ASSESING THE FINANCIAL DEVELOPMENT OF PT PLN (PERSERO) FOR 2020-2024 USING THE DU PONT SYSTEM

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Abstract

This study aims to assess the financial development of PT PLN (Persero) from 2020 to 2024. The method used is the Du Pont System, which divides Return on Assets (ROA) into two parts: Total Asset Turnover (TATO) and Net Profit Margin (NPM). This helps show how well the company utilizes its assets and how profitable it is. The data was obtained from PT PLN's financial reports for the last five years and analyzed descriptively. The results show that Total Asset Turnover continues to increase every year, meaning that the company is using its assets more efficiently. Net Profit Margin fluctuated, with an overall upward trend until 2023, then experienced a slight decline in 2024. When looking at the overall Return on Investment (ROI) using the Du Pont System, the results show positive growth with an average ROI of 12.4%. These results indicate that PT PLN has improved its financial performance by better managing its assets and increasing its profits. This is useful for stakeholders to understand the company's strengths and how it may face challenges in the future.

Keywords: Du Pont System, financial development, PT PLN (Persero), Return on Investment, asset efficiency, profitability

Introduction

A company's performance and value can be assessed based on how well it performs financially. Every company wants to know how well it is performing by looking at its profits, which are a key indicator of its performance. Examining this helps to understand how much the company has achieved and where there may be obstacles. To see this, companies use financial statements and various methods. One of them is financial ratio analysis, which helps stakeholders and shareholders obtain useful information (Sudana, 2011).

One good way to analyze financial performance is the Du Pont System. This method divides return on assets (ROA) into two parts, namely: total asset turnover and net profit margin.

This provides a complete picture of how well a company is performing, including how well it is utilizing its assets and how much profit it is generating from its operations (Hutasoit, et al., 2019).

The Du Pont system also helps identify the most important factors for return on investment (ROI), whether they come from increased profits or more efficient use of assets (Lestari, W.D., and M. Dziqron, 2014). It can also help measure how well a company controls costs and utilizes its assets, which is important for seeing how sales change over time.

This study analyzes PT PLN (Persero), a large state-owned company in the electricity sector that plays a key role in the national economy, as it has a wide range of business activities and manages many assets. Analyzing its financial performance from 2020 to 2024 using the Du Pont System can show how it has developed financially. The results of this study are expected to help shareholders and other stakeholders understand the company's performance and future potential.

Theoretical Framework Profile of PT. PLN Persero

PT. PLN (Persero) is a state-owned company operating in the electricity sector with more than 70 years of experience in providing electricity to all regions of Indonesia. The company was founded on October 27, 1945, and its main objective is to provide reliable, efficient, and sustainable electricity to meet the country's needs. As the main electricity provider in Indonesia, PLN is committed to supporting economic growth and improving the quality of life of the community by providing fair and high-quality electricity.

PLN manages all aspects of the electricity process, from production to distribution to households and businesses. PLN is growing rapidly and using new technologies and ideas to address issues in the energy industry. PT. PLN PERSERO has several main areas of operation, namely:
1) Electricity generation,
2) Electricity transmission,
3) Electricity distribution, 4) Renewable energy development, 5) Customer service and support.

Financial Statements and Financial Statement Analysis

PT PLN (Persero) Based on its audited financial statements for 2024, the company recorded strong financial results. Sales revenue in 2024 reached IDR 545.38 trillion, which is a significant increase compared to previous years. Sales costs amounted to IDR 379.73 trillion, resulting in a gross profit of approximately IDR 39.35 trillion. The company's net profit after tax in 2024 reached around IDR 17.76 trillion. The company's total assets increased to around IDR 1,772 trillion, with well-managed liabilities, indicating an increasingly strong capital structure. Positive operating cash flow amounted to IDR 75.4 trillion, and cash balance at the end of the year reached IDR 61.4 trillion, an increase compared to the previous year. PLN also succeeded in reducing its Debt to Equity Ratio (DER) to 38.02% and increasing its Consolidated

Interest Coverage Ratio (CICR) to 3.71 times, indicating that the company has good financial strength for long-term investments.

Analysis of PT PLN (Persero)'s financial statements shows stable revenue growth of more than 58% over the last five years (2020-2024). The company has also successfully controlled operating costs, which has helped increase operating profit margins, especially since 2022. The increase in the company's assets, which reached IDR 1,772 trillion, combined with a more controlled increase in liabilities, has strengthened the company's capital structure. The decline in the DER ratio indicates that the company has become less dependent on debt without compromising its ability to finance operations. The company has also improved liquidity through strict cash management and efficiency efforts, such as establishing a Cash War Room and centralizing payments. However, PLN still faces several challenges, including dependence on government support and changes in foreign exchange rates. On the other hand, there are opportunities in the use of new and renewable energy sources and the electrification of transportation.

Financial Performance

Financial performance shows how well a company performs financially over a certain period of time (Hutasoit et al., 2019). It is important to analyze financial performance in order to understand the extent of the company's achievements and obtain information about how funds are managed, where they are used, and how effectively and efficiently they are used (Batchimeg, 2017).

Financial Ratios

The use of financial ratios in financial statement analysis helps to obtain more useful information. There are various ways to use these ratios to examine how a

company's financial condition changes. These methods include cross-section analysis, trend analysis, and comparative analysis. Financial ratios are grouped based on what they measure or how useful they are, such as liquidity, activity, profitability, return, and investment ratios (Myskova R. and P. Hajek, 2017).

To evaluate a company's financial performance, financial ratios are used. These ratios are divided into different categories. Each ratio is calculated for a specific purpose. After calculating these ratios, the results are analyzed and explained, which can assist in decision making (Lestari, W.D., and M. Dziqron, 2014). According to Harjito and Martono (2013), some of these ratios include:

Activity Ratio

The activity ratio helps assess how well a company's management manages its assets. This ratio shows how a company strives to use its inventory and other assets in the best way possible and maximize its performance. This includes company rules for managing assets and promoting products. This ratio analyzes the relationship

between sales in the income statement and how quickly assets turn over in the balance sheet.

Profitability Ratio

Profitability ratios show how much profit a company generates compared to its sales or assets. These ratios analyze how profits relate to sales and how profits relate to invested capital. The way sales and profits are related tells us how well the business is performing in generating money.

Du Pont System

Based on Weston and Copeland (in Lestari W.D. and M. Dziqron, 2014), the application of the Du Pont System in analyzing financial performance combines profit margins and activity ratios against sales, where these ratios are interrelated in determining the profits generated from asset management. Brigham and Joel (2010) state that the Du Pont System is related to financial performance, where "profit ratios reflect the end result of financial policies and operational decisions. This is because profits are a collection of ratios that show the combined effects of liquidity, asset management, and debt on operational results."

Several ratios used in the Du Pont System, according to Syahyunan (2015) (in Hutasoit et al., 2019), include:

a) Asset Turnover, describes how well a company manages all of its assets or investments to generate revenue.
b) Net Profit Margin (Return on Sales), calculates how much net profit a company earns.
c) Return on Investment (Return on Assets) shows how much return a company's business activities generate on its assets.
d) Asset Leverage, also known as equity multiplier, measures the amount of capital/equity compared to total assets, or can be interpreted as how much of the assets are financed by debt.
e) Return on Equity shows the company's ability to earn net profit using its own equity/capital, then obtain net profit available to investors or owners. In the Du Pont system, Return on Equity (ROE) is obtained by multiplying Return on Assets by the equity multiplier.

The Du Pont system is the return on investment (ROI) obtained from profit multiplied by the profit ratio (sales) and also the activity ratio (total asset efficiency) in obtaining profit. The Du Pont system has advantages in assessing a company's financial performance because it is able to describe financial performance results comprehensively (Phrasasty, et al., 2015).

Method

This research methodology describes the type of research conducted, the data collection methods, and the objects studied. This research is a descriptive statistical study. Researchers collected information from various sources such as books, articles, news, and other reliable sources such as government websites and official standards. The research period covers five years, from 2020 to 2024. The company studied is PT PLN Persero. The Du Pont System method was used to analyze the data. The data used in this study is secondary data, obtained from PT PLN's financial reports taken from their official website.

Data Analysis Methods

In processing research data, the steps taken in calculating the Du Pont System (Lestari, W.D., and Moh. Dziqron, 2014) include:

(Step 1)

Determine Total Asset Turnover (TATO). In this case, the company can measure the extent to which it is able to turn over its assets to generate sales. Formula:

$$Total\ Assets\ Turnover\ (TATO) = \frac{Sales}{Total\ Assets} \times 1\ times$$

(Step 2)

Calculate the Net Profit Margin (NPM), which will reveal the company's profit by dividing the after-tax profit (net profit) by sales (net revenue) (Hutasoit, et al., 2019). Formula:

$$Net\ Profit\ Margin\ (NPM) = \frac{Profit\ After\ Tax}{Sales} \times 100\%$$

(Step 3)

Determining Return on Investment (ROI) is the total assets managed by an entity related to management efficiency. ROI is also referred to as the rate of return on investment, referring to capital, asset purchases, and budgets spent as investment costs.
Formula:

$$Return\ on\ Invesment\ (ROI) = Net\ Profit\ Margin \times Total\ Assets\ Turnover$$

(Step 4)

Assessing a company's financial performance. A company's financial performance refers to its track record in managing all of its potential assets, with the aim of determining the extent of its development (Maith, 2013). Financial statements are a tool for assessing financial performance. Financial statements include a statement of financial position at the end of the period, a comprehensive income statement for the period, a statement of changes in equity for the period, a cash flow statement for the period, and notes to the financial statements. To evaluate financial performance, ratio analysis is used in financial statements. One of these can be seen from the ROI.

A good company is characterized by high asset turnover and net profit margin. This means that the entity's performance in generating profits is increasing. On the other hand, the entity's performance is considered poor if the net profit generated and the turnover of assets managed are very low (Lestari and Moh. Dziqron, 2014). (Book Antiqua; bold; font 12; justified, single space)

Results and Discussion

The Du Pont system is an analysis used to examine which factors are most influential, whether it is profit margin or total asset turnover on return on investment (ROI) (Lestari, W.D., and M. Dziqron, 2014).

Total Asset Turnover (TATO) Analysis

TATO analysis is conducted to determine the extent to which a company is able to generate income from the use of company assets. In PT PLN (Persero)'s financial statements, TATO is calculated by dividing net income by the total assets of the company in a given period, then multiplying by 1.

Table.1 Total Asset Turnover (TATO)

Number	Year	Sales	Total Assets	TATO
1	2020	Rp 345.415.637	Rp 1.588.914.720	0,22
2	2021	Rp 368.174.270	Rp 1.613.216.456	0,23
3	2022	Rp 441.131.943	Rp 1.638.139.276	0,27
4	2023	Rp 487.384.064	Rp 1.670.639.704	0,29
5	2024	Rp 545.380.993	Rp 1.772.375.266	0,31

Rata-Rata	0,26
Nilai Maksimum	0,31
Nilai Minimum	0,22

Source: Processed data, 2025

Table 1 shows that PT PLN (Persero)'s Total Asset Turnover (TATO) data from 2020 to 2024 indicates that TATO continues to increase every year. On average, TATO during this period is 0.26 times, meaning that for every Rp 1 of total assets, the company generates sales of 0.26 times. The highest TATO was recorded in 2024, at 0.31 times, while the lowest was in 2020, at 0.22 times. This shows that PT PLN (Persero) has become increasingly efficient in utilizing its assets to generate sales each year from 2020 to 2024.

Net Profit Margin (NPM) Analysis

NPM analysis is used to determine the net profit or gain from a company's sales. This is obtained by dividing net profit by net income. In PT PLN (Persero)'s financial statements, NPM is calculated by dividing net profit for the current year by the company's net income for a specific period.

Table.2 Net Profit Margin

Number	Year	Profit After Tax	Sales	NPM%
1	2020	Rp 5.993.428	Rp 345.415.637	1,7%
2	2021	Rp 13.174.877	Rp 368.174.270	3,6%
3	2022	Rp 14.414.720	Rp 441.131.943	3,3%
4	2023	Rp 22.071.458	Rp 487.384.064	4,5%
5	2024	Rp 17.763.024	Rp 545.380.993	3,3%
Rata-Rata				3,3%
Nilai Maksimum				4,5%
Nilai Minimum				1,7%

Source: Processed data, 2025

Based on Table 2, PT PLN (Persero)'s Net Profit Margin (NPM) data from 2020 to 2024 shows that the highest NPM was recorded in 2023 at 4.5%. This means that for every Rp 1 in sales, the company earned a profit of 4.5%. The average NPM during this period was 3.3%, with the lowest value of 1.7% in 2020. NPM fluctuated up and down, but generally increased until 2023, then decreased in 2024. This shows how well the company managed its profits compared to its total sales during that period.

Calculation Results using the Du Pont System

The explanation of TATO and NPM calculations has been explained on the previous page. The following are the results of calculations and discussions regarding the financial performance of PT. PLN Persero using the Du Pont System method.

Table.3 Calculation Results using the Du Pont System

Number	Year	Net Profit Margin	Total Assets Turnover	ROI
1	2020	1,7%	0,22	8,0%
2	2021	3,6%	0,23	15,7%
3	2022	3,3%	0,27	12,1%
4	2023	4,5%	0,29	15,5%
5	2024	3,3%	0,31	10,6%
Rata - Rata				12,4%
Nilai Maksimum				15,7%
Nilai Minimum				8,0%

Source: Processed data, 2025

Table 3 shows that PT PLN (Persero)'s return on investment (ROI) changed from 2020 to 2024. The best year for ROI was 2021, with a return of 15.7%, while the worst year was 2020, with a return of 8.0%. On average, during this period, PT PLN's ROI was 12.4%. This means that for every unit of total asset turnover during the 2020–2024 period, PT PLN (Persero) earned a return on investment of 12.4%.

Based on the results of calculating several variables using the Du Pont System method, the financial performance of PT PLN (Persero) during the 2020–2024 period can be explained as follows:

1. Based on Total Asset Turnover (TATO), the performance of PT PLN (Persero)'s assets fluctuated each year. TATO showed an increasing trend, from 0.22 in

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