a net loss, and in terms of criteria, the company is said to be Unsound (Kimia Farma, 2022)

3. Liquidity Ratio

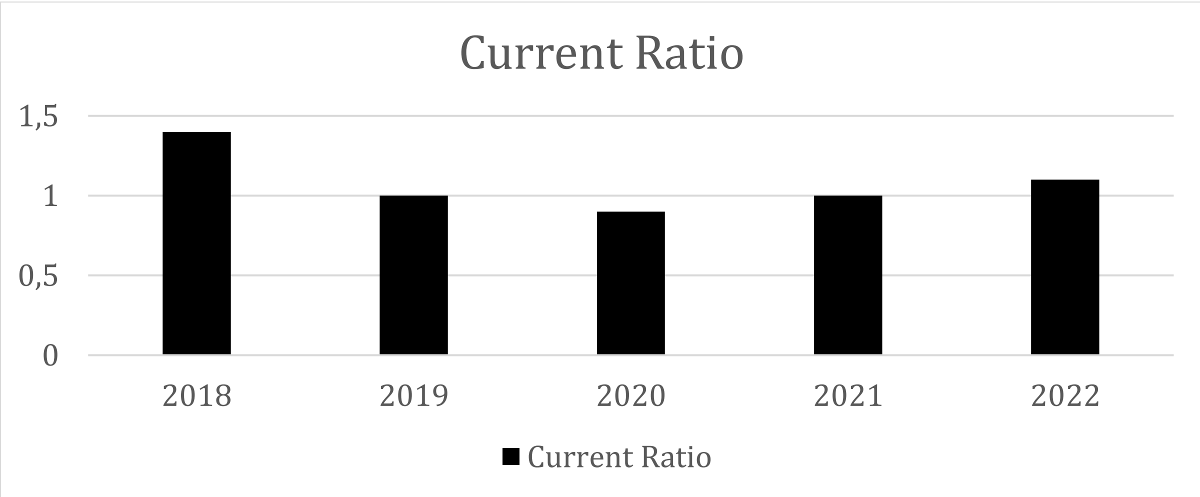

Figure 3. Liquidity Ratio PT Kimia Farma Tbk., 2018 – 2022

Liquidity ratio measures a company's short-term ability to pay obligations (Kieso et al., 2020). Liquidity generally refers to a company's ability to convert its assets into cash to pay its current obligations (Spiceland et al., 2018). In other words, the liquidity ratio can be concluded as the company's ability to settle its short-term obligations.

The current Ratio is a liquidity ratio that measures a company's ability to pay short-term and long-term obligations. According to Widyatuti (2017), a low current ratio indicates that the company has problems meeting its short-term obligations. The current Ratio can be measured by:

$$\text{Current Ratio} = \frac{\text{Total Current Assets}}{\text{Total Current Liability}}$$

Current ratio PT. Kimia Farma Tbk is relatively stable from 2018 through 2022, with the value approx. 1.42- 1.06 with the highest value in 2018. The value of the Current Ratio of 1.06 in 2022 means every IDR 1 of current liability is secured with IDR 1.06 current assets.

4. Acid Test Quick Ratio

The acid test (quick) ratio indicates a company's short-term liquidity. The acid test (quick) Ratio measures a company's ability to meet its short-term obligations with its most liquid assets. Hence, stock-up needs not be considered in the quick Ratio because it is difficult to convert into cash. The quick Ratio can be measured by :

$$\text{Quick Ratio} = \frac{\text{Total Current Assets – Inventory}}{\text{Total Current Liability}}$$

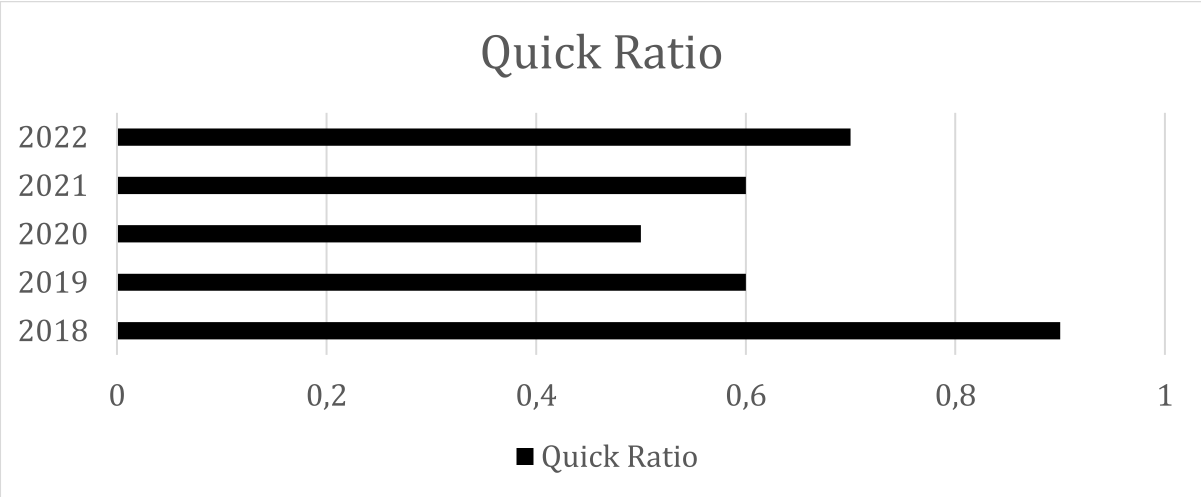

Figure 4. Acid Test Quick Ratio PT Kimia Farma Tbk., 2018 – 2022

For this reason, the Ratio excludes inventories and prepaid expenses from current assets, which is the value of quick ratio PT. Kimia Farma Tbk is consistent in 2018-2022 < 1; quick ration 0.66 in 2022 means every IDR 1 of current liability is secured with IDR 0.66 monetary current assets, which means the cash is insufficient to pay liabilities.

5. Net Profit Ratio

Net Profit Margin (NPM) is a profitability ratio that measures the net income generated from each rupiah amount of sales. This Ratio is calculated by comparing a company's net Profit and net sales (Lessambo, 2018; Spiceland et al., 2018). The net profit margin becomes one of the most critical indicators in assessing a company's financial health. It can help investors and creditors to see how effectively the company converting its sales into net Profit (money). For investors, this Ratio can ensure the level of Profit in the dividend distribution. Meanwhile, for creditors, it can ensure the company has a profit enough to pay back the loan. The higher the NPM you have a company, the better the company's performance in generating profits from product sales.

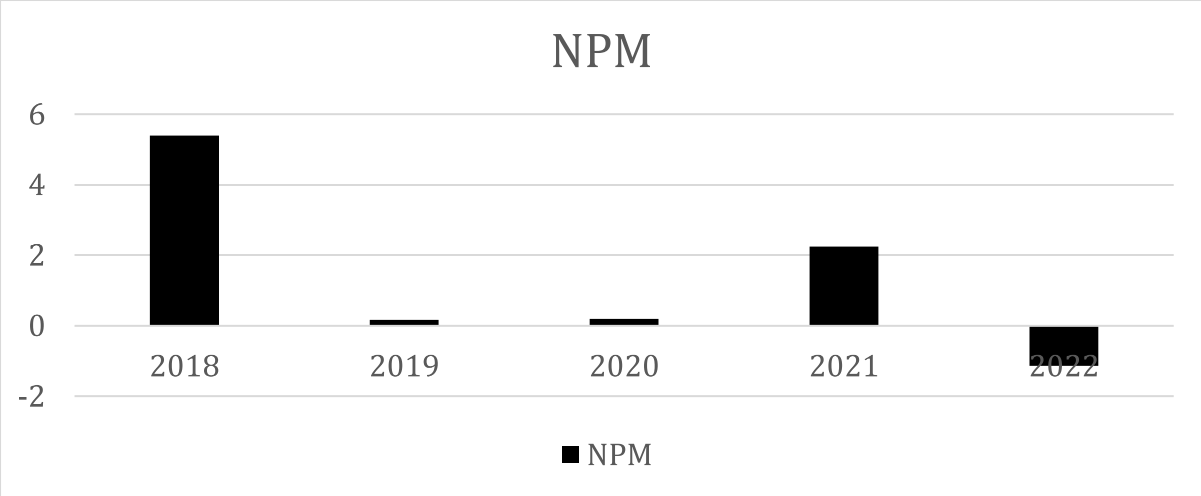

Figure 5. Net Profit Ratio PT Kimia Farma Tbk., 2018 – 2022

The equation of Net Profit Margin can be explained as follows:

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Net Sales}} \times 100\ \%$$

Based on Figure 5, PT. Kimia Farma Tbk's profit margin decreased from 5.39 in 2018 to -1.14 in 2022, which means the company cannot maintain its operating expenses and is not effective in converting income into actual profit.

6. **Debt to Equity Ratio**

Solvability analysis calculates a company's ability to pay off long-term debt. This study uses the debt-to-equity ratio (DER) to measure financial leverage. The DER ratio indicates how much debt a company uses to finance its assets relative to the value represented in shareholders' equity.

A higher DAR ratio indicates poorer performance in company finances due to high dependence on debt, which indicates financial weakness in the company (Lessambo, 2018). Debt to Asset Ratio (DAR) can be measured by:

$$\text{Debt to Asset Ratio} = \frac{\text{Total liabilities}}{\text{Total Asset}}$$

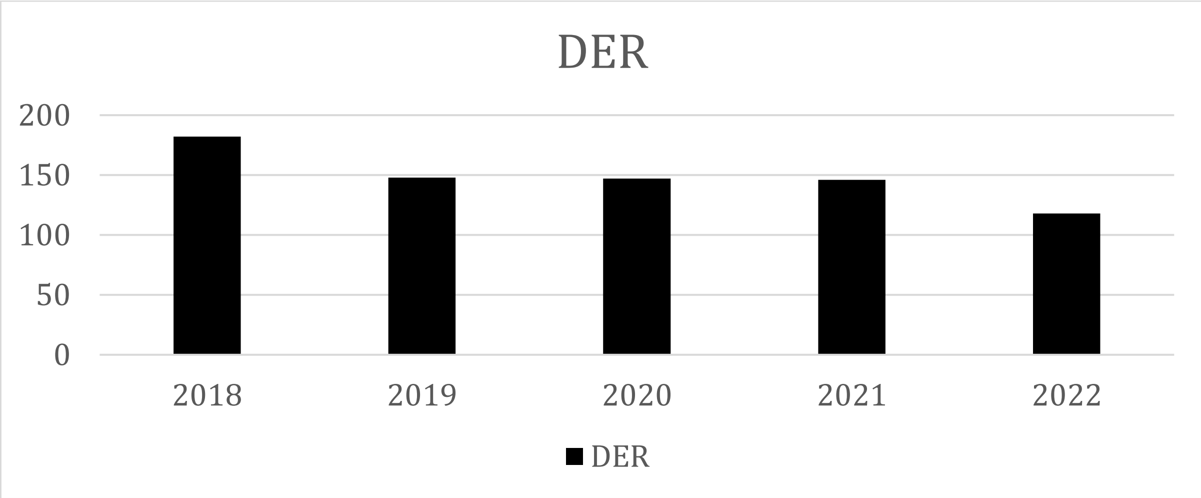

Figure 6. Debt to Ratio PT Kimia Farma Tbk., 2018 – 2022

Figure 6 shows PT. Kimia Farma Tbk's DER decreased from 182 in 2019 to 118 in 2022, which decrease of 27.65% from 2021. The debt-to-equity ratio shows the company's financial independence from loans. The debt-to-equity ratio of Kimia Farma shows that the company's condition is getting better because there is a decrease in the portion of debt to capital. It is very important for the company to manage its debt to improve its financial performance report.

CONCLUSION

FY	2018	2019	2020	2021	2022
Net Profit Margin	5,39%	0,17%	0,20%	2,25%	-1,14%
ROE	11,97	0,21	0,29	4,01	-1,18
Current Ratio	1,4	1	0,9	1	1,1
DER	182	148	147	146	118

The profitability ratios used in this paper are net profit margin and return on equity. The net profit margin measures the net Profit obtained as a percentage of the income received. In contrast, return on equity measures the company's efficiency in gaining profits using shareholder funds. Based on the table, after the emergence of COVID-19, the profitability of PT. Kimia Farma, Tbk was declined, proving that the company suffered losses. At the beginning of 2021, there is a hope that the company's performance would increase and be better in the Covid-19 era, but in contrast, unfortunately in 2022, the ROE of Kimia Farma is -1.18, which is lower compared to 2021, this situation aligns with the company's current profit decline in 2022. The ROE ratio and net profit margin data show the negative growth in 2022, PT. Kimia Farma, Tbk failed to generate profits optimally and was not effective in converting income into actual Profit. There is hope for Kimia Farma's financial independence from loans, supported by the data of the debt-to-equity Ratio in 2022, which is 118 %, which decreases to 146 % in 2021. The data on the debt-to-equity Ratio of Kimia Farma shows that the company's condition is improving because of a decrease in the portion of the debt-to-capital. It is tough to maintain strong financial performance, and they will need to take strategic steps to improve their performance. Product and service innovation, operational efficiency, exploring new markets, or adapting to new trends could be new opportunities for Kimia Farma to get back on track and improve its financial performance. In this global era, the company has managed to control the cost of goods sold (COGS) and experienced an increase in equity, which could reflect restructuring efforts or adaptation to following market conditions. Kimia Farma itself already made new strategies to improve its performance, such as a massive marketing program, market penetration, and non-droadshow (NDR) with some investors to build a new business portfolio to accelerate the financial performance of Kimia Farma.

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CHAPTER 11

Financial Performance Analysis and Evaluation of Nickel Mining Company: PT Vale Indonesia, Tbk for years 2018-2023

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ABSTRACT

The demand for nickel, especially for batteries used in electrical vehicles (EVs) is growing rapidly. Indonesia holds the world's largest nickel reserves and leverages Nickel commodity to attract investment in the industry. PT Vale Indonesia Tbk plays a significant role in Indonesia's nickel industry, contributing to global supply chains while prioritizing sustainability and responsible practices. The study objective is to analyze and evaluate PT Vale Indonesia Tbk's Financial Performance, one of the largest Indonesia Mineral Mining Companies that is primarily engaged in the Nickel Mining and processing business, located in Sorowako, East Luwu, South Sulawesi. The data was collected from the PT Vale Indonesia Tbk Consolidated Financial Statements from 2018 through 2023. The research methodology used was Financial Ratio Analysis (FRA) to measure the liquidity, solvency, activity, and profitability performances and will be tested by using Du-Pont System theory. Furthermore, the end-analysis findings would be expected to show PT Vale Indonesia Tbk Financial Health and Operational Efficiency. With a smooth operation strategy and healthy financial performances, especially its profitability, hopefully, it would increase PT Vale Indonesia Tbk stock prices which means investors are willing to pay more for the company's shares. Hence, it shows positive investor sentiment that would be in line with Indonesia's government strategy to attract investment in smelter projects and nickel end-to-end processing plants in Sulawesi and at the end of the day will support Indonesia to become a future battery production hub.
Keywords: Financial Performance, Financial Ratio Analysis, Nickel Mining and Processing Industry, Du-Pont System.

1. INTRODUCTION

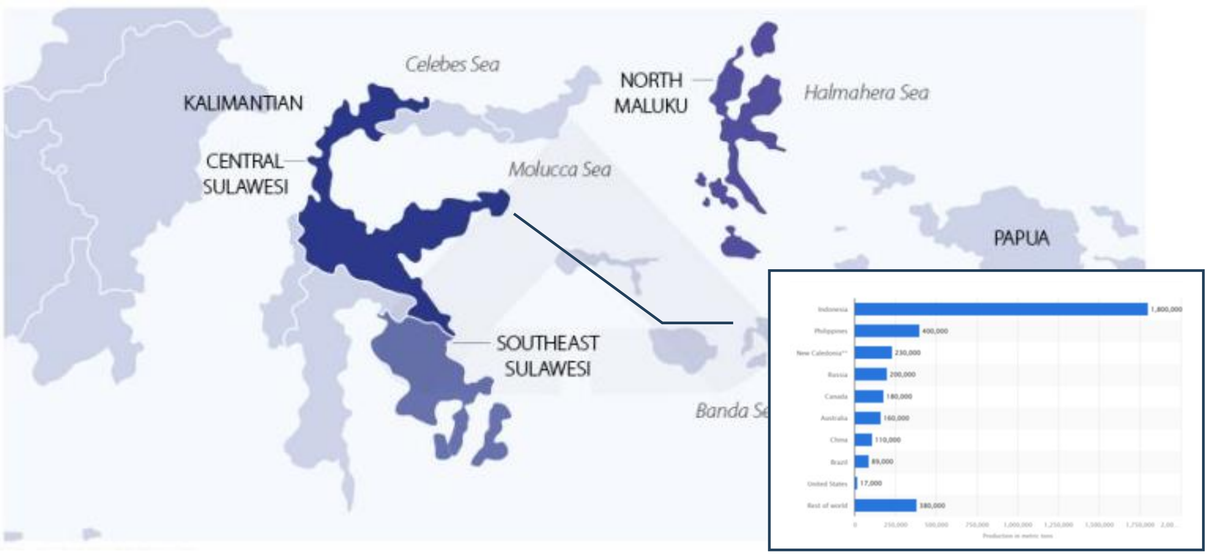
Indonesia’s production of nickel from mines has grown considerably in recent years, increasing by more than six-fold since 2010. Indonesia’s nickel mine output accounted for about half of global total nickel production in 2023. In 2023 alone, Indonesia's mines produced an estimated 1.8 million metric tons of nickel. This figure makes Indonesia the leading producer of nickel commodity from mines worldwide by a large margin.

Indonesia’s nickel strategy is part of the country’s commodity-led development strategy with a general approach guided by the 2009 Mineral and Coal Mining Law (Law No.4/2009). This is linked to Indonesia’s Constitution of 1945, Article 33, which states that land, waters, and natural resources are controlled by the state and shall be used to the greatest benefit of the people of Indonesia.

The nickel industry in Indonesia has strategically positioned itself to capitalize on the growing demand for battery-grade nickel, particularly for EV batteries. The Indonesian government's focus on domestic processing and value addition underscores its commitment to resource-led development and economic opportunities in the energy transition. Indonesia has been expanding its nickel smelting capacity, especially in the region of Sulawesi, East Indonesia Area. The number of nickel smelters and their capacity has increased between 2015 and 2023.

The strategy currently also aligns with the mineral’s crucial role in the energy transition. While current nickel demand is mainly driven by steel production (around 70%), the demand for batteries (for EVs) is expected to grow significantly. The Indonesian government aims to attract investments in smelters and processing plants to add value to its nickel reserves rather than merely exporting raw nickel ore. Over the last few years, Indonesia has successfully developed a fully integrated steel supply chain and now aims to become a battery production hub, collaborating with Chinese investors. Today, under the long-term mutual collaboration with Indonesia’s Government, Chinese investments have already developed an integrated steel industry and Indonesia is now on the right track to repeat this success in the EV battery supply chain

Figure 1. Indonesia’s Nickel Producing Regions

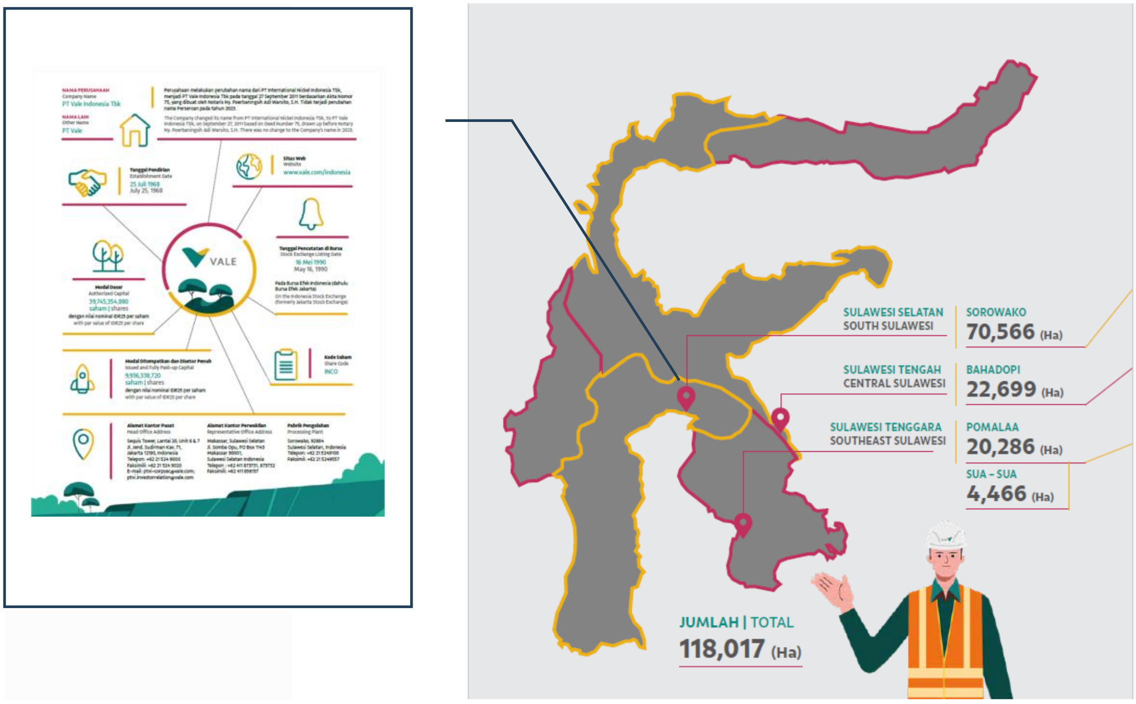


Source: Channel News Asia and Statistica.com

PT Vale Indonesia Tbk (PT Vale) is one of the mineral mining companies in Indonesia, that specializes in Nickel Mining. Established in July 1968, the company obtained a license from the Indonesian government to carry out the exploration, mining, processing, and marketing of nickel and related products. Their project portfolio includes the Sorowako Limonite Project, Morowali (a greenfield Saprolite Project), and Pomalaa (a greenfield Saprolite and Limonite Project). PT Vale also owns and operates three hydroelectric power generating plants Larona, Balambano, and Karebbe. The plants supply the electricity for operating a smelting and nickel ore processing furnace at the process plant in Sorowako. The company operates throughout Indonesia and has offices in Sorowako and Makassar with their headquarters in Jakarta.

The objective of the study is to analyze and evaluate PT Vale's Financial Performance during 2018 – 2023 to understand how the company operates in its nickel business and also measure its financial health. The research methodology used is Financial Ratio Analysis (FRA) to measure the liquidity, solvency, activity, and profitability performances and will be tested by using the Du-Pont System theory, a system to measure the level of a company's effectiveness in generating profits.

Figure 2. PT Vale Indonesia Tbk's Area Operation



Source: PT Vale Indonesia Tbk Annual Report 2023

2. LITERATURE REVIEW

A literature review is a "comprehensive study and interpretation of literature that addresses a specific topic" (Aveyard, 2010).

2.1. Financial Statement

Financial statements are written reports that indicate the responsibility of the management or company leaders to the interested parties. The financial statement detail information can be used to predict the company's earnings and dividends in the future (Bringham and Hoston, 2010). Investors are usually interested in the company's financial statements because the reports can help them to predict the returns or profitability level that will be obtained by the investors in the future. This analysis study uses secondary data from PT Vale's audited and consolidated Financial Statement Annual reports for the periods of 2018 – 20123.

2.2. Financial Statement Analysis

Financial Statement Analysis is a comprehensive and useful report to help anticipate future company conditions (Brigham and Houston, 2010). The reports are being analyzed or evaluated by using Financial Ratios Analysis (FRA). Furthermore, the Financial Ratios are being used to analyze the financial condition and the overall performance of the company (James Van Horne, 2005).

In this analysis study, several ratios are being used to analyze PT Vale's financial condition and its performance and will be tested by using The Du-Pont system theory. Furthermore, the end-analysis findings would be expected to show PT Vale Indonesia Tbk Financial Health and Operational Efficiency.

a. **Liquidity Ratio**
   A ratio that indicates the relationship between cash and current assets of the company with current liabilities. This type of ratio shows PT Vale's ability to pay off debt on the due date.
b. **Solvency Ratio**
   The solvency ratio or financial leverage ratio indicates PT Vale's capacity to meet both short-term and long-term obligations.
c. **Activity Ratio**
   The activity ratio measures the effectiveness of asset management in PT Vale. If the company has too many assets, the capital costs will be too high, and the profits will be depressed. On the other hand, if the company's assets are too low, the company will lose profitable sales.
d. **Profitability Ratio**
   This ratio shows the combination of the effect of PT Vale's liquidity, asset management, and debt on operating results.

2.3. The Du-Pont System Theory

The Du-Pont System Theory is a financial ratio system designed to investigate the determinants of return on shareholder's equity ratio and return on assets (Keown et al., 2004). The Du-Pont system measures the effectiveness level of the company in generating profits. This system illustrates the factors that interrelate and influence the return on investment (ROI) of a company and the rate of return on equity (ROE).

3. RESEARCH METHODOLOGY

The research uses the quantitative descriptive methodology of Financial Ratio Analysis (FRA) as stated in the Decree of the Minister of BUMN No. KEP-100 / MBU / 2002 was issued by the Indonesia Ministry of State-Owned Enterprises (SOEs) in June 2002.

The Financial Ratio Analysis (FRA) is being used to gain insight into PT Vale's financial health condition such as liquidity, solvency, activity, and profitability performances. And by analyzing PT Vale's financial statements, the ratio analysis can help evaluate various aspects of its performance. In this case, the overall analysis result will also be tested by using The Du-Pont system theory. The following ratios are being used as an operational definition of the research methodology.

3.1. Liquidity Ratio

3.1.1. Net Working Capital: This kind of ratio is used to find out PT Vale's ability to pay off current debt. The ratio of net working capital is calculated by reducing current assets to current debt.

3.1.2. Current Ratio: The current ratio is used to measure PT Vale's ability to meet short-term obligations or debt that will be due soon. The current ratio is calculated by multiplying current assets by 100% and then dividing by current debt.

3.2. Solvency Ratio

3.2.1. Debt Ratio: This ratio indicates how much of the overall assets of PT Vale is being spent on debt. The debt ratio is calculated by multiplying total debt by 100% and then dividing by total assets.

3.2.2. Debt Equity: This ratio is used to assess debt with equity. The debt-to-equity ratio is calculated by multiplying long-term debt by 100% and then dividing by own capital.

3.3. Activity Ratio

3.3.1. Inventory Turnover Ratio: This type of ratio is being used to measure the number of times the funds invested in inventory revolve in one period. The inventory turnover ratio is calculated by dividing the cost of goods sold by inventory.

3.3.2. Fixed Asset Turnover: This ratio is used to measure how many times the invested funds in fixed assets circulate in one period. The ratio of fixed assets turnover is calculated by dividing sales by inventory.

3.4. Profitability Ratio

3.4.1. Gross Profit (GP) Margin: This type of ratio is used to determine PT Vale's revenue derived from sales. The higher the Gross Profit Margin, the better the company's operating activities. The ratio of gross profit (GP) margin is calculated by reducing sales and cost of goods sold (COGS), then multiplied by 100% and divided by sales.

3.4.2. Net Profit (NP) Margin: This ratio is used to measure net profit margins after-tax interest on net sales. The ratio of net profit margin is calculated by multiplying the after-tax income by 100% and then dividing it by sales.

3.5. The Du-Pont System Theory

The Du-Pont System Theory or Du-Pont Analysis is a financial ratio used to analyze and evaluate a company’s overall performance, originally devised in the 1920s by Donaldson Brown at DuPont Corporation, the chemical company. It is a useful analysis methodology to deconstruct return on equity (ROE) to investigate the main drivers of the company’s profitability. As explained by Blumenthal (1998), the Du-Pont model helps to visualize financial information and is a helpful tool for gaining a better understanding of how operating, financing, and investment decisions impact a company's financial performance (Melwin et al, 2014; Voorhis, 1981).

The Du-Pont Analysis highlights 3 major financial aspects that drive Return On Equity (ROE) such as :

a. Net Profit Margin (operating efficiency), measured by net income divided by total sales or revenue.
b. Asset Turnover Ratio (asset use efficiency), measured by revenue divided by the average total asset.
c. Financial Leverage (the equity multiplier), is measured by average total assets divided by average equity.

Figure 3. The Du-Pont Analysis Ratio Component

$$\text{DuPont Analysis} = \text{Net Profit Margin} \quad \text{Asset Turnover} \quad \text{Financial Leverage}$$

$$\frac{\text{Net Income}}{\text{Revenue}} \times \frac{\text{Revenue}}{\text{Average Total Assets}} \times \frac{\text{Average Total Assets}}{\text{Average Shareholders' Equity}}$$

$$\frac{\text{Net Income}}{\cancel{\text{Revenue}}} \times \frac{\cancel{\text{Revenue}}}{\cancel{\text{Average Total Assets}}} \times \frac{\cancel{\text{Average Total Assets}}}{\text{Average Shareholders' Equity}}$$

$$\frac{\text{Net Income}}{\text{Average Shareholders' Equity}}$$

Source: Wallstreet Prep

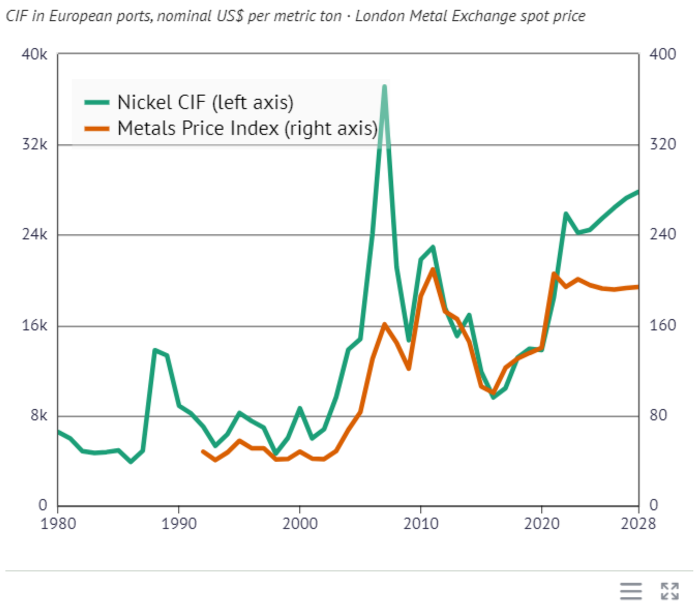
The Return on Equity (ROE) ratio was developed by Du-Pont for use many years ago and is now being used by a lot of companies, especially when the company would like to analyze and evaluate its overall performance efficiency by combining the effects of net Profit Margins, Asset Turnover and Financial Leverage (Daryanto, 2023). In the case of PT Vale’s Financial Statement Analysis, the return on equity (ROE) ratio is a measure of the rate of return to the stockholders.

a. Return on equity (ROE) measures a company's net income divided by its average shareholders' equity.
b. ROE is a gauge of a corporation's profitability and how efficiently it generates those profits.
c. The higher the ROE, the better a company is at converting its equity financing into profits.
d. To calculate ROE, divide net income by the value of shareholders' equity.
e. ROE will vary based on the industry or sector in which the company operates.

4. RESULTS AND DISCUSSION

The overall Nickel Commodity Price situation has significant implications for PT Vale’s stock price and investor’s return. Higher Nickel Prices generally translate into higher revenues and profitability for nickel producers, leading to an increase in their stock prices. Conversely, lower nickel prices can negatively affect their financial performance and stock valuations. Nickel price fluctuation also influences investor returns, during periods of high nickel prices, investors holding PT Vale’s stocks will experience substantial gains as PT Vale's earnings and stock prices rise. On the other way around, during periods of low nickel prices, investors may face losses or lower returns due to PT Vale's decreased profitability.

Figure 4. IMF Nickel Price Forecast



2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
13,114	13,914	13,790	18,467	25,867	24,184	24,447	25,463	26,406	27,257

Source: Nickel Price Forecasts: Long-Term 2021 to 2030 | Data and Charts - Knoema.com

The worldwide nickel price forecast highlights the cyclical nature of nickel prices and the potential impact on nickel companies' stock prices and investor returns. The sentiment towards investing in nickel companies can be interpreted as positive investor sentiment when the forecast shows periods of high nickel prices, as it implies potential for higher returns. Around 2007 and 2025 were notable price spikes indicating periods of high nickel prices. Conversely, when the forecast shows periods of relatively low nickel prices can be viewed as a negative sentiment for investors, as it may lead to lower returns or potential losses such as around 2016 and the early 2020s.

As one of the nickel companies, PT Vale was also exposed to fluctuations in nickel price risk. The operations and financial performance may be adversely affected by the price of nickel which in turn will be determined by worldwide nickel supply and demand. PT Vale actively manages these risks by adjusting production schedules and mining operations as necessary to reduce the impact of price volatility.

For the year ended December 31, 2023, if the average price of nickel had increased/decreased by 6%, with all other variables held constant, PT Vale's pre-tax profit would have increased/decreased by US$73.9 million (full amount).

On December 31, 2023, and 2022, under a good Risk Management Strategy carried out by its Board of Directors, PT Vale did not have any financial instruments whose value was directly linked to movements of the world nickel price. Therefore, the fluctuation of the world nickel price only has a minimal impact on the carrying amount of PT Vale's financial instruments.

Figure 5. PT Vale Indonesia Tbk's Overall Performance Analysis

***Expressed in thousands of US Dollars**

Ratio	Formula	State as	2021	2020	2019	2018	2017
Price/Earning Ratio	Market price per share / Net Income per share	Times	**0.0395**	**0.0214**	**0.0447**	**0.0366**	**-0.1409**
Market price per share			0.000328	0.000358	0.000259	0.000223	0.000211
Net Income per share			0.0083	0.0167	0.0058	0.0061	-0.0015
Return on Asset (ROA)	Net Income after interest and tax / Total Asset	Percent	**6.70%**	**3.58%**	**2.58%**	**2.75%**	**-0.70%**
Net Income after interest and tax			165,797	82,819	57,400	60,512	-15,271
Total Asset			2,472,828	2,314,658	2,222,688	2,202,452	2,184,559
Return on Invested Capital (ROIC)	Net Income after interest and tax / (Long Term Liabilities + Total Equity)	Percent	**7.19%**	**3.84%**	**2.42%**	**2.58%**	**-0.74%**
Net Income after interest and tax			165,797	82,819	57,400	60,512	-15,271
Long Term Liabilities			149,937	133,560	144,443	143,385	235,892
Total Equity			2,154,461	2,020,388	2,222,688	2,202,452	1,819,367
Long Term Liabilities + Total Equity			2,304,398	2,153,948	2,367,131	2,345,837	2,055,259
Return on Equity (ROE)	Earning After Interest and Tax / Total Equity	Percent	**7.70%**	**4.10%**	**2.58%**	**2.75%**	**-0.84%**
Earning After Interest and Tax			165,797	82,819	57,400	60,512	-15,271
Total Equity			2,154,461	2,020,388	2,222,688	2,202,452	1,819,367

Source: PT Vale Indonesia Tbk Annual Report 2017-2021

Figure 6. Return on Equity (ROE) PT Vale Indonesia Tbk

Ratio	Trend	2021	2020	2019	2018	2017
Return on Equity (ROE)		7.70%	4.10%	2.58%	2.75%	-0.84%

Source: PT Vale Indonesia Tbk Annual Report 2017-2021

From Figure 4. Return on Equity (ROE) measures the profit earned from shareholders' equity. It indicates the net income earned from the capital shareholders invested in the business. PT Vale's ROE increased steadily from 2017 to 2021, with a huge jump from 4.10% in 2020 to 7.70% in 2021. This means for every dollar shareholder invested in the business it generated 7.70% profit. This shows an increasingly efficient use of the company's equity which means capital is used more and more effectively to generate more profit. This could be due to the increasing expansion of PT Vale's business lines and opportunities over the years due to the demand for both nickel and their contracts growing.

Figure 7. Net Income PT Vale Indonesia Tbk

Ratio	Trend	2021	2020	2019	2018	2017
Net Profit Margin		17.39%	10.83%	7.34%	7.79%	-2.43%

Source: PT Vale Indonesia Tbk Annual Report 2017-2021

The Net Income or Net Profit Margin tells us the percentage income earned by the business after considering operating, tax, interest, administrative, and other costs. Vale Indonesia managed to recover from a net profit margin of -2.43 % in 2017 to 17.39% in 2021. There was a slight drop in net profit from 2018 to 2019, perhaps due to an increase in fixed assets and inventory investment. This could also be the time when Vale was investing more in building smelters, especially with incoming partnerships with China and Japan. These investments proved to be fruitful as they boosted Vale's Net Profit Margin in the coming years after 2019.

Figure 8. Asset Turn Over PT Vale Indonesia Tbk

Ratio	Trend	2021	2020	2019	2018	2017
Asset Turnover		0.39	0.33	0.35	0.35	0.29

Source: PT Vale Indonesia Tbk Annual Report 2017-2021

The asset turnover ratio measures the efficiency of a company's assets in generating sales revenue. It is calculated by taking the company's sales revenue and dividing it by its total assets. Vale Indonesia's asset turnover rose from 0.29 in 2017 to 0.35 in 2018 and 2019. It dropped slightly in 2020, perhaps due to the covid-19 pandemic before jumping back to 0.39 in 2021. Overall, Vale Indonesia's asset turnover ratio is considered good as it is a sector with a high number of fixed assets in property, plant, and equipment.

Figure 9. Finance Leverage Ratio PT Vale Indonesia Tbk

Ratio	Trend	2021	2020	2019	2018	2017
Financial Leverage Ratio		1.15	1.15	1.00	1.00	1.2

Source: PT Vale Indonesia Tbk Annual Report 2017-2021

The financial leverage ratio measures how much capital comes in the form of debt or the ability of a company to meet financial obligations. This is important as companies rely on a mixture of equity and debt to finance operations. Vale Indonesia's Financial Leverage ratio shows a relatively steady trend, staying between 1 to 1.2 from 2018 to 2023 is slightly above 1 which means they are using more debt financing rather than equity financing. A leverage ratio above 1 is considered good for industry standards.

Figure 10. Financial Ratios PT Vale Indonesia Tbk's

Rasio Keuangan
Financial Ratios

Uraian Description	2023	2022	2021
Rasio Likuiditas Liquidity Ratio			
Rasio Lancar Current Ratio	4.77	5.65	4.97
Rasio Cepat Quick Ratio	4.05	4.76	4.00
Rasio Leverage Leverage Ratio			
Rasio Liabilitas terhadap Ekuitas Debt to Equity Ratio	14.09%	12.88%	14.77%
Rasio Liabilitas terhadap Aset Debt to Assets Ratio	12.35%	11.41%	12.87%
Rasio Aktivitas Activity Ratio			
Periode Penagihan (Hari) Receivables Turnover (Days)	36	37	31
Periode Persediaan (Hari) Inventory Turnover (Days)	87	84	100
Rasio Profitabilitas Profitability Ratio			
Margin Laba Bersih Net Profit Margin	22.26%	16.99%	17.39%
Margin Laba Kotor Gross Profit Margin	28.16%	26.59%	26.11%
Rasio Laba (Rugi) terhadap Pendapatan Operational Margin	24.52%	23.06%	23.40%
Rasio Laba (Rugi) terhadap Ekuitas Return on Equity (ROE)	10.70%	8.51%	7.70%
Rasio Laba (Rugi) terhadap Aset Return on Assets (ROA)	9.38%	7.54%	6.70%

Source: PT Vale Indonesia Tbk Annual Report 2021-2023

From the analysis of PT Vale's Financial Report above, it is shown that PT Vale's current Ratio and Quick Ratio in 2023 were respectively 4.77 and 4.05. Liquidity Ratio is used to calculate the PT Vale's ability to fulfil short-term obligations.

The Liability to Asset Ratio and Liability to Equity Ratio in 2023 were respectively 12% and 14%. The Leverage Ratio is used to calculate PT Vale's ability to fulfill all obligations if the company is liquidated.

Activity Ratio is a measure used to calculate PT Vale's effectiveness in utilizing all resources under its control. The 2023 Inventory Turnover Ratio and Collection Ratio were 36 days and 87 days respectively.

In calculating the net-end result of various policies and management decisions, PT Vale uses Profitability Ratios which will provide an overview of the effectiveness of management in managing the company. In 2023, the percentage of Profit (Loss) to Equity was 11.15%, Profit (Loss) to Assets was 9.83%, Gross Profit Margin to Sales was 28.16%, Net Profit Margin to Sales was 22.26%, and Profit (Loss) Margin to Revenue was 24.52%.

5. CONCLUSION

The conclusion of PT Vale's Financial Performance for the period of 2018-2023, finds that PT Vale's management could run a smooth operation strategy to achieve healthy financial performances and operational efficiency in terms of profitability. As a result, the overall achievement increases positive issues on the market and impacts PT Vale's stock prices which means investors are willing to pay more for the company's shares.

This study added knowledge to the financial literature and also gave strong insight for the investors in nickel commodity shares associated with PT Vale's financial performance. Therefore, the investors could make informed decisions to increase their returns and level of profitability in PT Vale stocks based on the following analysis and evaluation.

1. The Return On Equity (ROE) analysis shows an increasingly efficient use of PT Vale's equities which means capital is being used more effectively to generate more profit. This could be due to the increasing expansion of PT Vale's business lines and opportunities over the years in line with the nickel demand and PT Vale's contract growth. The higher the PT Vale's ROE the better the company is, especially in converting their equity financing into profit.

2. PT Vale's Net Income increased at the time when they invested more in building smelters, especially with the mutual partnerships with Chinese investors. The investments proved to be fruitful as they boosted PT Vale's Net Profit Margin in the coming years after 2019.

3. Even though PT Vale's Asset Turnover dropped slightly in 2020 due to the COVID-19 pandemic, it jumped back in 2021. Overall, PT Vale's asset turnover ratio is considered good as it is a sector with a high number of fixed assets in property, plant, and equipment.

4. PT Vale's financial Leverage Ratio for the period of 2018-2023 is slightly above 1 which means they are using more debt financing rather than equity financing. A leverage ratio above 1 is considered good for industry standards.

5. The Debt-to-Equity ratio is used to evaluate a company's financial leverage and is calculated by dividing a company's total liabilities by its shareholders' equity. It measures how much debt a company takes relative to its assets. Vale Indonesia's Debt-to-Equity ratio decreased from 20.07% in 2017 to 14.78% in 2021. This shows

that Vale used less debt to finance its operations over the years, which reduces the risk of default.

6. PT Vale's ROA shows an increasing trend from 2017 and increased drastically from 2020 to 2021 reaching 6.70%. This means that for every dollar invested into its assets, it returns a profit of 6.70%. This shows that PT Vale's asset management efficiency is growing from its negative returns in 2017. There was a slight drop in ROA in 2019 before it got back up in 2020 by 1%. The huge jump in ROA from 2020 to 2021 could also be attributed to the increasing business opportunities in the areas of Electric Vehicles, as well as foreign partnerships and investments, especially from China.

7. ROIC shows how efficient a company is at allocating capital to profitable investments. Similar to the ROA interpretation, PT Vale's ROIC shows an increasing trend from 2017 to 2021, reaching an all-time high of 7.19% in 2021. This means for every dollar invested into the company's capital, it returns a profit of 7.19%. It dropped slightly to 2.42% before moving back up. The business interpretation of ROIC for PT Vale is similar to ROA's.

6. ACKNOWLEDGEMENT

Based on the research result, to analyze Nickel mining company stock returns, investors should carefully consider multi-factor effects, not only from the side of the Company's Non-Financial and Financial Performance alone but also an external global market factors e.g. Price commodity fluctuation, Market Demand, and Supply dynamics, nickel company-specific factors, macroeconomic variables, risk management, etc. to make the most reasonable investment decisions and obtain the highest return on their investment.

1. Investors should be capable of monitoring Nickel Global Market Demand and Supply dynamics**.** Nickel prices can be very lucrative, the situation will significantly impact Nickel companies' profitability like PT Vale. Today, nickel demand is rising due to its use in the electric vehicles (EVs) industry and the situation makes it a potential commodity investment for the long term.

2. Company-specific Factors**,** The investors have to consider investing in well-established Nickel mining companies, and PT Vale Indonesia Tbk as one of the notable global nickel mining companies with steady business performance, can be one of the good choices.

3. Macroeconomic Variables e.g., Positive GDP growth tend to correlate with higher stock returns, and the overall market performance influences individual stock returns such as other commodity price fluctuations (e.g., gold) that mostly will also impact Nickel mining stocks.

4. Risk Management e.g., Nickel Mining businesses are cyclical, and stock prices can fluctuate with nickel market prices fluctuation. Diversifying the investment can mitigate risk, Geopolitical tensions (e.g., Russia's invasion of Ukraine) can affect global supplies of nickel. Stay informed about such a situation.

In summary, It is highly recommended that investors should analyze the overall industry-specific factors and broader economic factors when they would like to consider nickel mining stocks as a potential long-term commodity investment. Conducting deeper research, assessing and measuring the company's financial performance health such as their liquidity, solvency, activity, and profitability performances carefully and always staying engaged with the commodity market trends globally to make good investment decisions and obtain the highest investment return.

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CHAPTER 12

Financial Performance Analysis and Evaluation of PT. Pabrik Kertas Tjiwi Kimia Tbk (TKIM) 2018–2023, Before and During COVID-19

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ABSTRACT

PT. Pabrik Kertas Tjiwi Kimia Tbk (TKIM) stands as one of Indonesia's largest paper factories, boasting an impressive annual production capacity of 1,200,000 metric tons. This paper mill specializes in the manufacturing of paper, packaging materials, and a variety of school and office stationery products. However, the emergence of the COVID-19 pandemic in 2019 triggered a series of challenges for the paper industry worldwide. With restricted activities, including work and school shutdowns, the demand for paper products experienced a significant decline, which could be impacting the financial performance of paper factories. This research aims to conduct a comprehensive analysis of the financial statements of PT. Pabrik Kertas Tjiwi Kimia Tbk for the period from 2018 to 2023, with a particular focus on the impact of the COVID-19 pandemic. The analytical process employed involves descriptive analysis, utilizing key financial ratios to assess liquidity, solvency, activity, and profitability trends. Through this analysis, insights into the financial performance of PT. Pabrik Kertas Tjiwi Kimia Tbk before and during the onset of COVID-19 will be unveiled, shedding light on the company's resilience and adaptation strategies amidst challenging market conditions. TKIM's able to effectively manage its financial resources and strategies, enabling the company to withstand and recover from the severe economic disruptions caused by the COVID-19 pandemic. PT. Pabrik Kertas Tjiwi Kimia Tbk (TKIM) provided significant insights into the company's financial resilience and adaptability from 2018 – 2023.
Keywords: Paper factory, Activity Ratio, Liquidity Ratio, Profitability Ratio, Solvency Ratio.

INTRODUCTION

Indonesia is known as one of the world's leading manufacturers of pulp and paper. Indonesia has established itself as a significant player in the global pulp and paper industry. With 84 pulp and paper mills, Indonesia is the third-largest manufacturer in Asia (Ismayati et al., 2017). The country's strong position in the market is a result of its wealth of natural resources, pleasant environment, and advantageous geographic location. Over the years, Indonesia's paper and pulp sector has experienced substantial growth, bolstered by abundant forest resources that supply the raw materials required for manufacture. Large-scale producers as well as smaller businesses make up this sector, which helps Indonesia rank among the top exporters of paper goods globally. Important goods that are shipped to many nations, such as the US, Japan, and Europe, are different kinds of paper, packaging materials, and tissue products. There is also a growing emphasis on enhancing value chain participation to ensure greater domestic value addition within Indonesia's pulp and paper industry (Ahmad et al., 2018). This focus on value addition is essential for maximizing the benefits derived from the industry and strengthening Indonesia's position in the global market (Saban et al., 2022).

TKIM is a major player in paper manufacturing. TKIM, which was founded in 1972 and is listed on the Indonesia Stock Exchange, runs one of Southeast Asia's most integrated pulp and paper factories. The company operates a highly integrated pulp and paper mill in Mojokerto, East Java, which includes production facilities for various types of paper and packaging products. The range of products offered by TKIM is extensive and includes writing, copying, packaging, printing, and specialized paper goods. This extensive selection of goods fulfills the demands of both domestic and foreign consumers while catering to a variety of sectors. The company, which produces a variety of paper goods such as writing, packaging, printing, and specialty paper, is well-known for its significant contributions to both the local and international markets. The activities of TKIM are distinguished by their magnitude and efficacy, since the organization possesses cutting-edge facilities that allow it to satisfy demanding demands for excellent quality at enormous volumes. The company's dedication to sustainability and innovation has also made it a pioneer in the industry when it comes to implementing eco-friendly methods. By ensuring that resources used during production are renewable with minimal CO_2 emissions, companies like TKIM can enhance their sustainability performance (Abdul-Rashid et al., 2017). Moreover, the adoption of sustainable practices can lead to cost advantages through the implementation of best environmental management practices (Christmann, 2000).

The extensive global reach of TKIM's export distribution to over 120 nations worldwide underscore the company's significant presence in international trade (Wagner, 2007). Various factors influence international trade, including logistics performance, gross domestic product (GDP), and environmental considerations such as emissions from shipping activities. The US, Europe, Japan, Australia, and other Asian nations are important export markets. Because of Indonesia's superior access to important shipping lanes, its strategic position makes it possible for TKIM to distribute its products effectively to markets across the world. The company's export strategy is centered on maintaining a balanced worldwide market presence so that it can reduce the risks brought on by variations in the local economy. The foundation of TKIM's global reputation is its dedication to excellence, dependability, and client satisfaction. Products from the firm are renowned for their excellent quality and ability to satisfy a wide range of global consumer demands.

The world economy and industry have been greatly impacted by the COVID-19 epidemic. In Indonesia, the COVID-19 pandemic officially began when the first cases were reported in early March 2020. On March 2, 2020, the Indonesian government announced the confirmation of the first two COVID-19 cases. This marked the beginning of the COVID-19 outbreak in Indonesia, leading to various responses and measures being implemented by the government. The government swiftly recognized the threat posed by the virus and took actions in line with good governance principles to address the situation (Setyagama, 2022). Subsequently, the Indonesian government declared COVID-19 as a national disaster, highlighting the severity of the situation (Syahputra et al., 2022).

The COVID-19 pandemic significantly disrupted global supply chains across various industries and logistics sectors. The disruption made it challenging for firms to achieve and maintain operational excellence in their supply chain operations (Mishra et al, 2021). Restrictions and quarantines caused bottlenecks and delays in transportation networks, making cross-border movement of products more difficult. In reaction, businesses started to reassess and modify their supply chain plans, emphasizing the development of resilience and the diversification of their supply sources in order to reduce potential risks. Due to lockdowns and other social distancing measures, the pandemic also drastically changed consumer behavior, causing a sharp shift towards internet buying. The disruption affected both manufacturing processes and systems and caused extreme shifts in demand and supply due to supply chain disruptions (Okorie et al., 2020). Consumers prioritized health and wellness-related products, which increased demand for sanitizers, masks, and exercise equipment. Many chose to save more and cut back on discretionary spending due to the uncertain state of the economy, which influenced businesses that depended on non-essential commodities.

Remote work significantly increased during the COVID-19 pandemic, leading to shifts in consumer preferences and spending habits. This transition resulted in higher spending on broadband connections, home office supplies, and home renovation items as individuals adjusted to working from home (Nagel, 2020). As lockdowns and social distancing measures were implemented globally, the demand for certain paper products experienced significant shifts. Office and educational institutions moving to remote operations led to a decline in demand for office supplies, printing paper, and school-related paper products. Conversely, the rise in e-commerce and home deliveries during the pandemic fueled a surge in demand for packaging materials. The rise in e-commerce activities also prompted discussions on sustainable packaging practices and the need for circular models to reduce the demand for virgin packaging materials (Alkhunaizan & Ashraf, 2022; Qi et al., 2022).

This paper aims to analyze and evaluate the financial performance of PT. Pabrik Kertas

Tjiwi Kimia Tbk over the period from 2018 to 2023, covering both the pre-COVID-19 era and the pandemic period. Global sectors faced previously unheard-of difficulties as a result of the COVID-19 pandemic, including significant supply chain disruptions, changes in consumer demand, and unstable economic conditions. This study aims to comprehend how TKIM, a significant participant in Indonesia's paper and pulp sector, overcame these obstacles and what financial tactics were used to maintain operations and performance. Moreover, studies on the impact of agency conflicts on corporate governance and financial performance can highlight the importance of effective governance mechanisms in ensuring financial success (Kasbar et al., 2022).

LITERATURE REVIEW

Financial performance is one of the indicators of the company's achievement in a period in terms of financial aspects related to income, operating costs, debt, assets and company investment results. Financial performance is used by the company to assess the prospects, growth, and potential development that has been achieved by the company (Mazliza, 2023). This is reinforced by Amelya, B (2021) Financial report analysis is a useful tool for evaluating a company's financial performance. Obtaining knowledge of a company's financial performance and state requires analyzing its financial reports. Typically, the study entails looking over a number of financial accounts, such as the cash flow, income statement, and balance sheet. The assessment of financial performance involves utilizing different metrics and methodologies, including profitability and efficiency ratios, leverage, and liquidity ratios, particularly in the context of mergers and acquisitions within the banking sector (Shrestha et al., 2018). Furthermore, the application of techniques like Fuzzy MCDM for evaluating financial performance highlights the crucial role of such assessments in competitive business environments (Ghadikolaei et al., 2014). Tools such as the Balanced Scorecard offer a comprehensive overview of business operations by measuring performance across financial, customer, internal business processes, and organizational development perspectives (Taylor & Baines, 2012).

Ratio financial analysis is a fundamental tool for evaluating a company's financial performance over time by examining and contrasting specific elements from the income statement and balance sheet. This analysis involves the calculation of various ratios such as profitability, liquidity, and solvency ratios to gain insights into the company's financial health and operational efficiency (Indah, 2024). Based on Marfiana (2019), ratio financial analysis can be carried out by examining and contrasting specific elements included in the income statement and balance sheet. Ratio analysis, like profitability, liquidity, and solvency ratios, is crucial in understanding a company's financial performance over time (Annisa, 2023). By utilizing ratios derived from both the income statement and balance sheet, analysts can gauge the company's performance and make informed decisions (Christensen & Nikolaev, 2011).

Profitability Ratio

Profitability ratios are crucial metrics used to assess a company's ability to generate profits from sales and investments over a specific period. These ratios, such as return on assets (ROA), net profit margin, and economic profitability, offer valuable insights into a company's financial performance (Hamsyah, 2023). Analyzing profitability ratios is vital for evaluating a company's effectiveness in generating profits and efficiently managing its operations (Miransyah et al., 2021). Understanding the relationship between profitability ratios, such as ROA and net profit margin, and other financial indicators like current ratio and dividend yield ratio, can provide valuable insights into stock price movements and investment decisions (Sunaryo, 2022).

According to Brigham and Houston (2018), a profitability ratio is a collection of ratios that displays the outcomes of the company's asset and debt management. The higher the company's profitability ratio, the better the company manages its equity, liabilities, and assets to create profits. Reinforced by Amalia et al. (2021), the profitability ratio is a measure of an organization's ability to generate income from sales compared to the number of sales or active sales.

Liquidity Ratios

The liquidity ratio, according to Brigham and Houston (2018), is a ratio that illustrates the connection between the company's short-term liabilities and its cash and other current assets. A high liquidity ratio indicates that the business can pay its current liabilities using its available assets. On the other hand, an excessively high liquidity ratio suggests that the business is not managing its current assets as effectively and efficiently. Meanwhile, Fandanu (2021), describes the liquidity ratio as a method to determine if a company's present assets may be used to satisfy or pay off the company's debts. (Nasution, 2018) states that a company's ability to settle its short-term loan commitments will also be improved if its liquidity ratio is higher. The current ratio and quick ratio are common liquidity ratios used to assess a company's liquidity position (Sihombing, 2024). The current ratio compares a company's current assets to its current liabilities, indicating its ability to settle short-term debts with available assets. On the other hand, the quick ratio, also known as the acid-test ratio, provides a more stringent measure of liquidity by excluding inventory from current assets.

Liquidity ratios are crucial for evaluating a company's ability to meet short-term obligations using current assets. Research has shown that analyzing liquidity ratios through the statement of cash flows can provide valuable insights into a company's financial health (McGowan et al, 2015). Additionally, examining the liquidity ratio performance of companies within particular industries, like the textile industry, can provide comparative insights into financial statement performance (Jufri, 2023). By considering these findings, a comprehensive analysis of liquidity ratios and their impact on financial performance can be conducted for TKIM.

Solvency Ratio

A company's ability to meet its short- and long-term financial obligations can be gauged, in general, by looking at its solvency ratio, as explained by Kasmir (2015). The solvency ratio is a number that gauges how well a corporation manages its debt, according to Brigham and Houston (2018). There is more risk involved with using debt as a financing source than equity. If the interest costs are manageable, using debt can help the business. A high solvency ratio suggests that the business is having trouble making its debt payments.The solvency ratio is calculated by dividing available capital by the capital requirement, providing insights into a company's financial strength (Mukhtarov et al, 2021). Research has shown that the solvency ratio is essential for evaluating insurance companies' ability to finance operations and manage insurance wealth efficiently (Sukmaningrum et al., 2023). Additionally, understanding the determinants of solvency for both conventional life insurers and takaful operators is crucial for policyholders to evaluate financial strength (Yakob et al., 2012).

Moreover, the solvency ratio is a key component of prudential regulation, providing information on a company's financial health and regulatory compliance (Flier et al., 2003). Studies have highlighted the importance of solvency ratios in predicting bankruptcy, alongside liquidity and profitability ratios (Brédart, 2014). Empirical evidence on the informativeness of reported solvency ratios is essential for stakeholders to understand the effectiveness of regulatory tools (Grochola & Schlütter, 2023). Furthermore, the solvency ratio is considered more significant than profitability ratios in assessing a company's financial health and evaluating potential suppliers (Nikou & Moschuris, 2014).

Analyzing the solvency ratio is integral to enterprise financial analysis, encompassing both short-term and long-term solvency considerations (Fan, 2022). The solvency ratio reflects a company's ability to fulfill obligations using personal capital or loans, providing insights into risk exposure (Palupi, 2023). Additionally, the solvency ratio is crucial for assessing capital structure, with differing opinions on the impact of debt on a company's financial health (Steinberga & Millere, 2017). Effective liquidity and solvency management are fundamental components of financial management, influencing investment attractiveness and competitiveness (Liuta et al., 2019).

METHODOLOGY

The data used in this research consists of secondary sources, including the company's financial reports and other relevant resources. Specifically, the data pertains to TKIM companies listed in the IDX Quality 30 index on the Indonesia Stock Exchange (IDX) for the period from 2018 to 2023. By analyzing the financial statements and other pertinent materials from these years, the research aims to uncover trends, patterns, and insights relevant to the financial performance and strategic decisions of TKIM companies within this timeframe. A notable aspect of this period is the onset of the COVID-19 pandemic, which significantly impacted Indonesia in early 2020. This event had widespread effects on the economy and financial markets, adding a layer of complexity and importance to the analysis. By examining data before, during, and after the pandemic's initial impact, the research seeks to understand how TKIM companies navigated these unprecedented challenges and adapted their strategies in response to the evolving economic landscape.

From this data, a comprehensive financial performance analysis will be conducted using several key financial ratio indicators: profitability ratio, liquidity ratio, and solvency ratio. The profitability ratio will evaluate the profitability of the business in relation to its equity, assets, and revenue. It will also shed light on how profit is made and how efficiently operations are run. The liquidity ratio assesses the company's operational effectiveness and financial health by determining how well it can use its most liquid assets to pay short-term obligations. The solvency ratio will assess the company's ability to pay off its long-term debts and commitments, providing insight into its level of risk and stability. The analysis will provide a thorough insight of the company's financial situation, operational performance, and overall fiscal health over the investigated time by utilizing these financial ratios.

The profitability ratio used in this research is net profit margin:

$$Net\ profit\ margin\ = \frac{Earning\ after\ interest\ and\ taxes}{Sales} \times 100\%$$

Veronica (2022) states that, generally speaking, a company's capacity to turn a profit at a given sales level is indicated by a greater NPM, whereas a lower NPM is indicative of managerial inefficiencies.

The liquidity ratio used in this research is current ratio :

$$Current\ ratio\ = \frac{Current\ assets}{Current\ liability} \times 100\%$$

According to Stepanyan (2014), the fixed rule for current ratio is that the value ratio is between 1 and 2. This value shows that the company has a good performance in terms of liquidity. A value ratio over 2 shows that the current asset has a problem. A value ratio under 1 shows that the current asset is not capable of paying the current debt.

The solvency ratio used in this research is debt equity ratio :

$$Debt\ equity\ ratio\ = \frac{Total\ debt}{Total\ equity} \times 100\%$$

Still referring to the measurement standards mentioned by Kasmir (2015), according to him the average standard value of this ratio is 90%.

ANALYSIS

Based on the results of research conducted on PT. Pabrik Kertas Tjiwi Kimia Tbk (TKIM) during the period from 2018 to 2023, a detailed financial ratio analysis was performed to assess various aspects of the company's financial health and performance. The company's profitability, liquidity, and solvency were all assessed in depth, and the results gave valuable information about how well-positioned it is to make money, pay short-term debt, and maintain lengthy financial stability.

Profitability Ratio TKIM

The profitability ratio analysis revealed the company's ability to generate earnings relative to its revenue, assets, and equity. This analysis showed how well TKIM used its resources to generate profit throughout the specified period, using the Net Profit Margin (NPM) as a key indicator. This presented insights into the operational efficiency and profit-generating potential of the organization. The NPM gives a detailed picture of the profitability of the business by measuring the precise percentage of revenue that converts to net profit. By using this indicator, the analysis was able to demonstrate how well TKIM manages expenses overall in relation to its income and how well it converts sales into actual profit. Wurarah conducted a study on rural banks in Manokwari, utilizing net profit margin as a measure of profitability alongside other ratios like return on assets and stock exchange performance. This study emphasizes the importance of net profit margin in assessing the financial performance of banks (Wurarah & Mokodompit, 2020). Table 1 show profitability TKIM audited in Million US Dollar.

Year	EIAT	Sales	NPM
2018	$ 245.709	$ 1,055.800	23.272%
2019	$ 166.516	$ 1,047.118	15.902%
2020	$ 148.334	$ 866.453	17.120%
2021	$ 248.362	$ 1,024.459	24.243%
2022	$ 463.345	$ 1,143.593	40.517%

Table 3 Profitability TKIM

(Source: Author's data processing from TKIM Annual Report, 2018-2022)

During the COVID-19 pandemic in 2020, sales fell dramatically to $866.453 and EIAT to $148.334, while the NPM increased slightly to 17.120%. This demonstrates that despite a minor rise in the company's profitability ratio in 2019, the pandemic had a significant effect on sales and total earnings. However, in 2021, sales bounced back to $1,024.459 and EIAT increased to $248.362, with the NPM rising to 24.243%, almost back to the level of 2018. This suggests that, following the first effects of COVID-19, the company's profitability and operational efficiency have significantly recovered. Then, in 2022, sales reached $1,143.593 and the EIAT increased to $463.345, resulting in a significant increase in the NPM to 40.517%. This marked improvement suggests that the company not only recovered from the pandemic but also achieved a high level of profitability and efficiency. Figure 1 shows that net profit margin of TKIM in 2018 – 2022.

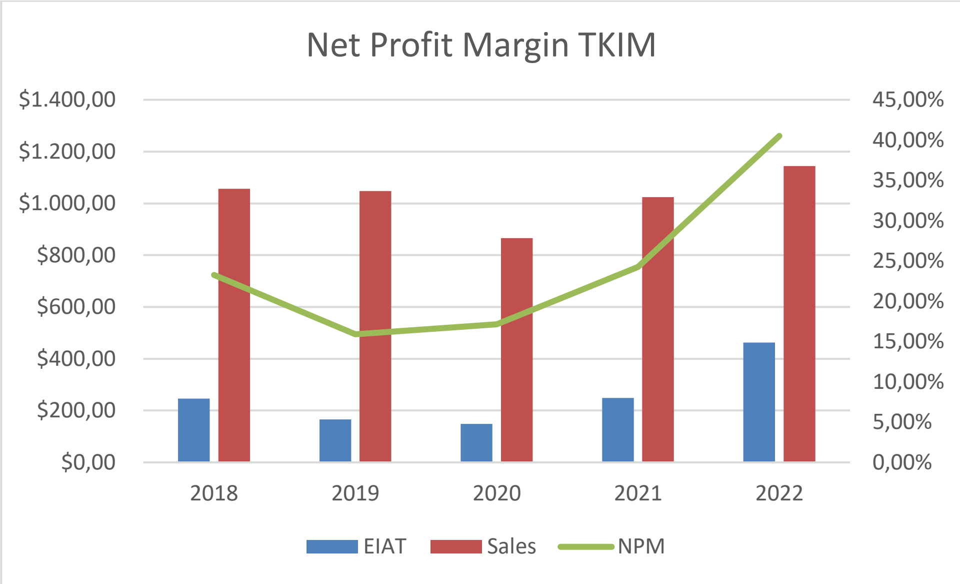

Figure 17 Net profit margin TKIM
(Source: Author's data processing from TKIM Annual Report, 2018-2022)

Impact of COVID-19 In 2020, the onset of the pandemic significantly affected TKIM's sales and earnings, as evidenced by the sharp drop in sales and EIAT. However, the company managed to maintain a relatively stable NPM, indicating resilience in its profit generation capability despite reduced sales. By 2021 and 2022, TKIM had recovered and grown remarkably, with sales and NPM rising significantly. The NPM increased sharply to 40.517% in 2022, indicating that the corporation had not only recovered from the epidemic but had also increased its profitability. Overall, TKIM's financial performance from 2018 to 2022 shows a dip during the pandemic but a strong recovery and growth in the subsequent years.

Liquidity Ratio TKIM

The current ratio is a fundamental liquidity ratio that measures a company's ability to cover its short-term liabilities with its short-term assets. Studies such as Eljelly (2004) and Sumantri & Albetris (2020) have utilized the current ratio as a key metric in evaluating financial performance. Additionally, research by Štefko et al. (2021) highlights the importance of the current ratio as part of a comprehensive analysis of liquidity, alongside other ratios like quick ratio and net working capital to assets ratio.

The liquidity ratio analysis focused on TKIM's capacity to meet its short-term obligations with its most liquid assets. By using the Current Ratio as a key indicator, this component of the analysis was essential to assessing the company's financial standing, especially in terms of its operational effectiveness and capacity to pay for short-term obligations without going bankrupt. The Current Ratio gives an overview of a company's liquidity and financial health by calculating how well it can pay short-term liabilities with short-term assets. This measure demonstrated the company's short-term financial stability and operational effectiveness by assessing how well TKIM handled its existing assets to guarantee it could meet its immediate financial obligations. Table 2 show liquidity TKIM audited in Million US Dollar.

Year	Current assets	Current liability	Current Ratio
2018	$ 941.679	$ 555.059	169.654%
2019	$ 879.074	$ 540.366	162.681%
2020	$ 837.038	$ 605.512	138.236%
2021	$ 805.333	$ 677.560	118.858%
2022	$ 850.762	$ 694.306	122.534%

Table 4 Liquidity TKIM

(Source: Author's data processing from TKIM Annual Report, 2018-2022)

The COVID-19 pandemic's financial challenges and operational challenges caused TKIM to experience a noticeable decrease in its current assets and an increase in its current liabilities from 2018 to 2022. It appears that TKIM was using its liquid assets to get through hard times, particularly during the height of the COVID-19 epidemic, based on the steady reduction in current assets from 2018 to 2021. The increase in current liabilities indicates the financial strain that the company experienced, maybe as a result of increased short-term borrowing and postponed payments during the epidemic. The combined effect of declining current assets and rising current liabilities during 2020 and 2021 shows significant liquidity pressure. TKIM's financial flexibility was signThe epidemic had a significant impact on TKIM's financial flexibility, forcing it to manage increased obligations with a limited amount of liquid assets. Implies endeavors to enhance the management of these responsibilities. The little rebound in 2022 signifies an enhancement in fiscal well-being as activities commenced to stabilize. TKIM appears to have started to recover from the pandemic's effects based on the minor improvement in current assets and the slower growth in liabilities in 2022. The company's endeavors to strengthen its financial position are apparent, demonstrating a shift towards improved liquidity management and operational stability. Figure 2 shows that current ratio of TKIM in 2018 – 2022.

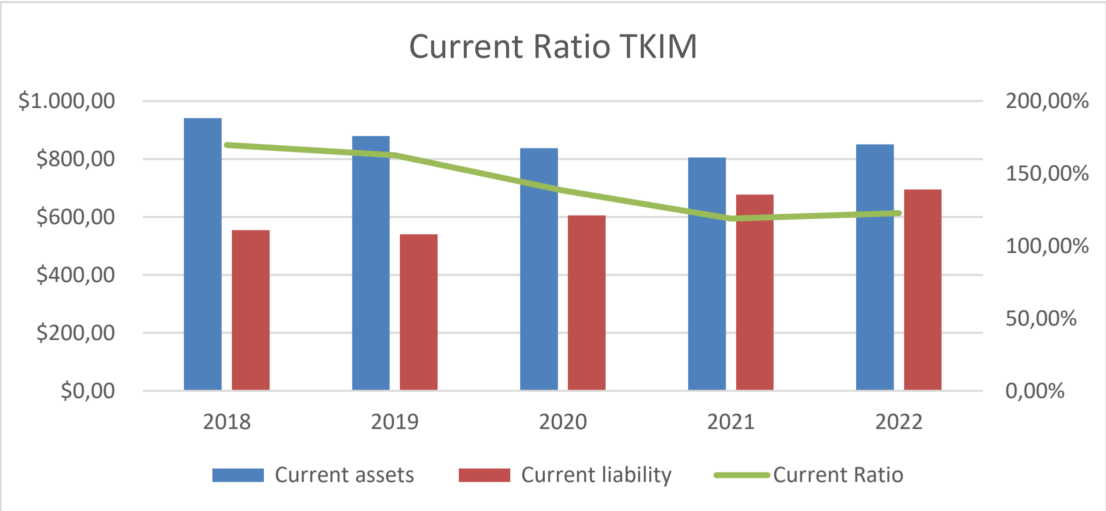

Figure 18 Current ratio TKIM

(Source: Author's data processing from TKIM Annual Report, 2018-2022)

Between 2018 and 2022, TKIM consistently maintained a Current Ratio between 100% and 200%, suggesting a favorable liquidity position over the whole period. The COVID-19 pandemic in 2020 had a discernible effect on the Current Ratio, resulting in a considerable decline. However, the organization successfully remained within the permissible limit, showcasing its resilience. By 2022, the Current Ratio showed indications of improvement, indicating that the corporation had successfully managed the difficulties presented by the pandemic and was on track to stabilize its financial situation. TKIM's financial performance in terms of liquidity remained strong despite the disruptions created by COVID-19.

Solvency Ratio TKIM

The solvency ratio analysis examined TKIM's ability to meet its long-term debts and obligations, offering a perspective on the company's financial stability and overall risk level. Comprehension TKIM's long-term financial viability and capacity to continue operations in the face of protracted economic hardships required a thorough comprehension of this portion of the investigation.

Analyze the solvency ratio, specifically the debt-to-equity ratio, various studies provide insights into its significance and impact on financial performance. The debt-to-equity ratio is a key solvency metric that indicates the proportion of a company's financing that comes from debt compared to equity. Research by Kusnandar & Sari (2020) focused on the effects of liquidity, solvency, and profitability on stock prices, highlighting the Debt Equity Ratio (DER) as a crucial measure. Additionally, Shintia (2017) emphasized the importance of the debt-to-equity ratio in assessing financial performance, indicating that it reflects the company's ability to cover its debts adequately. Moreover, the study by Nurhikmawaty et al. (2020) delved into the impact of the debt-to-equity ratio on stock returns, emphasizing its role in financial decision-making. Furthermore, Megaravalli & Sampagnaro (2019) highlighted a positive association between the solvency ratio and the likelihood of a firm becoming a high-growth SME, underscoring the importance of maintaining a strong solvency position. Table 3 show solvency TKIM audited in Million US Dollar.

Year	Total liability	Total equity	DER
2018	$ 1,729.951	$ 1,235.185	140.056%
2019	$ 1,677.008	$ 1,385.323	121.055%
2020	$ 1,557.024	$ 1,516.126	102.698%
2021	$ 1,403.474	$ 1,758.346	79.818%
2022	$ 1,326.532	$ 2,218.648	59.790%

Table 5 Solvency TKIM

(Source: Author’s data processing from TKIM Annual Report, 2018-2022)

There was a continuous decline in the overall amount of debts and obligations from 2018 to 2022. The most notable decreases happened after 2019, indicating actions taken to decrease leverage and reduce debt, potentially expedited by the financial difficulties caused by the epidemic. Total equity showed a consistent increase over the period, particularly from 2020 to 2022. This rise in earnings demonstrates the company's capacity to generate or maintain profits and potentially increase its ownership capital, so enhancing its financial stability. The COVID-19 pandemic in 2020 had an impact on TKIM, as evidenced by the alterations in DER. Nevertheless, the corporation successfully decreased its debts and bolstered its ownership stake throughout and following the epidemic, demonstrating resilience and astute financial management. Figure 3 shows that debt equity ratio of TKIM in 2018 – 2022.

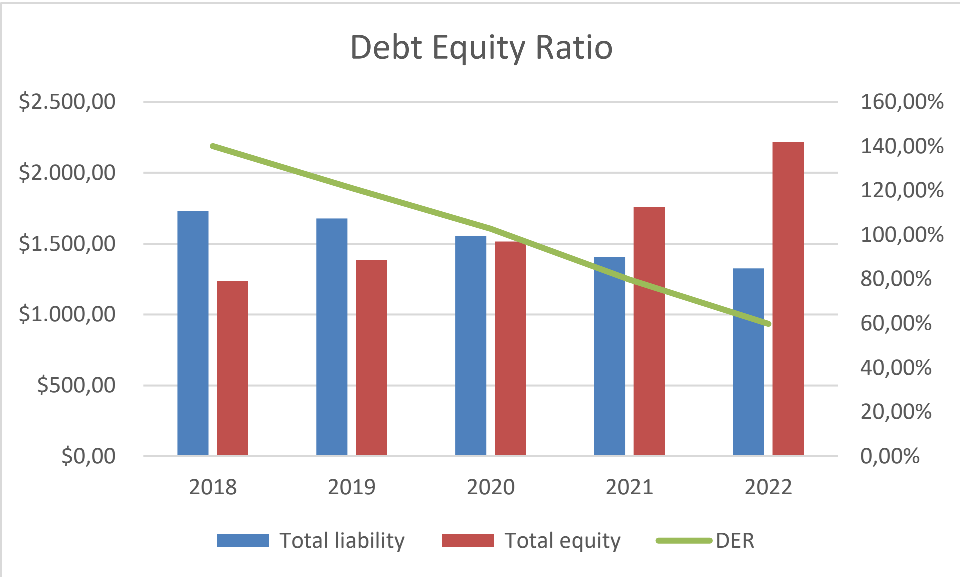

Figure 19 Debt equity ratio TKIM

(Source: Author's data processing from TKIM Annual Report, 2018-2022)

The path of the DER (Debt-to-Equity Ratio) exhibited a noticeable decline, transitioning from a high-risk level beyond 140% in 2018 to a favorable one below 60% in 2022. This trend signifies a notable decrease in financial risk and a transition towards a more secure and enduring financial framework. Between 2018 and 2022, TKIM's financial performance, as assessed by the Debt-to-Equity Ratio (DER), showed significant improvement. During the COVID-19 epidemic, the corporation decreased its need on borrowing and bolstered its ownership stake, particularly. As of 2022, TKIM had successfully attained a solid solvency position with a Debt-to-Equity Ratio (DER) that fell comfortably below the safe threshold. This indicates a healthy financial condition and a decreased level of financial risk. This strategic enhancement indicates that TKIM is in a favorable position for future expansion and

CONCLUSION

PT. Pabrik Kertas Tjiwi Kimia Tbk (TKIM) provided significant insights into the company's financial resilience and adaptability from 2018 – 2023. These years highlighted TKIM's ability to effectively manage its financial resources and strategies, enabling the company to withstand and recover from the severe economic disruptions caused by the COVID-19 pandemic. The comprehensive financial analysis of TKIM during this period reveals how the company navigated through initial financial stress, adapted its operations, and implemented strategic measures to maintain stability and achieve recovery. This timeframe serves as a testament to TKIM's robust financial management, strategic foresight, and operational efficiency, which collectively contributed to its ability to not only survive but thrive in the post-pandemic landscape.

Profitability (Net Profit Margin)

1. Profitability fluctuated from 2018 to 2023, with a significant drop in sales and profits in 2020.
2. Despite the pandemic, TKIM maintained a consistent NPM, indicating stable profit generation.
3. Post-pandemic, TKIM showed a significant rise in sales and NPM, highlighting improved operational efficiency and profitability.

Liquidity (Current Ratio)

1. The pandemic caused financial stress, leading to a drop in current assets and a rise in current liabilities from 2018 to 2021.
2. TKIM maintained a current ratio within the acceptable range, indicating good short-term financial control.
3. By 2022, there were signs of recovery with stabilized liabilities and improved current assets, reflecting better liquidity management and operational stability.

Solvency (Debt-to-Equity Ratio)

1. The DER analysis showed a notable reduction in financial risk over the period.
2. During and after the pandemic, TKIM effectively reduced its debt and increased equity.
3. By 2022, the DER fell below the safe level, indicating strong solvency and reduced financial risk.

Strategic Financial Management

1. TKIM's strategic focus on reducing leverage and strengthening financial stability was evident.
2. The company's resilience and sound management policies were key to maintaining profitability and improving financial indicators during the pandemic.

Post-Pandemic Recovery and Growth

1. TKIM exhibited a robust comeback and expansion in profitability and liquidity post-pandemic.
2. Strategic initiatives in debt reduction, financial health management, and equity enhancement positioned TKIM well for future stability and growth.

In conclusion, TKIM's financial performance from 2018 to 2023 demonstrates the company's capacity to adapt to and overcome significant economic disruptions. The study provides valuable lessons on the importance of strategic financial management, resilience, and effective governance in navigating global challenges and ensuring sustained growth and stability.

RECOMMENDATION

Based on the financial analysis of PT. Pabrik Kertas Tjiwi Kimia Tbk (TKIM) from 2018 to 2023, several solutions and recommendations can be made to further strengthen the company's financial resilience and ensure sustainable growth in the future:

liquidity management

TKIM should keeping a strong cash reserve and improving its working capital the first priorities. This covers simplifying inventory levels, enhancing credit control rules for quicker receivables collecting, and renegotiating better terms with suppliers. Establishing a contingency fund and keeping a strong cash reserve by means of frequent cash flow projections will help to give financial stability in times of unanticipated difficulty. TKIM can also concentrate on deleveraging by renegotiating better terms with creditors and using extra cash flow to pay back high-interest debt, hence lowering interest rates. These calculated moves will help TKIM to be more financially resilient and guarantee long-term operational stability.

Debt Reduction and Financial Leverage

Focus on reducing debt levels and improving financial leverage to minimize financial risk. Due in large part to significant interest payments and principal repayments, high debt can tax the company's cash flow. TKIM may improve its whole financial stability and liberate additional resources for investments in the company by giving debt reduction top priority. Using extra cash flow to pay off current debt is a main tactic for deleveraging since it helps to progressively reduce debt load without sacrificing operational demands. Another vital element is renegotiating better terms with creditors since it can result in reduced interest rates, longer repayment times, and more favorable covenants, thereby saving a great deal of money. These ideas will help TKIM improve its operational efficiency, financial resilience, and market competitiveness, so guaranteeing steady development and stability in the face of next obstacles.

TKIM greatly improves its financial resilience, therefore guaranteeing that the business is ready to weather next economic swings. By means of enhanced operational efficiency, TKIM will be able to maximize resource use, lower costs, and raise production, so improving its market position. Reducing debt and raising financial leverage will also help to lower financial risks and provide a more stable basis for development. By increasing market competitiveness, these calculated actions will help it to more seize new prospects. Finally, these initiatives will guarantee constant development and stability, therefore orienting TKIM for longterm success in an environment of fast economic move.

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CHAPTER 13

Financial Performance Analysis and Evaluation of PT XL Axiata Tbk for Years 2019-2023, Before and After the Implementation of 5G Network in Indonesia

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ABSTRACT

PT XL Axiata Tbk is one of the largest telecommunications companies in Indonesia which provides cellular services for both retail and business. In 2021, the Ministry of Communication and Information announced that the telecommunications operator PT XL Axiata Tbk was eligible to commercialize 5G services in Indonesia. This research analyzed financial ratios to evaluate the financial performances of PT XL Axiata Tbk for the years 2019-2023 Before and After the Implementation of the 5G Network in Indonesia. Profitability ratios, which include Net Profit Margin, Return on Assets, and Return on Equity, are analyzed to present a comprehensive view of the financial performance of PT XL Axiata Tbk. The data used is secondary data to calculate the profitability ratio of PT XL Axiata Tbk. This research found that the profitability ratio of PT. XL Axiata Tbk increased after implementing the 5G network in 2021. NPM in 2021 was 4.8%, increased from 1.4% in 2020. In 2022, NPM was 3.8%, and in 2023 was 4.0%. ROE in 2021 was 6.6%, increased from 1.9% in 2020. In 2022 and 2023, ROE was 4.9%. ROA in 2021 was 1.8%, increased from 0.6% in 2020. In 2022, ROA was 1.4%, and 1.5% in 2023. Even though the profitability ratio in 2022 & 2023 was lower than in 2021, the value was still better than before the implementation of the 5G network. The findings of the research can give recommendations for managers to increase profitability ratio by expanding the 5G network area as well as implementing cost efficiency through collaborating with third parties in preparing 5G infrastructure.

Keywords: Financial Ratios, Profitability ratio, Net Profit Margin (NPM), Return on Asset (ROA), Return on Equity (ROE).

1. INTRODUCTION

Internet use in Indonesia has been growing in the last five (five) years from 2018 to 2022. According to Sutarsih and Maharani (2023), 66.48% of the Indonesian population had access to the internet in 2022, more than in 2021, which was 62.10%. The high use of the internet reflects high public acceptance of the development of information technology and its influence on internet use. The population aged 5 years and older who have accessed the internet in the last 3 months was increasing from 2018 to 2022.

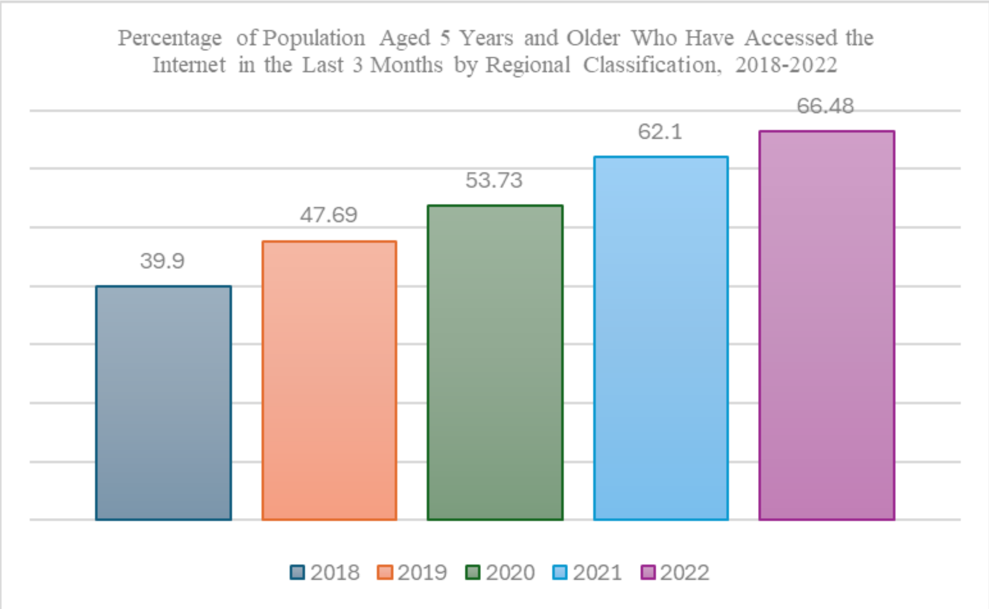

Figure-1: Percentage of Population Aged 5 Years and Older Who Have Accessed the Internet in the Last 3 Months in Indonesia, 2018-2022.
Source: Telecommunication Statistics in Indonesia years of 2022.

According to Sutarsih and Maharani (2023), 66.48% of the Indonesian population will have access to the internet in 2022, more than in 2021, which was 62.10%. The high use of the internet reflects high public acceptance of the development of information technology and its influence on internet use. In Indonesia, the increase in internet users occurred in almost all regions, with the highest percentage in DKI Jakarta Province was 84.65% in 2022, higher than in 2021 at 85.55%. This condition is an opportunity for telecommunications operating companies, including Internet Service Providers (ISP); this has been responded to by the continued growth of Internet Service Provider (ISP) companies.

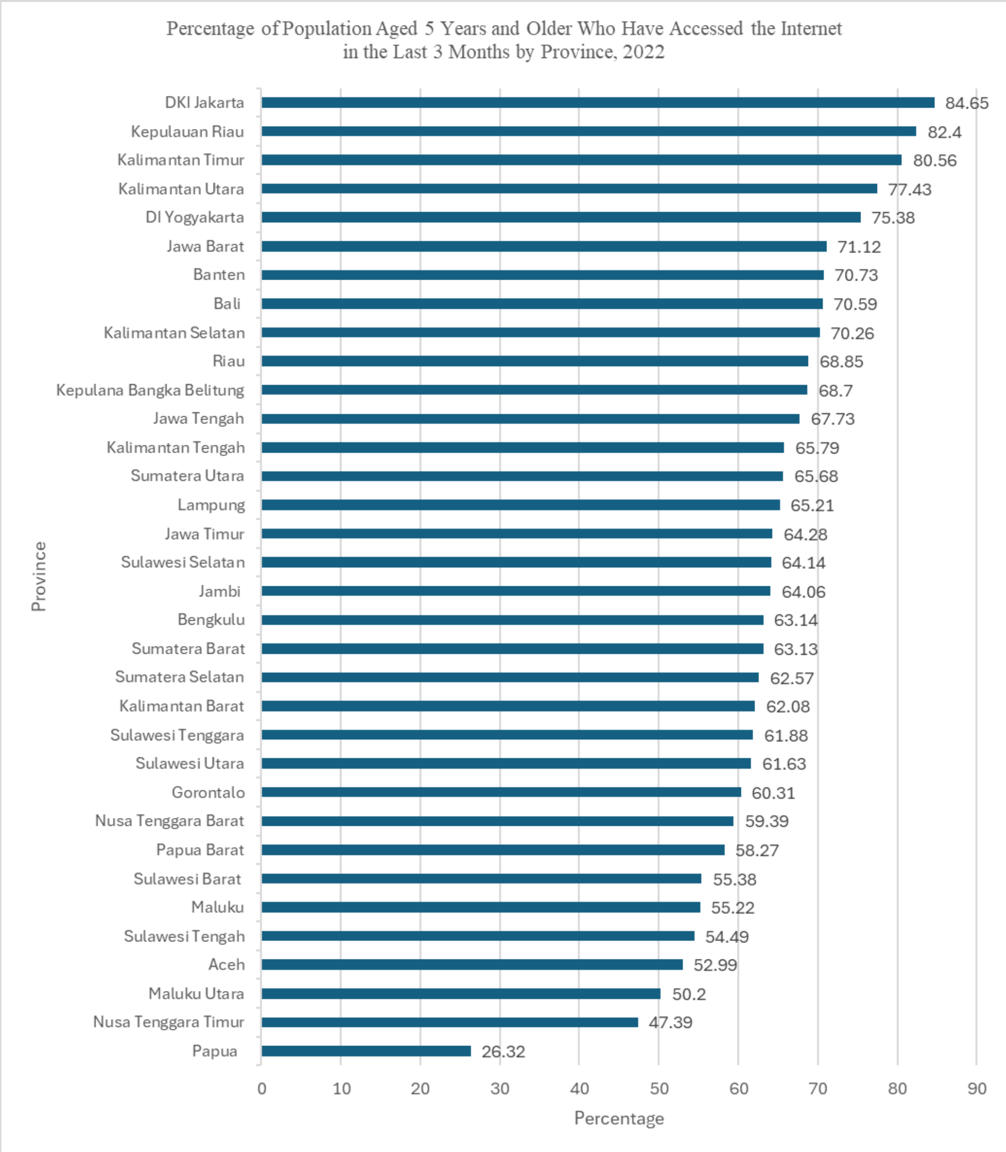

Figure-2: Percentage of Population Aged 5 Years and Older Who Have Accessed the Internet in the Last 3 Months by Province, 2022.
Source*:* Telecommunication Statistics in Indonesia years of 2022.

In 2022, Internet Service Provider (ISP) customers reached 13.20 million. ISP customers include corporate, personal, and internet cafe customers. In terms of composition, the dominant customers were individual customers at 91.95%, company customers at 8.03%, and internet cafe customers at 0.02% (Sutarsih and Maharani, 2023).

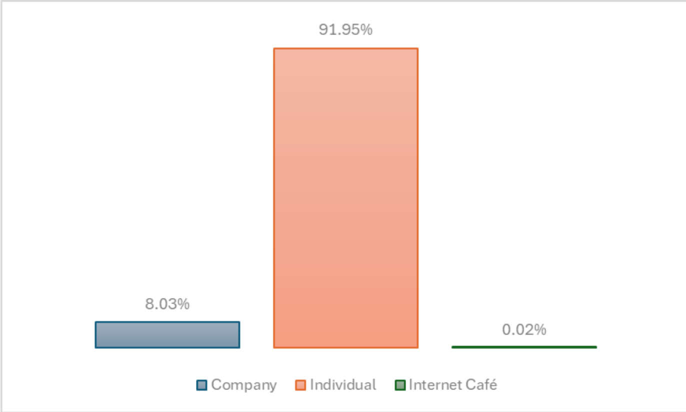

Figure-3 : Internet Service Provider (ISP) Customer Composition 2022.
Source: Telecommunication Statistics in Indonesia years of 2022.

The telecommunication landscape in Indonesia is primarily shaped by four significant entities: PT Indosat Tbk, PT XL Axiata Tbk , PT Telkom Indonesia Tbk, and PT Smartfren Tbk. As of June 30, 2023, the combined user base of these operators has reached a staggering 346.8 million. This market saturation is expected to impact the growth of the customer base and revenue, potentially leading to a slowdown. However, the increasing demand for internet services, driven by the shift from offline to online activities, is predicted to bolster internet usage and income for Internet Service Provider (ISP) companies, offering a positive outlook for the industry (Pefindo, 2023).

Minister of Communication and Information Johnny G Plate said that in 2021, the 5G network will begin operating commercially throughout Indonesia after previously carrying out twelve 5G network trials in 2017 – 2020. The 5G network will be an opportunity that supports the development of Indonesia's digital sector. Services provided using the 5G network will be faster, and the network capacity will be greater and more reliable than those offered by the 4G network (Kominfo,2021).

The 5G network can improve performance in the manufacturing sector by allowing machines to be monitored in more real-time, thereby achieving operational efficiency. Apart from that, the 5G network is also helpful in the logistics sector in speeding up the delivery of goods, reducing human error, and improving inventory management. In the health sector, 5G networks also support remote surgical innovations that require high speed and low latency with high accuracy. The benefits that can be obtained in general in the business world are increased efficiency and reduced downtime, which has an impact on reducing operational costs (Telkomsel, 2021).

PT. XL Axiata Tbk, a strategic player in the Indonesian telecommunications landscape, was established in 1989 as PT. Grahametropolitan Lestari. In 1995, it rebranded as PT. Excelcomindo Pratama, and in 2005, it was acquired by the Axiata Group Berhad, a leading multinational telecommunications company based in Malaysia. This acquisition led to the company's current name, PT. XL Axiata Tbk, solidifying its position in the industry. Looking ahead to 2023, PT. XL Axiata's ownership structure remains stable and safe. The majority of shares, 66.25%, are held by Axiata through Axiata Investments (Indonesia) Sdn. Bhd. The remaining 0.43% are treasury shares, and 33.32% are public shares. This shared composition further strengthens PT.XL Axiata's steps to continue growing and achieving sustainable success (PT. XL Axiata Annual Report , 2023).

PT. XL Axiata Tbk is a leading cellular telecommunications service provider in Indonesia, with an extensive network that covers the entire country. PT. XL Axiata Tbk serves a wide range of customers, from retail to business and corporate clients. PT. XL Axiata is at the forefront of technology, operating a network using a global system for mobile communications 900/DCS 1800, IMT-2000/3G technology. PT. XL Axiata also becomes the first telecommunications service provider in Indonesia to launch 4.5G. In addition, PT. XL Axiata holds a range of licenses, including those for Content Provision Services, Internet Access Services (ISP), Internet Interconnection Services, Internet Telephony Services for Public Purposes (VoIP), and Closed Fixed Network (Leased Line) operations. In 2021, PT XL Axiata entered into a collaboration with NTT Ltd. This collaboration aims to build a private - cloud-based IT infrastructure, which is one of the steps to preparing the 5G network ecosystem (PT. XL Axiata Annual Report, 2023).

Minister of Communication and Information Johnny G Plate, in a virtual press conference, on Thursday 12 August 2021 said that on August 6, 2021, PT XL-Axiata Tbk was eligible to commercialize 5G services in Indonesia. This was in line with the issuance of a Certificate of Operation Eligibility by the mandate of Article 4 of Minister of Communication and Information Regulation Number 5 of 2021 concerning Telecommunications Operations. PT. XL Axiata's success in obtaining a permit to provide 5G services is a strategic step for the company as the third operator in Indonesia to obtain a license after PT. Telkom Indonesia Tbk and PT. Indosat Tbk had previously received permits and implemented 5G services (Berita Satu, 2021).

The implementation of the 5G network, while offering various advantages, poses a significant challenge for Internet Service Provider (ISP) companies. This challenge lies in the preparation of infrastructure, a task that can significantly impact the company's financial performance. This paper examines how the implementation of 5G services affects the financial performance of PT. XL Axiata Tbk. A closer look at PT. XL Axiata's financial performance reveals a consistent increase in revenue from 2019-2023. However, the same cannot be said for the Net Profit Margin (NPM), Return on Assets (ROA), and Return on Equity (ROE) ratios, which did not always show an upward trend throughout the year.

Objective

This research will analyze financial ratios to evaluate the financial performance of PT. XL Axiata Tbk for the years 2019-2023 before and after the implementation of the 5G network in Indonesia. PT XL Axiata Tbk has started implementing the 5G network in 2021. The secondary data used is a reliable source for calculating the profitability ratio of PT. XL Axiata Tbk. The profitability ratio is used to assess a business's ability to generate profits relative to items such as its revenue or assets. With this ratio, the users will know how effectively the company generates profits and value for shareholders. Profitability ratios include margin ratios and return ratios. Margin ratios indicate the company's reliability in controlling costs and maximizing profits. Return ratios can indicate a company's capability to manage these investments. The ratios used in this paper are Net Profit Margin (NPM), Return on Assets (ROA), and Return on Equity (ROE). Hopefully, this research will provide a clear insight into the financial performance of PT. XL Axiata during 2019-2023.

2. LITERATURE REVIEW

A. Previous Research on Financial Ratio Analysis

Nurfadia, L.R et al (2023) conducted a financial ratio analysis to assess the economic performance of PT. XL Axiata Tbk for the period 2018-2022. Regarding profitability, the return on assets increased after 2020. However, the return on capital and net profit margin are still below industry standards, indicating the need to improve the company's effectiveness in generating profits. Putri & Hermuningsih (2023) analyzed the comparative financial performance of PT. XL Axiata Tbk with PT. Indosat Tbk. During the Covid-19 Pandemic (Period 2020 – 2021). The results indicate that PT. Indosat Tbk's overall financial performance is better. However, it's crucial to note that further research is needed to provide a more comprehensive understanding of PT. XL Axiata's financial performance, particularly after the company obtains permission to implement the 5G network.

B. Financial Statements

As Murphy (2024) points out, financial statements are essential for understanding a company's financial health and profitability. Financial statements serve as a deep overview of a business's financial performance, aiding in informed decision-making for the present and future (Welker, 2023). The practicality of financial statements lies in their composition: the balance sheet, income statement, and statement of cash flows. These tools are a goldmine for traders, equipping them to evaluate a company's financial strength and value. The income statement provides a clear view of the inflow of new assets and the outflows required for revenue generation. Financial reports will be very useful for shareholders to obtain information on the performance of the company where they keep funds as company capital.

C. Financial Performance

According to Kenton (2023), financial performance will tell shareholders about the general well-being of a firm. Financial performance measures how well the firm can generate revenues. Investors can compare a company's financial performance with similar companies in the same industry. Financial performance shows how well a company generates profits and increases shareholders' value (Lenglet, 2024). To provide an in-depth picture of company performance, stakeholders can choose several indicators that show company performance and come from financial reports.

D. Financial Ratio

According to Datarails (2023), financial ratios provide essential insight into a company's performance, profitability, and financial health. The data used to calculate these ratios is derived from the company's financial reports, which include the balance sheet,

income statement, and cash flow statement. These reports are meticulously prepared and audited, ensuring the accuracy and reliability of the information used in the analysis.
These ratios help evaluate how the company generates profits using operating expenses and assets in each period.

E. Profitability Ratio

The profitability ratio is a ratio to assess a company's ability to make a profit (Kasmir, 2018). With this ratio, the level of effectiveness of company management can be analyzed as indicated by profits obtained from sales or revenue and investment income. The profitability ratio is a proportion used to measure a company's ability to make a profit, its relationship with sales, assets, and income, and its capital (Sujarweni, 2017). Daryanto et. al (2020) considered profitability ratios in their study to analyze the financial health level of Indonesian mobile telecommunication device retail during digital transformation. Indah, Sri, et al (2024) used profitability ratios in their study to analyze the financial performance measurement tool at PT Telkom Indonesia (Persero) Tbk for the Period 2020-2022.

The indicators used to measure profitability according to Hanafi & Halim (2016) are:

a. Net Profit Margin (NPM)

The net profit margin ratio is also called the revenue-to-sales ratio. Net profit margin is equal to net profit divided by net sales. (Fahmi, 2016). This shows the stability of the company to generate earnings at a specific sales level. By analyzing a company's profit margins and industry norms in previous years, we can assess the operating efficiency and pricing strategy as well as the company's competitive status with other companies in the industry. According to Hanafi and Halim (2016), NPM can be calculated using the formula that compares net profit after taxes to sales :

Formula -1 : Net Profit Margin Formula

$$Net\ Profit\ Margin = \frac{Net\ profit\ after\ taxes}{Sales} \times 100\%$$

b. Return on Assets (ROA)

According to Hanafi and Halim (2016), one of the important financial ratios for a company is the return on assets which can be used to assess a company's ability to create net profits based on a certain amount of assets. According to Horne and Wachowicz (2016), a company's effectiveness in using assets to generate profit can be measured using the return on assets ratio. The way to calculate ROA is to divide net profit after tax by total assets. According to Hanafi and Halim (2016), the ROA formula can be calculated using the formula that compares net income to total assets.

Formula -2 : Return on Assets Formula

$$Return\ on\ Assets = \frac{Net\ Income}{Total\ Assets} \times 100\%$$

c. Return on Equity (ROE)

The company's ability to use capital to create profits is also an important indicator. The company's ability to generate profits based on a certain share capital can be calculated by the return on equity ratio. ROE is used to measure how much profit the company generates compared to the capital paid in by shareholders (Agustina et al, 2021). According to Hanafi and Halim (2016), ROE can be calculated using the formula that compares net income to shareholders' equity.

Formula -3 : Return on Equity

$$Return\ on\ Equity = \frac{Net\ Income}{Shareholders\ Equity} \times 100\%$$

3. RESEARCH METHOD

This research uses a comprehensive descriptive quantitative research design to analyze the financial performance of PT. XL Axiata Tbk during the period 2019 to 2023, both before and after the Implementation of the 5G Network in Indonesia. This research's population is PT. XL Axiata Tbk a telecommunications company in Indonesia which has implemented a 5G network, and the author uses PT. XL Axiata Tbk's financial report as the sample for the period of 2019 to 2023. The research instrument used in this research is financial ratio analysis which is obtained through the process of calculating and interpreting financial ratios sourced from financial report data. The ratio chosen is the profitability ratio, which includes net profit margin, return on assets, and return on equity. By using this research method, it is hoped that the research can provide a deeper understanding of PT XL Axiata Tbk's financial performance during the period 2019 to 2023, both before and after the implementation of the 5G network in Indonesia.

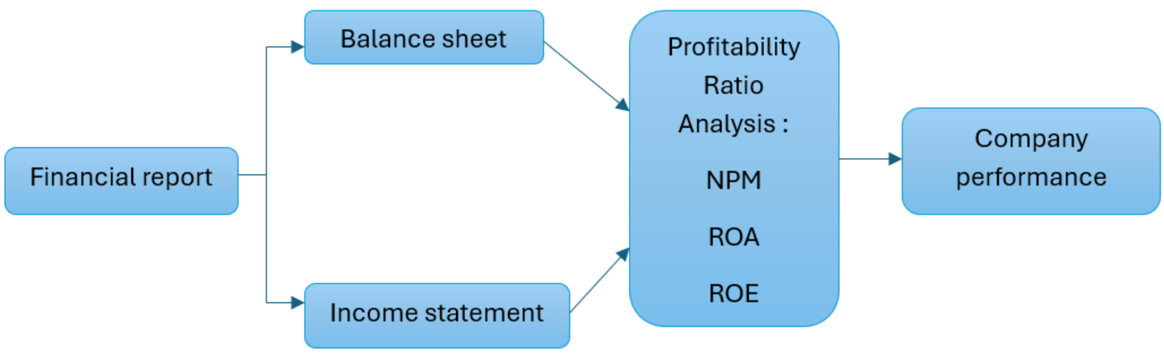

Figure-4 : Conceptual Framework

4. RESULT AND DISCUSSION

Profitability Ratio

The calculation of profitability ratios shows the Net Profit Margin (NPM), Return on Equity (ROE), and Return on Assets (ROA) figures for PT XL Axiata before the implementation of the 5G network in 2019 and 2020, and after the implementation of the 5G network in 2021, 2022 and 2023.

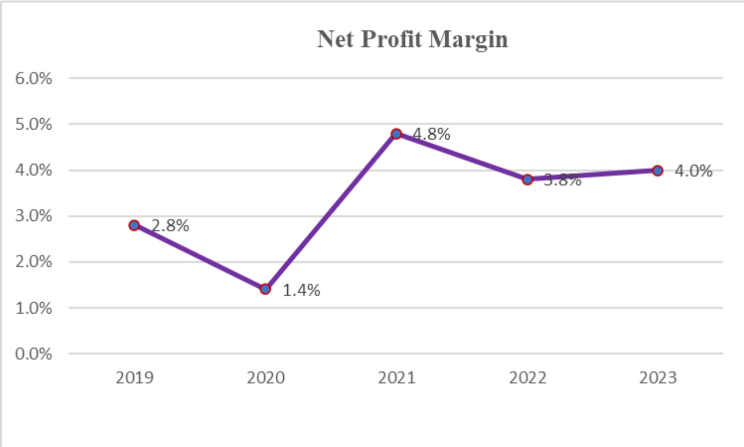

Figure-5 : Net Profit Margin of PT. XL Axiata Tbk from 2019 - 2023

Based on Figure -5, before the implementation of the 5G network in 2019, PT. XL Axiata Tbk's net profit margin was 2.8%, meaning that every IDR1 of sales generated a net profit of IDR0.028. In 2020 it was 1.4%, meaning that every IDR1 of sales produced a net profit of IDR0.014. After the implementation of the 5G network in 2021 it was 4.8%, meaning that every IDR1 of sales generated a net profit of IDR 0.048. In 2022 it was 3.8%, meaning that every IDR1 of sales produced a net profit of IDR0.038. In 2023 it was 4.0%, meaning that every IDR1 of sales produced a net profit of IDR0.040.

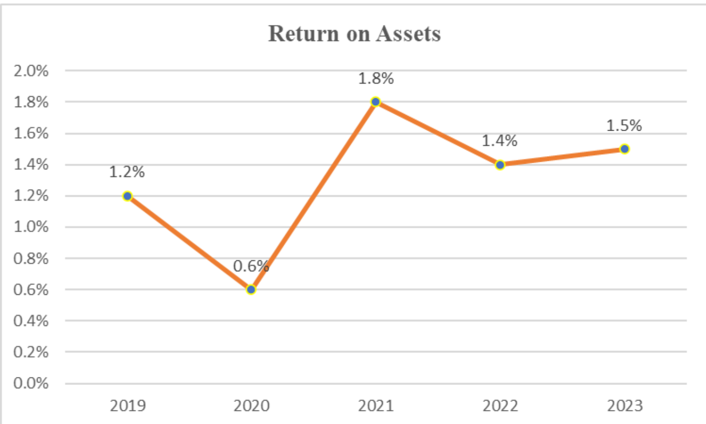

Figure-6 : Return on Assets of PT. XL Axiata Tbk from 2019 - 2023

Based on figure -6, before the implementation of the 5G network in 2019, the return on assets of PT. XL Axiata Tbk was 1.2%, meaning that every IDR1 of assets contributed to creating a profit of IDR 0.012. In 2020 it was 0.6%, meaning that every IDR1 of assets contributed to creating a profit of IDR0.060. After the implementation of the 5G network in 2021, the rate was 1.8%, meaning that every IDR1 of assets contributed to creating a profit of

IDR 0.018. In 2022 it was 1.4%, meaning that every IDR1 of assets contributed to creating a profit of IDR0.014. In 2023 it was 1.5%, meaning that every IDR1 of assets contributed to creating a profit of IDR 0.015.

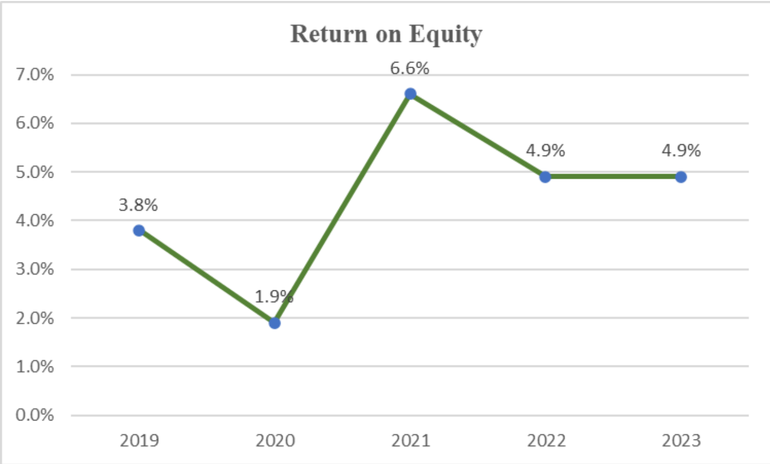

Figure -7 : Return on Equity of PT. XL Axiata Tbk from 2019 - 2023

Based on Figure -7, before the implementation of the 5G network in 2019, PT. XL Axiata Tbk's return on equity was 3.8%, meaning that every IDR1 invested capital generated a profit of IDR0.038. In 2020, it was 1.9%, meaning that every IDR1 invested capital generated a profit of IDR 0.019. After the implementation of the 5G network in 2021 it was 6.6%, meaning that every IDR1 invested capital generated a profit of IDR0.066. In 2022 it was 4.9%, meaning that every IDR1 invested capital generated a profit of IDR0.049. In 2023 it was 4.9%, meaning that every IDR1 invested capital generated a profit of IDR0.049.

Table -1 : Fınancıal Ratio using the Profitability Ratio

		Net Profit Margin (NPM)	**Return on Equity (ROE)**	**Return On Assets (ROA)**
Before 5G Network Implementation	2019	2.8%	3.8%	1.2%
	2020	1.4%	1.9%	0.6%
After 5G Network Implementation	2021	4.8%	6.6%	1.8%
	2022	3.8%	4.9%	1.4%
	2023	4.0%	4.9%	1.5%
	Average	3.4%	4.4%	1.3%

Source: PT. XL Axiata Annual Financial Report, 2019 – 2023

Table -2 : PT. XL Axiata Financial Highlight, 2019-2023 (in billions)

	After 5G Network Implementation			Before 5G Network Implementation	
	2023	**2022**	**2021**	**2020**	**2019**
Gross Operating Income	32,336	29,172	26,766	26,018	25,150

Operating Expenses	16,438	14,907	13,467	12,949	15,166
EBITDA	15,885	14,235	13,287	13,060	9,966
EBIT	4,380	3,658	3,331	605	2,603
Profit/Loss Before Income Tax	1,705	1,353	1,708	146	1,144
Net profit for the year	1,284	1,121	1,288	372	713
Other Comprehensive Income	(4)	50	16	(26)	13
Total Comprehensive Profit	1,280	1,172	1,304	345	726
Net Profit per Share	98	105	121	35	67
Total Current Assets	7,173	10,408	7,733	7,571	7,146
Fixed Assets, after deducting Accumulated Depreciation	63,890	60,474	51,912	47,162	42,082
Total assets	87,688	87,278	72,753	67,745	62,725
Total Short-Term Liabilities	20,142	26,351	20,954	18,857	21,293
Total of Long-Term Liabilities	41,041	35,153	31,711	29,750	22,311
Total Liabilities	61,183	61,504	52,665	48,607	43,603
Total Equity	26,505	25,774	20,089	19,137	19,122

Source: PT. XL Axiata Annual Financial Report, 2019 – 2023

Based on table -1, in 2021 when PT. XL Axiata Tbk was starting to implement the 5G network, the three ratios Net Profit Margin (NPM), Return on Equity (ROE) and Return on Assets (ROA) increased compared to the previous year but in the following year they decreased in 2022 and increased again in 2023 but it was not significant, as for Return on Equity (ROE), the value is the same in 2022 and 2023.

Net profit margin PT. XL Axiata Tbk increased in 2021 after implementing the 5G network. Financial performance provided an increase in income in line with the expansion of network services that internet users can use. PT. XL Axiata also managed its costs so that net profits could be maintained and impact increasing net profit margin. In 2022, the net profit margin decreased, and in 2023 did not increase significantly due to the slowing growth of internet users, but this is still an opportunity for PT. XL Axiata to expand its internet use by developing the 5G network in the wider Indonesian region.

Return on Assets PT. XL Axiata Tbk increased in 2021 after implementing the 5G network. The increase in total assets is offset by an increase in net profits, which means that every asset used, including to implementation of the 5G network, contributes to increasing the company net profits. Based on table -2, when total assets increased in 2022 and 2023, it was still unable to maximize the company's net profits, as reflected in the return on assets in 2022, which was lower than in 2021 and increased in 2022 but not significantly. This was because the growth of internet users was slowing, and this had an impact on gross operating income growth that did not exceed 15%. Based on table -2, the operating expense in 2022 also increased by 11% when the gross operating income only increased by 9%. If it was not accompanied by cost management optimally, the optimal profit figure could not be achieved. It will affect the value of the return on assets.

PT. XL Axiata Tbk's return on equity showed a positive trend in 2021 from the previous year, a direct result of the successful implementation of the 5G network. This was in line with the increase in net profits and equity (Table -2). However, despite the continued increase in equity in 2022 and 2023, the company faced a challenge in increasing return on equity. This was primarily due to the relatively small increase in net profits in 2022 compared to the increase in company equity. As a result, PT. XL Axiata Tbk struggled to increase its ROA and ROE in 2023.

From table-2, gross operating income increased from 2019 to 2023. Net profit increase in 2021, it is estimated that in the previous year, there were quite significant cost charges. In 2021, cost management was carried out optimally so that profits increased, although in 2022 and 2023 there was no significant increase.

5. CONCLUSION AND RECOMMENDATIONS

CONCLUSION

Based on the calculation results obtained, it was concluded that the profitability ratio of PT. XL Axiata Tbk increased after implementing the 5G network in 2021. NPM in 2021 was 4.8%, increased from 1.4% in 2020. In 2022, NPM was 3.8%, and in 2023 was 4.0%. Even though there was a decrease from 2021, the value was better than before the implementation of the 5G network. ROE in 2021 was 6.6%, increased from 1.9% in 2020. In 2022 and 2023, ROE was 4.9% better than in 2019 and 2020. ROA in 2021 was 1.8%, increased from 0.6% in 2020. In 2022, ROA was 1.4%, and 1.5% in 2023, which is better than in 2019 and 2020 before the implementation of the 5G network. Management needs to increase revenue by expanding the 5G network area as well as implementing cost efficiency through collaborating with third parties in preparing 5G infrastructure. This strategy can increase net profit and have an impact on increasing NPM, ROA, and ROE.

RECOMMENDATIONS

To have a better income PT.XL Axiata needs to expand the use of the 5G internet network to various regions in Indonesia and not just focus on big cities like Jakarta. The expansion of internet use will influence an increase in income, so that if costs are managed optimally then profits and net profit margin will increase and can offset the increase in assets and equity, this is needed to ensure that the return on assets and return on equity figures can increase.

PT. XL Axiata can also expand its strategy in preparing 5G network infrastructure through collaboration with third parties, which will have an impact on cost efficiency and better asset management. Collaboration can be carried out with third parties, as was carried out in 2021 with the cooperation of PT. XL Axiata Tbk with NTT Ltd prepared a 5G network ecosystem by building a private cloud-based IT infrastructure. Similar cooperation can continue to be improved, especially in areas that have the potential to expand the use of 5G networks. This partnership not only helps share the burden of costs related to assets and infrastructure but can also align the operational technical needs of various sectors.

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CHAPTER 14

The Influence of Perceived Benefit, Community Involvement to Support Sustainability Achievement on Tourism Development in Cibodas Tourism Village

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ABSTRACT

Cibodas Village is a tourism village located in the Lembang sub-district, West Bandung Regency, West Java Province, Indonesia. This village has promising natural and cultural potential for tourism development. Apart from that, tourism villages also often become centers for environmental and cultural preservation, by prioritizing sustainability principles in every aspect of activities. Tourists can not only enjoy natural beauty and cultural diversity but also contribute to efforts to preserve and develop the local economy. This research aims to develop a theoretical model by analyzing Community Involvement, Perceived Benefit, and Community Capacity Building, with moderator of Crisis Readiness in the relationship between Support for Tourism Development and Sustainability Achievement in Cibodas Tourism Village.

This conceptual paper aims to analyze the moderating effect of Crisis Readiness in the novel framework, and determine the factors influence perceived benefit. Future research are needed to give insight to the Cibodas village's residence and its tourism ecosystem on what to prepare in time of crisis.

Keywords: Tourism, Covid-19, crisis readiness, sustainability achievement.

1. INTRODUCTION

Tourism has been recognized for its vast contribution to the economic diversification, profitability, and employment opportunities for a country (Ismail & Turner, 2008). According to the rating of the Travel and Tourism Competitiveness Index (TTCI) published by the World Economic Forum (WEF), Indonesia was ranked 40th (from 140 countries) in 2019 with an increasing trend (Ministry of Tourism and Creative Economy, 2019). The tourism sector also has become a leading sector in West Java, one of the province with high GDRP (Central Bureau of Statistics, 2019). As a province that relies on the tourism sector as a mainstay sector, West Java Province is also developing a tourism village to add diversification of tourist attraction, which has been more dominant favor in the West Bandung tourism area. Cibodas Village is a tourism village located in Lembang district, West Bandung Regency, that has promising natural and cultural potential for tourism development. However, the COVID-19 pandemic has significantly reduced the level of tourist visits (Department of Tourism and Culture of West Java Province, 2021).

Nientied and Shutina (2020) noted a lack of crisis or emergency management plans in the literature. It has also been seen that the lack of planning is not only at the individual operator level but also in many cases at the national and international levels (Ghaderi et al., 2012). To fill these research gaps, this study aims to examine the structural relationships with crisis readiness as a moderating variable between residents' support for tourism development and sustainable achievement, with precedent variables of community involvement, perceived benefits, and community capacity building.

2. LITERATURE REVIEW

Community-based tourism (CBT) is a tourism product in which the foremost part of the management is managed by local communities. With this, local communities and tourists will be exposed to cultural heritage, social reliability, and the natural environment. It can enhance the community's socio-economic development (Rahman et al., 2021).

According to Nyaupane et al. (2006), the literature provides many accounts of successful community-based tourism projects, nevertheless, there are some limitations in the community-based approach. Those are local communities may not have the investment capital, know-how, or infrastructure necessary to take the initiative in developing tourism, they may have cultural limitations to involvement in the planning and management of tourism, and the host community may feel that the government must plan economic development opportunities for their region and that it would not be appropriate for them to take initiative.

Social exchange theory (SET) was being an appropriate framework for explaining residents' perceptions of tourism impacts. Following an exchange theory logic, those people who benefit from tourism perceive greater economic and less social and environmental impacts from tourism than those who do not benefit (Perdue et al., 1990). Accordingly, a community is likely to support tourism if the perceived positive impacts outweigh the negative consequences (Allen et al., 1993; Gursoy & Kendall, 2006; Gursoy et al., 2010).

According to Provia et al. (2017) Community Capacity Building (CCB) is a comprehensive process that involves all dimensions of community life. It is identified as one of the ways that community development can occur since it empowers communities to gain social welfare, education, environment, local government, social and urban planning, and health that can enable it to mobilize, identify and solve problems (Fiona, 2007).

The perceived positive and negative impacts of tourism, personal benefits from tourism, power in tourism, community attachment, community involvement, knowledge of tourism, and trust in the government are all predictors of residents' support for tourism development (Lee, 2013; Nunkoo & So, 2016).

Rousaki and Alcott (2007) broadly defined crisis readiness as "the readiness to cope with the uncertainty caused by a crisis". By the essence of coping with immediate and future crises respectively, present crisis readiness (PCr) of a firm was defined as a firm's ability to manage immediate disruptive events external to a firm, while prospective crisis readiness (ProsCr) was defined as a firm's ability to anticipate and cope with prospective disruptive events external to an organization. In this study, crisis readiness was defined as the effectiveness of a firm in terms of the extent to which a firm was prepared to cope with immediate and future crisis (disorder) situations.

I develop an example of a framework to apply crisis readiness in sustainability achievement (see Figure-1). The role of crisis readiness is put as a moderator between support for tourism development and sustainability achievement, with precedent variables of community involvement, perceived benefits, and community capacity building.

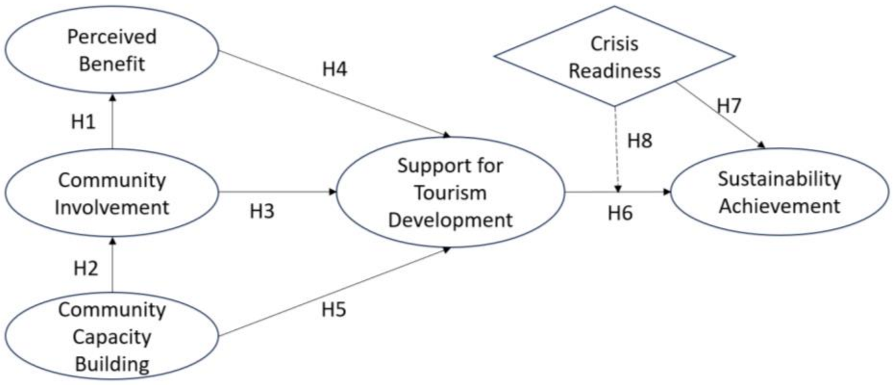

Figure 1. The Influence of Perceived Benefit, Community Involvement to Support Sustainability Achievement on Tourism Development in Cibodas Tourism Village

According to Nunkoo and Ramkissoon (2011), research on residents' attitudes toward tourism suggests that a host population is influenced by the perceived positive benefits of the industry. Mohd Noh et al., (2020) found five CCB dimensions crucial for a development in tourism were; 1) Participation, 2) Leadership, 3) Knowledge, 4) Communication, and 5) Exposure.

When local communities perceive significant economic benefits from tourism, they are more likely to support further tourism development (Gursoy and Rutherford, 2004). According to Aref et al. (2010), active involvement of local communities in tourism development can increase cultural awareness, preserve the environment, and strengthen local identity. They also emphasized that appropriate education and training are key to ensuring that communities have the necessary skills to manage and develop their tourism.

Sustainable development has been extensively discussed in tourism sectors because such development can meet the needs of tourists, provide opportunities to enhance economic growth, protect physical locations, and improve the quality of life of residents while enhancing opportunities for the future through the coexistence of tourism development and environmental quality (Eagles et al., 2002). Research by Boin et al. (2005) regarding crisis management in the public sector shows that good crisis preparedness can increase public trust and government effectiveness. In the current study, crisis readiness (CR) was proposed as the moderating variable that can influence the relationship between Support for Tourism Development and Sustainability Achievement. This proposition was also built on the view that an effectiveness measure would be more appropriate to support Sustainability Achievement, in an environment characterized as VUCA (Volatile, Uncertain, Comlpexity, and Ambiguity).

3. CONCLUSION

Based on the theory explained above, I conclude several hypotheses. Community Involvement has a positive effect on Perceived Benefit. Community Capacity Building has a positive effect on Community Involvement. Community Involvement, Perceived Benefit, and Community Capacity Building have positive effect on Support for Tourism Development among Cibodas Village's residents in West Java during the COVID-19 pandemic. Support for Tourism Development and Sustainability Achievement have a positive effect on Sustainability Achievement. And Crisis Readiness moderating the relationship between Support for Tourism Development and Sustainability Achievement among Cibodas Village's residents in West Java during the Covid-19 pandemic.

A steady stream of empirical, as well as conceptual studies, will be interesting topics for tourism development.

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CHAPTER 15

Financial Performance Analysis and Evaluation of AKR Corporindo Tbk Before and During COVID-19 Crisis in Indonesia for Years 2018-2022

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ABSTRACT

AKR Corporindo Tbk is an Indonesian industrial conglomerate primarily involved in the energy sector. Established in 1977, the company has grown to become one of Indonesia's leading providers of integrated supply chain solutions for energy, chemicals, and logistics. This study conducts a comprehensive analysis of the financial performance of AKR Corporindo Tbk, a prominent energy company in Indonesia, spanning the years 2018 to 2022, with a focus on the contrasting periods before and during the COVID-19 pandemic. Utilizing secondary data from annual reports, balance sheet, income statements and cash flow statements for periode of years from 2018 to 2022. The study employs profitability metrics such as gross profit margin, net profit margin, earning per share to assess AKR Corporindo Tbk's profitability, liquidity, solvency, and operational efficiency across the two distinct time frames. The research findings suggest that the COVID-19 pandemic had had a significant impact on AKR Corporindo Tbk's financial performance, particularly on its liquidity and profitability ratios. The study concludes with recommendations for the company to improve its financial performance and navigate the challenges posed by the pandemic.
Keywords: AKR Corporindo Tbk, Financial Ratio, Profitability Analysis, COVID-19 Crisis.

1. INTRODUCTION

AKR Corporindo Tbk is Indonesia's leading bulk supply chain and logistics company and developer of Indonesia's largest integrated industrial and port estate supplying basic chemicals, energy, and logistics to Indonesian industries through investments in critical infrastructure across the archipelago. AKR Corporindo is currently investing in Gas infrastructure to serve the needs of its customers. AKR Corporindo has delivered sustainable returns to its shareholders and on track to serve Indonesian industries for decades to come. Currently, AKR Corporindo Tbk is known as a company that continuously generating innovation and developing its business segment in the energy supply chain network in Indonesia, in order to further support the national industry development .

The COVID-19 Pandemic in 2020 is one of the most dangerous phenomena in the world in the last century. The COVID-19 Pandemic has not only caused health problems, but has also caused social impacts such as public panic, confidence crisis, and the most severe impact is a slowdown in national economic growth. The Covid-19 pandemic has brought companies into uncertain conditions in achieving their business goals, both long-term goals and shortterm goals as to maximize profit receipts, and increase the value of the company

During Covid 19, AKR Corporindo was slightly declined in Revenue in 2020, as show in Figure 1, but further years was able to maintain strong operational and financial performance in 2020, despite challenges posed by Covid 19

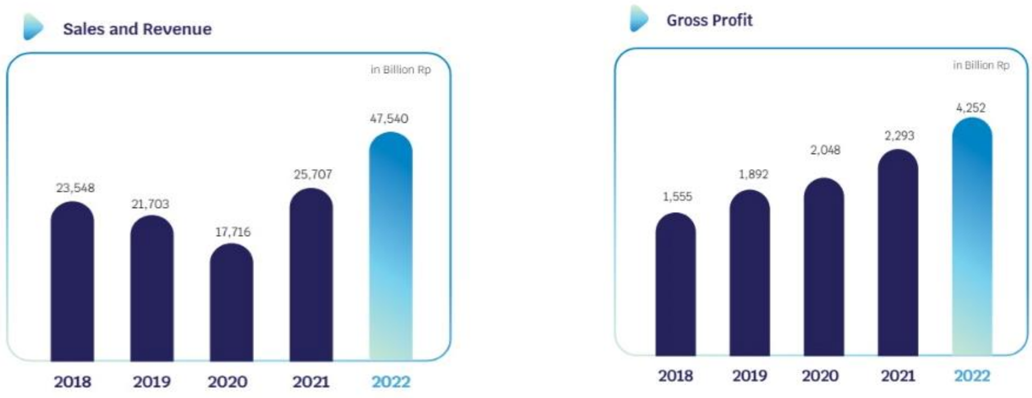


Figure.1. Financial highlight of AKR Corporindo in Sales Revenue, Gross Profit for years 2018-2022
(Source : AKR Corporindo Financial Highlight in Annual Report, 2018-2022)

This study is to analysis the financial performance of AKR Corporindo Tbk before and during and after Covid 19 pandemic, as to advise to all stakeholders with financial performance ratio indicators for further strategic decisions to achieve sustainability growth in the future.

2. LITERATURE REVIEW

2.1. AKR Corporindo Tbk

AKR Corporindo Tbk, was founded as a small chemical trading busines in Surabaya, and it has now grown to become one of Indonesia's leading private sector distributors of basic chemicals, petroleum, logistics, and supply chain solutions. Mr.

Soegiarto Adikoesoemo, entrepreneur and businessman from Surabaya, started this business in 1960 and later established PT Aneka Kimia Raya on November 28, 1977. The company moved its headquarters to Jakarta in 1985.

In 1994, AKR Corporindo was officially become public listed company on Indonesian Stock Exchange (previously Jakarta Stock Exchange). This chance was used to further develop the company's infrastructure and to build new storage terminals, as well as other assets in Java and Sumatra.

In the first decade of this millennium, AKR expanded its business area to the distribution of petroleum products by expanding the existing infrastructure. As its business portfolio grew, AKR starts focusing also on energy, logistics, and manufacturing businesses. The company's name was later changed from PT Aneka Kimia Raya Tbk to PT AKR Corporindo Tbk, reflecting a larger business scope and opportunities.

In 2005, AKR Corporindo Tbk became the first national private company to distribute non- subsidized fuel. Taking benefit from its experience and extensive infrastructure, the company became the first national private company entrusted by the Downstream Oil and Gas Regulator (BPH Migas) to distribute subsidized petroleum since 2010. AKR Corporindo Tbk continued expanding its network and now has storage tanks and terminals in 15 major sea ports and river ports throughout Indonesia. AKR also owns a fleet of self-propelled oil barges, petroleum, and chemical trucks delivering petroleum and basic chemicals to over 2,000 industrial companies across Indonesia.

In 2017, for subsidized fuel, AKR was reappointed to distribute subsidized petroleum for motor vehicles and fisheries. AKR Corporindo Tbk currently operates more than 130 AKR brand petrol stations selling high quality diesel and gasoline to riders and fishermen in Java, Sumatra, Kalimantan and Sulawesi.

In 2011, AKR Corporindo Tbk along with its joint venture partner, Royal Vopak, commissioned the largest independent petroleum storage terminal, PT Jakarta Tank Terminal (JTT) in Tanjung Priok Port. JTT provides modern and efficient terminal facilities for International oil majors and Indonesian corporates alike.

AKR Corporindo Tbk is also invest in technology to provide efficient supply chain solutions and control across all of its operations throughout Indonesia. It has introduced innovative technology system to monitor and control cargo movements, inventory and distribution of industrial, as well as subsidized petroleum. The use of innovative technology solution brings considerable cost savings and efficiency to our customers, while also assisting BPH Migas in supervising and controlling the distribution of subsidized petroleum, thus preventing any misuses.

AKR Corporindo Tbk supplies basic chemicals and represents world class chemical producers, such as Asahimas Chemicals (part of Asahi Glass, Japan), Solvay Europe and USA, and it is well known as supplier of choice for many companies in rayon, textiles, consumer goods, alumina, chemical, as well as soap and detergent industries.

In petroleum segment, AKR Corporindo Tbk supplies petroleum products from oil global distributor to mining and plantation industries, power utilities, industrial and commercial establishments, as well as to retail sector through its petrol stations. Some of AKR Corporindo's subsidiaries, PT AKR Sea Transport Indonesia, operates in sea logistics for fuel services distribution, while PT AKR Transportasi Indonesia operates more than 300 transportation fleet.

AKR Corporindo Tbk is also developing an integrated industrial and port area called Java Integrated Industrial and Ports Estate (JIIPE) located in Gresik, East Java since 2013. The project has been developed through the company’s subsidiary, PT Usaha Era Pratama Nusantara, in cooperation with PT Berlian Jasa Terminal Indonesia, a subsidiary of PT Pelabuhan Indonesia III (Pelindo III). JIIPE were developed as an integrated industrial area with a deep-water port that will generate significant added value for the company. In mid-2021, JIIPE has obtained the status of a Special Economic Zone for the Technology and Manufacturing sector. Under the name KEK JIIPE Gresik, this area has become one of the national strategic projects aimed to reduce logistics cost, encouraging the national industry competitiveness, and attracting investment.

Since 2017, the company also expands its business to retail and aviation fuel by a joint venture with BP Global. In retail business, both parties have developed a company called PT Aneka Petroindo Raya, operating under the name “BP AKR Fuels Retail”. They intend to develop and offer a different experience to consumers by leveraging the capabilities and expertise of BP and AKR Corporindo Tbk in the emerging retail market in Indonesia. In aviation fuel business, another joint venture company, PT Dirgantara PetroIndo Raya, operates under the name of Air BP-AKR Aviation has goal to develop an aviation fuel business in Indonesia.

In the 3rd quarter of 2021, AKR Corporindo Tbk also began exploring the distribution of cleaner and renewable energy by establishing JV with PT Bayu Buana Gemilang (BBG) to form a JV company PT Berkah Buana Energi (BBE). This collaboration is aimed at building natural gas distribution network to the SEZ JIIPE Gresik and its surroundings.

2.2. Financial Statement

Financial statements are often measured and associated with the company's progress because they can be measured and compared using cross-sections or time series. With these two things, the managers can make accurate decisions, both short- and long-term (Keuangan, 2018). A related financial statement element is the calculation of financial position, namely assets, liabilities, and capital. Also, another influencing factor is in in the financial statements performance, namely the company's income and expenses which are contained the income statement. The presentation of quantitative financial statement information about the company's financial condition should be stated in one period (Naufal, 2014). The numbers found on a company’s financial statements. The complete financial statements consisting of financial position statement or balance sheet as at the end of the period, an income statement, an equity changes statement, and cash flows statement for the period (Hughes & Fisher, 2014) are used to perform quantitative analysis and assess a company’s liquidity, leverage, growth, margins, profitability, rates of return, valuation, and more.

2.3. Financial Ratio Analysis

Financial ratios analysis is useful for estimating the company's economic problems, the result of financial processes, current, and future financial conditions, and can serve as a reference for investors about current or future financial performance (Naufal, 2014).

Financial ratios are quantitative measures that are used to assess businesses. These ratios are used by financial analysts, equity research analysts, investors, and asset managers to evaluate the overall financial health of businesses, with the end goal of making better investment decisions. Financial ratios analysis are also heavily used by financial managers and C-suite officers to get a better understanding of how their businesses are performing. Financial ratios are created with the use of numerical values taken from financial statements to gain meaningful information about a company. Another advantage of ratio analysis is for judging the company's efficiency in terms of its operations and management, locating weakness of the company's operations, help a company to formulate future plans for establishing future trends of its financial performance (Kaur, 2016).

Financial ratio analysis serves two main purposes:

1. Track company performance

Determining individual financial ratios per period and tracking the change in their values over time is done to spot trends that may be developing in a company. For example, an increasing debt-to-asset ratio may indicate that a company is overburdened with debt and may eventually be facing default risk.

2. Make comparative judgments regarding company performance

Comparing financial ratios with that of major competitors is done to identify whether a company is performing better or worse than the industry average. For example, comparing the return on assets between companies helps an analyst or investor to determine which company is making the most efficient use of its assets.

Financial ratios are grouped into the following categories:

- Liquidity ratios
- Leverage ratios
- Efficiency ratios
- Profitability ratios

2.3.1. Liquidity Ratio

Liquidity ratios are financial ratios that measure a company's ability to repay both short- and long-term obligations.

Common liquidity ratios include the following:

- Current Ratio

  Measures a company's ability to pay off short-term liabilities with current assets:

  Current ratio = Current assets / Current liabilities

- Quick Ratio

  Measures a company's ability to pay off short-term liabilities with quick assets :

  Quick ratio = Current assets – Inventories / Current liabilities

2.3.2. Leverage Financial Ratios

Leverage ratios measure the amount of capital that comes from debt. In other words, leverage financial ratios are used to evaluate a company's debt levels.

Common leverage ratios include the following:

- Debt Ratio

  Measures the relative amount of a company's assets that are provided from debt:

  Debt ratio = Total liabilities / Total assets

- Debt to Equity Ratio

  Calculates the weight of total debt and financial liabilities against shareholders' equity:

  Debt to equity ratio = Total liabilities / Shareholder's equity

- Interest Coverage Ratio

  Shows the capability of a company to pay its interest expenses:

  Interest coverage ratio = Operating income / Interest expenses

2.3.3. Efficiency Ratios

Efficiency ratios, also known as activity financial ratios, are used to measure how well a company is utilizing its assets and resources.

Common efficiency ratios include:

- Asset Turnover Ratio

  Measures a company's ability to generate sales from assets:

  Asset turnover ratio = Net sales / Average total assets

- Invetory Turnover Ratio

  Measures how many times a company's inventory is sold and replaced over a given period:

  Inventory turnover ratio = Cost of goods sold / Average inventory

- Accounts Receivable Turnover Ratio

  Measures how many times a company can turn receivables into cash over a given period:

  Receivables turnover ratio = Net credit sales / Average accounts receivable

- Days Sales in Inventory Ratio

  Measures the average number of days that a company holds on to inventory before selling it to customers :

  Days sales in inventory ratio = 365 days / Inventory turnover ratio

2.3.4. Profitability Ratios

Profitablity ratios measure a company's ability to generate income relative to revenue, balance sheet assets, operating costs, and equity.

Common profitability financial ratios include the following:

- Gross Margin Ratio

  Compares the gross profit of a company to its net sales to show how much profit a company makes after paying its cost of goods sold:

  Gross margin ratio = Gross profit / Net sales

- Operating Margin Ratio

  Sometimes known as the return on sales ratio, compares the operating income of a company to its net sales to determine operating efficiency:

  Operating margin ratio = Operating income / Net sales

- Gross Margin ratio

  Financial metric that measures the profitability of a company's core business activities

  Gross Margin ratio = (Revenue – Cost of Good Sold) x 100%

- Earnings per share ratio

  Measures the amount of net income earned for each share outstanding:

  Earnings per share ratio = (Net earnings / Total shares outstanding) x 100%

2.3.5. Overall Performance Ratios

Market value ratios are used to evaluate the share price of a company's stock. Common market value ratios include the following:

- Return on Asset Ratio

  Measures how efficiently a company is using its assets to generate profit:

  Return on assets ratio = (Net income / Total assets) x 100%

- Return on Equity Ratio

  Measures how efficiently a company is using its equity to generate profit:

  Return on equity ratio = (Net income / Shareholder's equity) x 100%

- Price-to-Earnings (P/E) ratio is a widely used financial metric that helps investors assess the valuation of a company's stock. It is calculated by dividing the current market price of the stock by its earnings per share (EPS)

  P/E ratio=Market price per share / Earnings per Share (EPS)

- Return on Invested Capital (ROIC) ratio

  It is a financial metric used to evaluate the efficiency with which a company generates profits from its capital investments

3. RESEARCH METHOD

The approach methode of this of research used in this study is the four ratios in Financial Ratios Analysis as described in literature review as Liquidity Ratio, Profitability Ratio, Activity Ratio, and Solvency Ratio. The data used in this study is data sourced from secondary data that obtained from company annual reports through the official IDX website for years of 2018-2022. The secondary data is converted to financial ratios which will be reviewed and used as valuable indicators to deliver insight for investors, stakeholders for strategic business decision of PT AKR Corporindo Tbk.

4. RESULT AND DISCUSSION

This section summarize the four financial ratios of PT. AKR Corporindo Tbk.

4.1. Liquidity Ratio

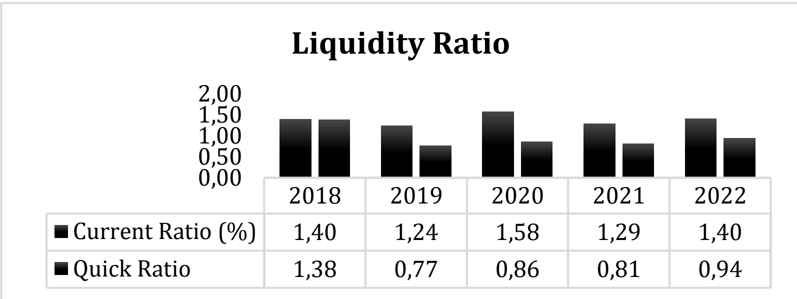


Figure 2. AKR Corporindo Tbk`s Liquidity Ratio 2018-2022

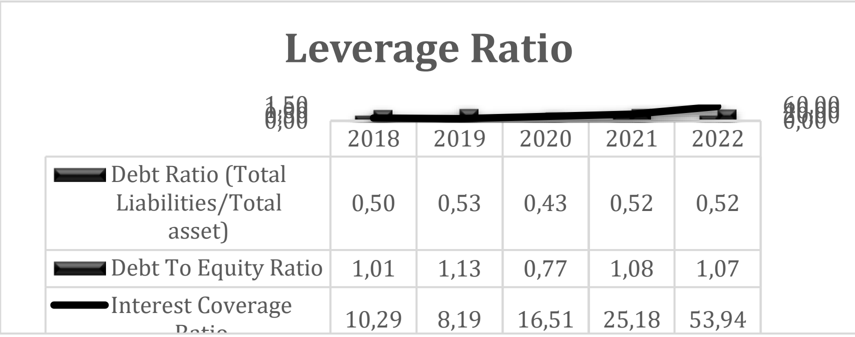
(Source: Author’s data processing from AKR Corporindo Tbk’s Annual Report, 2018-2022)

The current ratio shown in graph in average above 1 indicates that the company's current assets such as cash, accounts receivable, and inventory are sufficient to cover its current liabilities due within the next year. Even during Covid 19 in 2020, the company still performed current ratio above 1. This indicates the company’s basic level of liquidity still meet its short-term obligations.

A quick ratio shown are less than 1 indicates that the company may have difficulty meeting its short-term obligations without relying on selling inventory. This can be a concern because inventory may not be easily convertible into cash in a short period.The Covid 19 pandemic impacts in this company is shown by the declining quick ratio in 2020, but it starting to recover by increasing in the next two years. It indicates the company need for closer scrutiny of the company's liquidity management and inventory practice

Over all Liquidity Ration Above 1 indicates that current assets exceed current liabilities. The higher the ratio, the more liquid the company is considered. A ratio significantly above 1 suggests that the company is in a strong position to meet its short-term obligations comfortably.

4.2. Leverage Ratios



	2018	2019	2020	2021	2022
Debt Ratio (Total Liabilities/Total asset)	0,50	0,53	0,43	0,52	0,52
Debt To Equity Ratio	1,01	1,13	0,77	1,08	1,07
Interest Coverage Ratio	10,29	8,19	16,51	25,18	53,94

Figure 3. AKR Corporindo Tbk`s Leverage Ratio 2018-2022
(Source: Author's data processing from AKR Corporindo Tbk's Annual Report, 2018-2022)

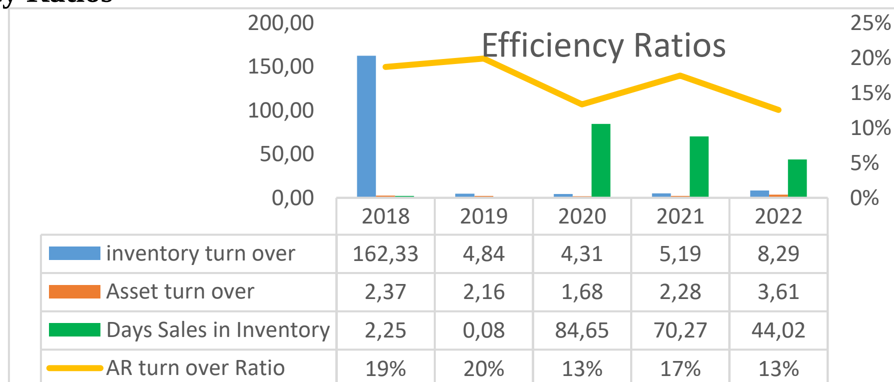
The debt to equity ratio in average above 1 indicates that the company relies more on debt financing, which can potentially magnify returns, it also increases financial risk and requires careful management of debt levels and cash. Companies must manage this ratio carefully to maintain financial stability, support growth initiatives, and meet financial obligations effectively. Balancing debt levels with equity funding is essential for long-term sustainability and resilience in varying economic conditions.

But on the other hand, the debt ratio shown is below 1, it means that total debt is less than total assets. In other words, the company's assets are sufficient to cover its debts, and it may even have more assets than debt. and indicates that the company has a conservative approach to financing, with assets significantly outweighing its debt obligations. This enhances financial stability, investor confidence, and overall flexibility in managing its financial resources.

And the interest coverage ratio above 1, by the periode of before Covid 19 pandemic, during pandemic and after pandemic, the trendline is increasing. This indicates that the company has sufficient profitability to comfortably meet its interest obligations, which enhances financial stability, investor confidence, and access to capital.

In overall, the leverage ratio of the company is considered sufficient in term of financial perspective

4.3. Efficiency Ratios



	2018	2019	2020	2021	2022
inventory turn over	162,33	4,84	4,31	5,19	8,29
Asset turn over	2,37	2,16	1,68	2,28	3,61
Days Sales in Inventory	2,25	0,08	84,65	70,27	44,02
AR turn over Ratio	19%	20%	13%	17%	13%

Figure 4. AKR Corporindo Tbk`s Efficiency Ratio 2018-2022
(Source: Author's data processing from AKR Corporindo Tbk's Annual Report, 2018-2022)

The inventory turnover ratio is declining significantly in 2019, it indicates that a company is selling its inventory less frequently or efficiently compared to previous periods. But it started to grow in following years event in pandemic periode .

The asset turn over trendline is shown in relative stable, before and during the covid 19 pandemic

For the periode before covid19 pandemic, the days sales in inventory is low, but during the pandemic it increased significantly, showing the impact of sales performance due to Covid19 pandemic. But the trendline showed decreasing positively the next following years after the pandemic

Accounts Receivable (AR) turnover ratio is declining, specifically in Covid19 pandemic in 2020, it indicates that a company is taking longer to collect payments from its customers. Implement effective accounts receivable management practices, such as regular follow-ups on overdue accounts, early payment discounts, or using collection agencies if necessary.

4.4. Profitability Ratios

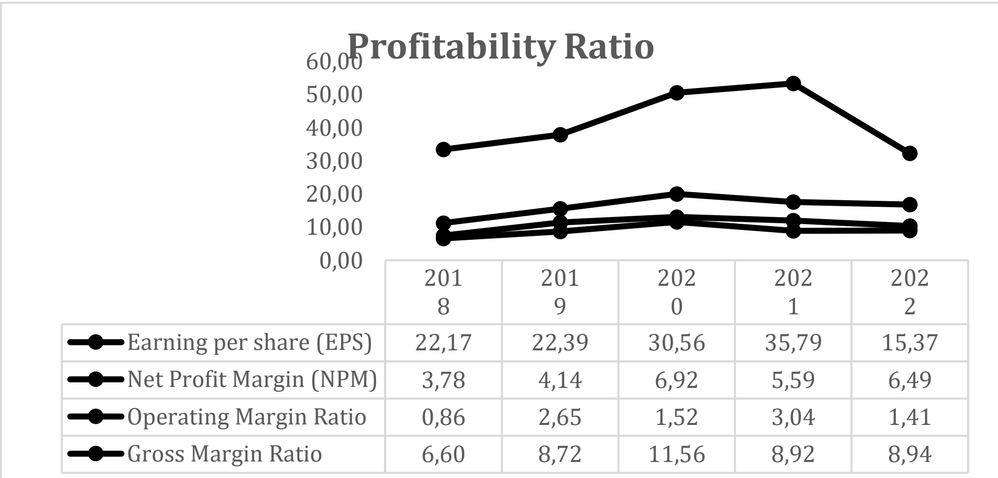


Figure 5. AKR Corporindo Tbk`s Profitability Ratio 2018-2022
(Source: Author’s data processing from AKR Corporindo Tbk’s Annual Report, 2018-2022)

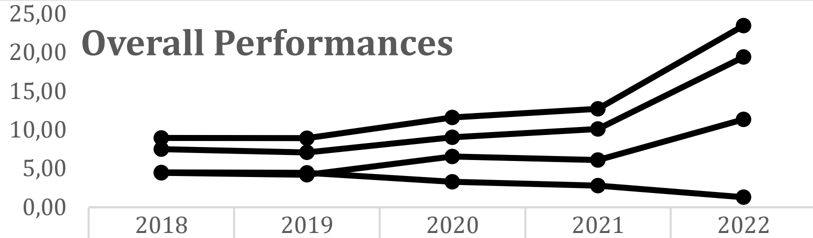
Earning profit margin shown in graph in genarally stable, even in periode Covid 19 pandemic in 2020 it was increased

The operating margin ratio is fluctuative in periode before covid 19, but it was increased in 2020, it indicates they decrease the profit generated due to the global lockdown policy.

The gross margin ratio was increased, while alongside a decreasing operating margin ratio indicates that while the company was succeed managing the challenge of increased expenses from opeartional profitability and also manage its direct production costs effectively.

And in final result, the net profit margin was increasing, even in the covid 19 pandemic in 2020. It indicates that the company effectively manage their costs during a crisis period of COVID-19 pandemy, and also quickly adapt to digital transformation trends or accelerated their e-commerce capabilities due to global lockdown situation in 2020.

4.5. Overall Performances



	2018	2019	2020	2021	2022
PE Ratio	4,51	4,47	3,27	2,79	1,30
ROA Ratio	4,46	4,20	6,57	6,11	11,35
Return in Invested Capital (ROIC)	7,49	7,08	9,03	10,12	19,40
ROE Ratio	8,97	8,93	11,62	12,72	23,46

Figure 5. AKR Corporindo Tbk`s Overall Performances 2018-2022
(Source: Author’s data processing from AKR Corporindo Tbk’s Annual Report, 2018-2022)

P/E ratios shown in graph is declining during and after Covid 19 pandemy. It indicates during the COVID-19 pandemic primarily reflects heightened uncertainty, increased risk aversion, and downward revisions in earnings expectations until certain periode of time after the Covid 19 pandemy.
The ROA ratio shows increasing trendline in periode of before Covid 19 and during Covid 19, it generally reflects the company improved efficiency and profitability it's crucial to analyze the underlying reasons specific to each company and industry.
The ROIC ratio showed the increasing trendline before and during Covid 19 pandemy. It indicates that the companies effectively managed costs during the pandemic, such as reducing overhead expenses, renegotiating contracts, or optimizing operations, which improve their profitability relative to invested capital**.**
The ROA ratio was increased during Covid 19 pandemy, and still in the growing trendline. It indicated that the companies that successfully navigated the challenges posed by the pandemic and capitalized on opportunities for growth and efficiency improvements are likely to see enhanced financial performance reflected in higher ROA metrics during and after the COVID-19 period.

5. CONCLUSION AND RECOMMENDATIONS

AKR Corporindo’s financial performance before and during the COVID-19 pandemic highlights a dynamic response to challenges and opportunities in the market. AKR Corporindo's performance during the COVID-19 pandemic was likely characterized by resilience in some areas due to its diversified business model and strategic adaptations.. During the COVID-19 pandemic, AKR Corporindo Tbk, like many companies globally, faced challenges and opportunities that influenced its financial eprformance. However, challenges such as demand fluctuations, supply chain disruptions, and regulatory changes were proactively managed with strategies to navigate effectively through the crisis. Here are some aspects that likely shaped AKR Corporindo Tbk's financial performance during the pandemic. AKR Corporindo Tbk's diversified business portfolio, which includes trading and distribution of petroleum and chemicals, as well as logistics services, provided some resilience. Diversification helped mitigate risks associated with fluctuations in specific product demand. Effective inventory management strategies would have been crucial to offset revenue declines and maintain profitability during periods of reduced demand and economic uncertainty.

AKR Corporindo Tbk performed an increase in net profit margin during the COVID-19 pandemic in 2020, reflects its ability to adapt to market conditions, capitalize on opportunities in essential sectors, and implement effective cost management strategies. financial performance. Over all, AKR Corporindo Tbk's during the Covid 19 pandemi have implemented measures to control operating expenses, optimize logistics and supply chain operations, and enhance operational efficiency to maintain its business sustainability as before and after covid 19 pandemy. Moving forward, maintaining resilience and continuing to innovate will be crucial for sustained profitability and growth in the evolving business landscape in the future.

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Prof. Dr. Wiwiek Mardawiyah Daryanto, SE-Ak, MM, CMA is an expert in accounting and finance fields. In 1981, she graduated with cum-laude from the **University of Gadjah Mada (UGM)**. Under a scholarship program from the World Bank, she pursued a Master of Management (MM) degree from the **University of the Philippines (UP)** at Los Banos. She earned a Doctoral degree from **Institut Pertanian Bogor (IPB)** majoring in Management. She became a **Certified Management Accountant** (CMA) in 2000 from the Institute of Certified Management Accountant (ICMA), Australia. Her lecturing career since 1978 includes among others, these institutions: Faculty of Economics-UGM, Yogyakarta, Lembaga Pendidikan Perkebunan (LPP) Kampus Yogyakarta (1981-1984), LPP Kampus, Medan (1984-1989), And since 1989, she is a Lecturer of Sekolah Tinggi Manajemen IPMI, Jakarta. Since 2017, she has produced more than hundred international journals, three (3) monograph books, three (3) teaching books, and seven (7) modules. She earned International Best Paper Awards from The 16th KLIBEL Conference in Kuala Lumpur, Malaysia 2018, 1st and 8th International Communication, Economics, Organization (CEO) in 2020 and 2023.

She has conducted training programs for topics of: Budgeting, Strategic Cost Management, Production Sharing Contract Acct, Management Accounting, Financial Accounting, Finance for non-Finance Manager, Accounting for Secretary, Capital Budgeting for Engineers, Accounting and Finance for Engineers. **Her Audience includes many different organizations/companies**: Chevron, Bank Indonesia, HSBC, Kaltim Prima Coal, Berau Coal, Asabri, Newmont, Freeport Ind, Pertamina, PGN, PT Timah, El Nusa, Telkom, etc.

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