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Du Pont System Analysis of Companies Listed on the Indonesian Stock Exchange for the 2020–2024 Period

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ABSTRACT
Du Pont System is a financial analysis framework used to evaluate a company's ability to generate profits while optimizing the utilization of equity owned by shareholders. The population in this study includes companies engaged in the pharmaceutical sector and listed on the Indonesia Stock Exchange (IDX) for the period 2020-2024. The average Net Profit Margin (NPM) of 8.37% indicates that, in general, pharmaceutical companies are still able to generate net profits from their sales activities. In terms of asset utilization efficiency, the average Total Asset Turnover (TATO) value of 0.76 shows that pharmaceutical companies are not yet fully efficient in utilizing their assets to generate sales. The interaction between profitability and asset efficiency is reflected in the average Return on Investment (ROI) value of 8.09%. From a capital structure perspective, the average Equity Multiplier (EM) value of 1.79 indicates that pharmaceutical companies generally use debt-based financing to a significant extent. The average Return on Equity (ROE) value for the pharmaceutical industry of 9.28% shows that, overall, pharmaceutical companies are still able to provide positive returns to shareholders. The results of the Du Pont System analysis based on industry averages show that the performance of the pharmaceutical sector during the 2020-2024 period is fairly stable, but not yet optimal. Future improvements in industry performance need to focus on strategies to increase asset efficiency and strengthen operational profitability, rather than solely through increased leverage. Thus, pharmaceutical companies are expected to be able to generate healthier and more sustainable financial performance growth.

Keywords: Du Pont System, Net Profit Margin (NPM), Total Assets Turnover (TATO), Return on Investment (ROI), Equity Multiplier (EM).
JEL Code: G30, L65, M41

I. Introduction

The pharmaceutical sector has considerable opportunities for growth in Indonesia. Although the pharmaceutical sector is experiencing growth, there are challenges that affect revenue due to dependence on imported raw materials and the influence of external factors such as inflation and government health policies. Therefore, in-depth financial analysis is needed to identify the strengths and weaknesses of companies in order to provide strategic recommendations for management and investors. One of the main

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indicators for assessing a company's ability to manage its resources in order to achieve profit and business sustainability is financial performance analysis. In an era of increasingly fierce capital market competition, investors and stakeholders need analytical tools that can provide a comprehensive picture of a company's financial condition. One of the most widely used analysis methods is the Du Pont System, which breaks down Return On Equity (ROE) into three main components, namely Net Profit Margin (NPM), Total Asset Turn Over (TATO) and Equity Multiplier (EM). This approach not only assesses the company's ability to generate profits, but also explores how asset efficiency and capital structure affect the rate of return on equity. Most previous studies only analyzed financial risk without comparing companies and five-year trends. This study combines the Du Pont System approach with five-year trend analysis and inter-company comparisons to identify patterns of efficiency and sectoral profitability more comprehensively. Cross-sector research reinforces the relevance of this method. Sudiyono et al. (2025) confirms that the Du Pont System is effective for analyzing the financial condition of pharmaceutical companies on the IDX. Prasetya and Azizah (2025) found a strategic relationship between asset efficiency and profitability at PT Indofood CBP. Meanwhile Al Pasha et al. (2023) prove that the Du Pont System is capable of assessing the effectiveness of business strategies on the financial performance of PT Kalbe Farma Tbk. According to Widowati & Masdjojo (2025), financial performance evaluation in the public sector shows that financial ratio analysis is an important instrument for assessing the effectiveness, efficiency, liquidity, and financial independence of an entity.

These findings are relevant to the application of the Du Pont System to companies listed on the Indonesia Stock Exchange (IDX), as the Du Pont System also emphasizes breaking down financial performance into profitability, asset efficiency, and funding structure components. Thus, Du Pont analysis not only provides an overview of the return on equity (ROE) but also comprehensively identifies operational and managerial factors that influence a company's financial performance. Recent research also reinforces the position of the Du Pont System as an adaptive analysis tool. Hasrul et al. (2025) found an increase in asset efficiency at PT HM Sampoerna Tbk, meanwhile Oktaviani et al. (2023) found a decline in ROE at PT Sumber Alfaria Trijaya Tbk. due to a decline in profit margins, and Supriyanto (2021) assessed the effectiveness of this method in assessing the capital structure of engineering companies. Fadhillah et al. (2024) combined Du Pont and Common Size to strengthen the mapping of company performance, while Suyudi and Novifa (2024) showed that differences in net profit margins and asset turnover determine variations in profitability in the consumer goods industry. From the financial market perspective, Abadiyah (2024) ound a significant relationship between Du Pont System-based financial performance and stock returns in insurance companies. Furthermore, Dwiansyah (2025) emphasized that this method is capable of evaluating financial strengths and weaknesses across industries, including the petroleum sector. Additionally, Prasetiyo and Isnuwardiati (2022) identified a decline in asset efficiency in the manufacturing sector during the COVID-19 pandemic, while Windi Ayuningtyas et al. (2025) showed that the increase in return on equity (ROE) of PT Mayora Indah Tbk. was driven by asset turnover efficiency. From an international perspective, Apriliani et al. (2021) show that a combination of Du Pont analysis and Economic Value Added (EVA) can provide a more comprehensive performance evaluation of PT Matahari Putra Prima. Furthermore, Jiang (2023) reveals that operational efficiency is a key factor in increasing the profitability of the hospitality industry in Southeast Asia. Guan (2024) in his study of Pfizer shows that financing policy plays a significant role in return on equity (ROE), while Sharma (2025) finds that asset efficiency is the most dominant indicator in maintaining the profitability of the pharmaceutical industry in India.

Table 1. Net Profit After Tax of Companies Listed on the Indonesian Stock Exchange (2020–2024)

Company Name	2020	2021	2022	2023	2024
PT Darya Varia Laboratoria Tbk	162,072	146,725	149,375	146,336	156,147
PT Merck Tbk	71,902	131,660	179,837	178,240	153,463
PT Kalbe Farma Tbk	2,799,622	3,232,007	3,450,083	2,778,404	3,246,569
PT Kimia Farma Tbk	20,425	289,888	-126,024	-2,260,684	-1,208,172

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PT Industri Jamu dan Farmasi Sido Muncul Tbk	934,016	1,260,898	1,104,714	950,648	1,171,026
PT Pharpros Tbk	48,665	11,296	27,395	7,923	-290,632
PT Tempo Scan Pacific Tbk	834,369	877,817	1,037,527	1,250,247	1,548,405

Source: Indonesian Stock Exchange (IDX)

Based on net profit after tax data for the 2020 - 2024 period, the financial performance of seven pharmaceutical companies exhibits heterogeneous patterns:

a. PT Darya Varia Laboratorium Tbk recorded relatively stable net profits with a generally upward trend, increasing from IDR 162,072 million in 2020 to IDR 156,147 million in 2024. Despite experiencing minor fluctuations in 2023, the company demonstrated an ability to maintain financial performance stability.
b. PT Merck Tbk showed a declining performance after reaching its peak net profit of IDR 179,837 million in 2022. Net profit decreased to IDR 153,463 million in 2024, which may indicate a deterioration in operational efficiency or increasing production cost pressures.
c. PT Kalbe Farma Tbk consistently remained the most profitable company in the pharmaceutical sector, with net profit rising from IDR 2,799,622 million in 2020 to IDR 3,246,569 million in 2024. This relatively stable growth reflects the company's capability to manage large-scale operations and sustain profitability amid intense industry competition.
d. The net profit performance of PT Kimia Farma Tbk exhibited high volatility throughout the observation period. In 2020, net profit amounted to IDR 20,425 million and increased substantially to IDR 289,888 million in 2021. However, the company began recording losses of IDR 126,024 million in 2022, which escalated sharply in 2023 to IDR 2,260,684 million. Although losses declined to IDR 1,208,172 million in 2024, this performance indicates the presence of significant structural and operational challenges within the company.
e. PT Industri Jamu dan Farmasi Sido Muncul Tbk demonstrated relatively consistent growth, with net profit increasing from IDR 934,016 million in 2020 to IDR 1,171,026 million in 2024. This positive performance suggests effective business strategies and strong operational efficiency in a dynamic market environment.
f. PT Phapros Tbk. experienced a substantial decline in net profit performance during the study period. Net profit after tax amounted to IDR 48,665 million in 2020 but dropped sharply to IDR 11,296 million in 2021. Although profitability improved in 2022 to IDR 27,395 million, net profit declined again in 2023 to IDR 7,923 million. In 2024, the company recorded a net loss of IDR 290,632 million, indicating severe financial pressure and a deterioration in operational performance.
g. PT Tempo Scan Pacific also demonstrated significant growth, with net profit increasing from IDR 834,365 million in 2020 to IDR 1,548,405 million in 2024. This growth reflects the company's ability to expand market share and enhance profitability on a sustained basis.

To comprehensively understand these performance differences, an analytical method capable of evaluating corporate financial performance from multiple perspectives is required. One appropriate approach is the Du Pot System, which explains the interrelationships among profitability, asset utilization efficiency, and capital structure. By applying this system, researchers can identify the key factors influencing the level of Return on Equity (ROE) and assess the extent to which companies effectively manage their assets and capital to generate net profits.

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II. Literature Review and Hypothesis Development

2.1. Financial Management

Corporate financial management is an area of business management that focuses on longterm investment decisions and working capital management, which includes aspects of short-term investment and financing (Al Pasha et al., 2023). Junaedy and Pattiasina (2023), explain that efficient financial management requires clear objectives as standards for assessing the effectiveness of financial decisions. The main objective of financial management is to maximize company value, which will ultimately improve the welfare of company owners or shareholders. Thus, every financial decision made must be directed towards supporting the achievement of this objective. In the context of the pharmaceutical sector, financial management becomes more complex because companies are not only required to achieve economic efficiency, but must also consider aspects of health regulations, research and development (R&D), and fluctuations in demand for health products that are sensitive to social conditions and government policies. Therefore, the financial management approach in this sector must emphasize sustainable funding strategies, production cost control, and research asset management. The main functions of financial management include investment decisions, financing decisions, and asset management decisions. Investment decisions relate to the allocation of company funds to assets that are expected to generate profits in the future. Financing decisions relate to determining sources of funds, both from internal capital and external parties. Meanwhile, asset management decisions relate to the management and utilization of company assets so that they can be used effectively and efficiently (Junaedy & Pattiasina, 2023).

2.2. Financial Statements

Financial statements are the final output of a series of accounting processes that present information about the financial position and performance of a company in a given period, as reflected in financial position reports and income statements, such as balance sheets, income statements, and statements of changes in financial position. Financial statements present information related to assets, liabilities, equity, income, expenses, cash flows, and other relevant data needed as a basis for assessing the company's performance and condition (Sudiyono et al., 2025). The main purpose of preparing financial statements is to present relevant information about the financial position, operating performance, and cash flow movements of an entity, which is useful to stakeholders as a basis for making economic decisions (Al Pasha et al., 2023). Base on PSAK No. 1 IAI in Al Pasha et al. (2023), a complete financial report of an entity consists of:

a. The Statement of Financial Position (Balance Sheet) is a report that presents information about the company's assets, liabilities, and capital on a certain date.
b. Income Statement and Other Comprehensive Income is a report that presents the company's financial performance in a certain period, including income, expenses, and profits or losses generated.
c. Statement of Changes in Equity is a report that informs changes in owner's equity resulting from profits or losses, dividend distributions, and various other capital transactions within a certain period.
d. Cash Flow Statement is a document that shows data on money coming in and out of the company, which is divided into operational, investment, and financing activities.
e. Notes to Financial Statements (CALK) are elements of financial statements that provide additional explanations regarding the accounting policies used, details of the components of financial statements, and other information that is important to clarify understanding for users of the statements.

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Financial statement analysis is conducted to identify correlations and trends between items in the financial statements, with the aim of evaluating the company's financial condition and operational performance over a certain period of time (Suyudi & Novifa, 2024). Sudiyono et al. (2025), define financial statement analysis as a process of decomposing financial data into more detailed components in order to examine the relationships among accounts and obtain a more comprehensive understanding of a company's financial condition. This analysis assists users in identifying trends, evaluating performance developments, and supporting strategic decision-making. Commonly used analysis methods include:

a. Financial Ratio Analysis, such as liquidity, activity, solvency, and profitability ratios.
b. Du Pont System Analysis is an extension of profitability ratio analysis used to identify and trace the factors causing changes in Return on Equity (ROE).

2.3. Financial Performance

Financial performance reflects a company's ability to effectively manage its resources to generate profits and meet all its financial obligations. According to Rabbani et al. (2023) financial performance is defined as a company's ability to manage and optimize its assets to effectively generate profits and revenues in accordance with applicable regulations. In pharmaceutical companies, financial performance reflects the effectiveness of production and distribution strategies, as well as the company's ability to cope with external pressures such as drug price regulations and exchange rate fluctuations. The decline in net profit experienced by a number of pharmaceutical companies in Indonesia, such as PT Kimia Farma Tbk and PT Phapros Tbk, indicates that inefficient financial performance has the potential to cause a decline in return on equity (ROE). Pharmaceutical companies are capital-intensive industries with high research and development costs and complex regulatory dynamics. Therefore, financial performance analysis is important for:

a. Evaluate the operational efficiency of drug production,
b. Measure the effectiveness of working capital management,
c. Assess the company's ability to generate profits amid intense competition,
d. Determine strategies to increase company value in the 2020-2024 period.

2.4. Financial Ratios

Financial ratios are numerical indicators obtained from comparisons between one item in the financial statements and another item that has a relevant and significant relationship, such as comparisons between debt and equity, cash and total assets, or production costs and total sales. Financial ratio analysis is used to evaluate the effectiveness of a company's managerial decisions in supporting and sustaining its operational activities (Prasetiyo & Isnuwardiati, 2022). Financial ratios are grouped into five main categories according to (Brigham & Houston, 2019) :

a. Liquidity ratio is a ratio used to assess a company's ability to meet its short-term obligations.
b. Solvency (Leverage) ratio is used to measure a company's ability to meet its long-term obligations.
c. Activity ratio serves to evaluate the level of efficiency of a company in utilizing its assets to generate income.
d. Profitability Ratio is used to assess a company's ability to generate profits from sales and investment activities.
e. Market Ratio is used to assess a company's performance from an investor's perspective.

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2.5. Du Pont System

According to Al Pasha et al. (2023), Du Pont System is a comprehensive financial analysis method that integrates two main financial statements, namely the balance sheet and income statement, into a series of profitability ratios to assess the company's efficiency in generating profits. Basri et al. (2024) using Du Pont analysis to provide a more comprehensive picture of the interaction between profitability, asset efficiency, and financial structure in determining the financial performance of pharmaceutical companies. The main essence of this system lies in its ability to break down Return on Equity into several interrelated components, thereby providing a more structured explanation of financial performance. With this approach, management and analysts can conduct a more comprehensive assessment of various aspects of the company's operations. (Ayuningtyas et al., 2025). The strength of the Du Pont System lies in its ability to serve as a comprehensive and thorough financial analysis method, breaking down ROE into three main elements, enabling management to understand how profitability, asset efficiency, and financial leverage each contribute to the company's performance (Lubis et al., 2025). Rabbani et al. (2023) explain that the advantage of the Du Pont System is its ability to provide management with information on the level of efficiency in the utilization of company assets. This is possible because the Du Pont financial analysis method is comprehensive, enabling companies to identify product performance potential in greater depth. Through this approach, the profitability of each product produced can be measured more accurately, allowing management to assess the role of each product in the company's overall financial performance. The weakness of the Du Pont System lies in the difficulty of comparing ROI between companies in the same industry, due to differences in the accounting methods applied by each company. In addition, ROI has certain limitations so that it cannot be fully used to compare two or more issues simultaneously to produce truly accurate and adequate conclusions (Fadhillah et al., 2024).

III. Research Method

The method used to analyze data in this study is descriptive quantitative analysis using the Du Pont System approach. This approach is carried out by examining the relationship between NPM, TATO, and EM in influencing ROE value. The Du Pont System analysis process in pharmaceutical companies is carried out by breaking down the main components that determine financial performance, namely Net Profit Margin (NPM), Total Asset Turnover (TATO), and Equity Multiplier (EM), which then produce Return on Equity (ROE). This stage is particularly relevant to the pharmaceutical industry, given its capital-intensive nature, long production cycles, and dependence on research and development (R&D). The type of data used in this study is secondary data, which is data obtained indirectly from primary sources. The data sources include:

a. Annual financial reports of pharmaceutical companies obtained through the official website of the Indonesia Stock Exchange (www.idx.co.id).
b. Annual reports of each company obtained from the companies' official websites.
c. Literature, books, and scientific journals relevant to the Du Pont System analysis and financial performance.

According to (Fadhillah et al., 2024) the variable measurements used in the Du Pont System are as follows:

a. Net Profit Margin

Net Profit Margin (NPM) is a ratio used to assess the percentage of profit generated by a company in a certain period. A high NPM value reflects the company's ability to achieve optimal financial performance. The calculation formula is:

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$$NPM = \frac{Nett\ Profit}{Sales} \times 100\%$$

b. Equity Multiplier

Equity Multiplier is a ratio used to describe the extent to which a company's assets are financed by equity. A higher Equity Multiplier value indicates a company's greater ability to utilize its capital structure. The calculation formula is:

$$EM = \frac{Total\ Assets}{Equity}$$

c. Total Asset Turn Over

Total Asset Turnover (TATO) or asset turnover ratio is an indicator used to reflect the level of efficiency of a company in utilizing its assets as resources to generate sales. The calculation formula is:

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

d. Return on Investment

Return on Investment (ROI) is a ratio used to describe a company's ability to generate net income after deducting interest and tax expenses, relative to its total assets. This ratio reflects the company's efficiency in utilizing all available assets and shows the effectiveness of management in generating profits on investments. The calculation formula is:

$$ROI = \frac{Nett\ Profit}{Total\ Assets} \times 100\%$$

e. Return on Equity

Return on Equity (ROE) is a ratio used to evaluate a company's ability to generate net income after deducting interest and tax expenses, relative to the total equity invested by owners. This ratio reflects the company's effectiveness in utilizing its own capital to generate profits. The calculation formula is:

$$ROE = \frac{Nett\ Income}{Equity} \times 100\%$$

Through the Du Pont System, researchers can evaluate the extent to which pharmaceutical companies are able to convert their revenue into profit (NPM), use assets efficiently amid high investment in machinery and production facilities (TATO), and manage their financing structure involving debt and equity composition (EM). Furthermore, the Du Pont System is a comprehensive method for measuring the impact of operational efficiency and funding strategies on ROE, which is the rate of return for shareholders. This comprehensive approach is in line with the Du Pont System concept as explained in (Dwiansyah, 2025). In the pharmaceutical sector, NPM analysis is crucial because profit margins are greatly influenced by raw material costs, drug production costs, and new formulation research costs. The 2020-2024 period is also marked by the dynamics of global pharmaceutical raw material prices and increased demand for health products, which can affect margin performance. Furthermore, the TATO calculation provides an overview of the effectiveness of asset utilization, which is important because pharmaceutical companies tend to have large fixed assets, such as factories, laboratories, and sterile production facilities. When TATO is low, it indicates that production capacity is not yet optimal or that sales are unable to keep pace with asset growth.

Meanwhile, EM is analyzed to examine the company's funding strategy, whether the company is increasingly relying on debt to fund its operational activities and expansion, such as developing new factories

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or investing in R&D. An increase in EM, as also found in previous studies Dwiansyah, (2025) may indicate an increase in leverage that has the potential to increase financial risk. The overall results of the calculations using the Du Pont System are then combined to draw conclusions about the financial performance of pharmaceutical companies during the research period. By analyzing the relationship between NPM, TATO, and EM as determinants of ROI and ROE, researchers can identify the main factors that affect company profitability. For example, low ROE can result from profit margins being squeezed due to high production costs or low TATO due to large amounts of idle assets. Conversely, increased ROE can be caused by improved operational efficiency or higher sales growth compared to asset growth. Through the Du Pont System approach, research can conclude whether pharmaceutical companies are in a strong financial position or still face structural obstacles that need to be addressed. Thus, the Du Pont System not only helps to describe financial performance quantitatively, but also reveals the cause-and-effect relationships of each component change, resulting in more in-depth and argumentative conclusions. In summary, the stages in the Du Pont System analysis can be outlined in the following steps:

a. Collect financial report information from each company in the study for the years 2020 to 2024.
b. Calculating financial ratios:
    1) Net Profit Margin (NPM)
    2) Total Asset Turnover (TATO)
    3) Equity Multiplier (EM)
    4) Return on Equity (ROE) = NPM × TATO × EM
c. Analyzing five-year trends (2020 - 2024) to see the development of efficiency and profitability of pharmaceutical companies.
d. Comparing companies to assess differences in asset efficiency, profitability, and leverage in the pharmaceutical sector.
e. Drawing conclusions and strategic recommendations based on the results of the Du Pont System analysis.

IV. Result and Discussion

4.1. Net Profit Margin Analysis

Net Profit Margin (NPM) describes a company's ability to generate net profit from its sales activities. The following are the Net Profit Margin calculations for companies in the pharmaceutical sector for the period 2020-2024:

Table 2. Net Profit Margin of Pharmaceutical Companies Listed on the Indonesian Stock Exchange (2020–2024)

Company Name	2020	2021	2022	2023	2024	Average
PT Darya Varia Laboratoria Tbk	0,86	7,72	7,79	7,74	7,48	7,92
PT Merck Tbk	10,96	12,37	15,99	18,54	14,80	14,53
PT Kalbe Farma Tbk	12,11	12,31	11,92	9,12	9,95	11,08
PT Kimia Farma Tbk	0,20	2,25	-1,36	-22,90	-12,16	-6,79
PT Industri Jamu dan Farmasi Sido Muncul Tbk	28,00	31,36	28,58	26,66	29,88	28,89
PT Pharpros Tbk	4,96	1,07	2,34	0,79	-39,03	-5,97
PT. Tempo Scan Pasific Tbk.	7,61	7,81	8,47	9,53	11,34	8,95
Overall Average Net Profit Margin: 8,37						

Source: Data processed by the authors (2025)

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The NPM values of pharmaceutical companies in Indonesia show considerable variation in performance. PT Industri Jamu dan Farmasi Sido Muncul Tbk. has the highest profitability with an average NPM of 28.89%, indicating high cost efficiency and high product margins. In contrast, PT Kimia Farma Tbk. and PT Phapros Tbk. have very poor profitability with NPMs of -6.79% and -5.97%, respectively, indicating recurring operating losses. Meanwhile, companies such as PT Merck Tbk. (14.53%), PT Kalbe Farma Tbk. (11.08%), PT Tempo Scan Pacific Tbk. (8.95%), and PT Darya Varia Laboratoria Tbk. (7.92%) show healthy and stable profitability performance. Overall, despite significant differences between companies, the pharmaceutical industry's average NPM of 8.37% still indicates moderate profitability. These findings are in line with the research (Sudiyono et al., 2025) and (Yanti & Diatmika, 2022) which states that net profit margin is a key indicator in assessing the profitability of pharmaceutical companies. Furthermore, the results of this study also support the findings of (Guan, 2024) and (Oktaviani et al., 2023), which confirm that a decline in NPM will have a direct impact on a decline in a company's financial performance, particularly Return on Equity (ROE).

4.2. Total Asset Turnover Analysis

Total Asset Turnover (TATO) reflects the level of efficiency of a company in utilizing its assets to generate sales.

Table 3. Total Asset Turnover of Pharmaceutical Companies Listed on the Indonesian Stock Exchange (2020–2024)

Company Name	2020	2021	2022	2023	2024	Average
PT Darya Varia Laboratoria Tbk	0,92	0,91	0,95	0,93	0,97	0,94
PT Merck Tbk	0,71	1,04	1,08	1,00	1,08	0,98
PT Kalbe Farma Tbk	1,02	1,02	1,06	1,13	1,11	1,07
PT Kimia Farma Tbk	0,57	0,72	0,47	0,59	0,66	0,60
PT Industri Jamu dan Farmasi Sido Muncul Tbk	0,87	0,99	0,95	0,92	0,99	0.94
PT Pharpros Tbk	0,51	0,57	0,65	0,57	0,52	0,56
PT. Tempo Scan Pasific Tbk.	1,20	1,16	1,08	1,16	1,09	1,14
Overall Average Total Asset Turnover: 0,76						

Source: Data processed by the authors (2025)

The average TATO for the pharmaceutical sector is 0.76, indicating that companies' assets are not being fully utilized to increase sales. PT Tempo Scan Pacific Tbk. (1.14) and PT Kalbe Farma Tbk. (1.07) each demonstrate better asset management. Companies with low to moderate efficiency levels include PT Phapros Tbk. (0.56), PT Kimia Farma Tbk. (0.60), and PT Darya Varia Laboratoria Tbk. (0.94). The worst TATO performance was seen in PT Kimia Farma Tbk. and PT Phapros Tbk., which showed that they did not utilize their assets effectively to increase revenue, possibly due to high inventory and illiquid assets. The results of this study are consistent with the findings of Fitriyani et al. (2025), Rabbani et al. (2023), and Resmawan et al. (2023) which state that asset efficiency is an important factor in improving a company's financial performance. Additionally, research by Jiang (2023) and (Prasetiyo & Isnuwardiati, 2022) also shows that asset efficiency is a key factor in increasing company profitability, especially in the post-pandemic period.

4.3. Return On Investment Analysis

Return on Investment (ROI) is an indicator that shows a company's ability to generate profits from its total assets.

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Table 4. Return on Investment of Pharmaceutical Companies Listed on the Indonesian Stock Exchange (2020–2024)

Company Name	2020	2021	2022	2023	2024	Average
PT Darya Varia Laboratoria Tbk	8,15	7,03	7,40	7,20	7,26	7,41
PT Merck Tbk	7,78	12,86	17,27	18,54	15,98	14,49
PT Kalbe Farma Tbk	12,35	12,56	12,64	10,31	11,04	11,78
PT Kimia Farma Tbk	0,11	1,62	-0,64	-13,51	-8,03	-4,09
PT Industri Jamu dan Farmasi Sido Muncul Tbk	24,36	31,05	27,15	24,53	29,58	27,33
PT Pharpros Tbk	2,53	0,61	1,52	0,45	-20,30	-3,04
PT. Tempo Scan Pasific Tbk.	9,13	9,06	9,15	11,05	12,36	10,15
Overall Average Total Asset Turnover: 8,09						

Source: Data processed by the authors (2025)

PT Industri Jamu dan Farmasi Sido Muncul Tbk. has the highest ROI at 27.33%, indicating high profitability and good asset efficiency. PT Merck Tbk. (14.49%), PT Kalbe Farma Tbk. (11.78%), and PT Tempo Scan Pacific Tbk. (10.15%) are in the middle group, indicating that the companies' assets are being used productively and generating competitive returns. Conversely, PT Kimia Farma Tbk. (-4.09%) and PT Phapros Tbk. (-3.04%) are in a worse condition, indicating that the companies' assets are not only failing to generate profits. The pharmaceutical industry is generally still able to generate positive returns, despite the failure of some companies, according to the sector's average ROI of 8.09%. These findings are consistent with the results of Ayuningtyas et al. (2025) and Hasrul et al. (2025), which indicate that simultaneous improvements in asset efficiency and cost control have a positive impact on return on investment (ROI). In addition, Kusumaningtyas et al. (2025) emphasize that the Du Pont System is able to clearly identify the sources of strengths and weaknesses in a company's financial performance.

4.4. Equity Multiplier Analysis

Equity Multiplier (EM) represents a firm's capital structure by indicating the degree of financial leverage employed in financing its assets.

Table 5. Equity Multiplier of Pharmaceutical Companies Listed on the Indonesian Stock Exchange (2020–2024)

Company Name	2020	2021	2022	2023	2024	Average
PT Darya Varia Laboratoria Tbk	1,48	1,50	1,43	1,45	1,49	1,47
PT Merck Tbk	1,52	1,50	1,37	1,20	1,19	1,36
PT Kalbe Farma Tbk	1,23	1,21	1,23	1,17	1,20	1,21
PT Kimia Farma Tbk	2,47	3,02	2,47	3,48	4,37	3,16
PT Industri Jamu dan Farmasi Sido Muncul Tbk	1,19	1,17	1,16	1,15	1,13	1,16
PT Pharpros Tbk	2,59	2,48	2,67	2,61	3,64	2,80
PT. Tempo Scan Pasific Tbk.	1,43	1,40	1,50	1,40	1,36	1,42
Overall Average Total Asset Turnover: 1,79						

Source: Data processed by the authors (2025)

PT Kimia Farma Tbk. (3.16) and PT Phapros Tbk. (2.80) have the highest leverage, indicating that both companies are heavily dependent on debt-based financing. High leverage increases financial risk, especially in cases where companies experience operational losses. Conversely, PT Industri Jamu dan Farmasi Sido Muncul Tbk. (1.16) and PT Kalbe Farma Tbk. (1.21) have the lowest leverage, indicating a conservative capital

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structure and low financial risk. PT Darya Varia Laboratoria Tbk. PT Tempo Scan Pacific Tbk. (1.42), PT Merck Tbk. (1.36), and PT Tempo Scan Pacific Tbk. are in a moderate and relatively healthy leverage position. The pharmaceutical sector has an average EM of 1.79, indicating that most businesses tend to use internal funding, although there are some companies with high leverage. The average EM of the pharmaceutical sector shows that debt usage is still at a relatively reasonable level, although it needs to be managed carefully. The results of this study are in line with the findings of Lubis et al. (2025) , which state that fluctuations in return on equity (ROE) are influenced by changes in net profit margins and the level of corporate leverage. In addition Ardita et al. (2025) and Guan (2024) emphasize that financing structure and leverage policy have a significant influence on the stability of a company's financial performance.

4.5. Return On Equity Analysis

Return on Equity (ROE) is a key indicator in the Du Pont System that reflects the rate of return earned by shareholders on their invested capital. The results of the study show that companies with a combination of high profit margins, good asset efficiency, and a conservative capital structure tend to have high ROE.

Table 6. Return on Equity of Pharmaceutical Companies Listed on the Indonesian Stock Exchange (2020–2024)

Company Name	2020	2021	2022	2023	2024	Average
PT Darya Varia Laboratoria Tbk	12,06	10,55	10,58	10,44	10.82	10,89
PT Merck Tbk	11,83	19,29	23,66	22,25	19,02	19,21
PT Kalbe Farma Tbk	15,59	15,20	15,55	12,06	13,25	14,25
PT Kimia Farma Tbk	0,27	4,89	-1,58	-47,01	-35,09	-15,70
PT Industri Jamu dan Farmasi Sido Muncul Tbk	28,99	36,33	31,49	28,21	33,43	31,69
PT Pharpros Tbk	6,55	12,68	4,06	1,17	-73,86	-9,69
PT. Tempo Scan Pasific Tbk.	13,06	12,68	13,73	15,47	16,81	14,35
Overall Average Total Asset Turnover: 9,28						

Source: Data processed by the authors (2025)

PT Industri Jamu dan Farmasi Sido Muncul Tbk. has the highest ROE of 31.69%, indicating excellent and stable shareholder returns. PT Merck Tbk. has an ROE of 19.21% and PT Tempo Scan Pacific Tbk. has an ROE of 14.35%. PT Kalbe Farma Tbk. recorded 14.25% and PT Darya Varia Laboratoria Tbk. recorded 10.89%, while PT Kimia Farma Tbk. recorded -15.70% and PT Phapros Tbk. recorded -9.69%, each indicating that they were unable to create added value for shareholders due to large losses and high leverage. The sector's average ROE of 9.28% shows that pharmaceutical companies are generally still able to create value for shareholders. These findings are consistent with the research of Ayuningtyas et al. (025) and Rabbani et al. (2023) which states that ROE is greatly influenced by asset efficiency and company profitability. In addition, the results of this study also support the findings of Abadiyah (2024) which states that ROE has a positive effect on stock returns, so that ROE can be used as an important indicator in investment decision making.

4.6. Du Pont System Analysis

The Du Pont analysis used to assess the performance of pharmaceutical companies listed on the Indonesia Stock Exchange for the period 2020-2024 using Net Profit Margin, Total Asset Turnover, and Return on Equity is as follows:

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Table 7. Du Pont System Analysis of Pharmaceutical Companies Listed on the Indonesian Stock Exchange (2020–2024)

Company Name	Net Profit Margin	Total Asset Turnover	Return on Investment	Equity Multiplier	Return on Equity
PT Darya Varia Laboratoria Tbk	7,92	0,94	7,41	1,47	10,89
PT Merck Tbk	14,53	0,98	14,49	1,36	19,21
PT Kalbe Farma Tbk	11,08	1,07	11,78	1,21	14,25
PT Kimia Farma Tbk	-6,79	0,60	-4,09	3,16	-15,70
PT Industri Jamu dan Farmasi Sido Muncul Tbk	28,89	0,94	27,33	1,16	31,69
PT Pharpros Tbk	-5,97	0,56	-3,04	2,80	-9,69
PT Tempo Scan Pacific Tbk	8,95	1,14	10,15	1,42	14,35
Overall Average	8,37	0,76	8,09	1,79	9,28

Source: Data processed by the authors (2025)

The Du Pont System analysis of pharmaceutical companies listed on the Indonesia Stock Exchange (IDX) for the period 2020-2024 shows significant differences in financial performance among the companies. PT Industri Jamu dan Farmasi Sido Muncul Tbk. ranks highest with the highest Net Profit Margin, ROI, and ROE, reflecting strong profitability and operational efficiency. PT Merck Tbk., PT Kalbe Farma Tbk., and PT Tempo Scan Pacific Tbk. also show good performance with stable NPM, TATO, ROI, and ROE values that are above the sector average. Conversely, PT Kimia Farma Tbk. and PT Phapros Tbk. showed the weakest performance, as seen from their negative NPM, ROI, and ROE values and high leverage (Equity Multiplier). The average Net Profit Margin (NPM) of 8.37% indicates that, in general, pharmaceutical companies are still able to generate net profits from their sales activities. However, this level of profitability is not optimal when compared to the characteristics of the pharmaceutical industry, which has high margin potential, indicating that there was considerable pressure from operating costs and market competition during the research period. In terms of asset utilization efficiency, the average Total Asset Turnover (TATO) value of 0.76 indicates that pharmaceutical companies are not yet fully efficient in utilizing their assets to generate sales. This relatively low TATO value indicates that some of the company's assets are not being used to their full potential or that there is a significant accumulation of fixed assets and inventory. This condition has the potential to reduce the company's ability to increase revenue sustainably if it is not balanced with a strategy to increase sales and optimize assets. The interaction between profitability and asset efficiency is reflected in the average Return on Investment (ROI) of 8.09%. This value indicates that the pharmaceutical industry's ability to generate profits from its total assets is still at a reasonable level, but does not yet show outstanding performance. Low asset efficiency is a limiting factor in increasing ROI, although in general companies are still able to maintain positive profit margins.

From a capital structure perspective, the average Equity Multiplier (EM) value of 1.79 indicates that pharmaceutical companies generally use debt-based financing to a significant extent. The use of leverage can provide opportunities to increase equity returns, but on the other hand, it also increases the company's financial risk. This relatively moderate level of leverage reflects the company's efforts to balance funding needs and risk control during the research period. The average Return on Equity (ROE) for the pharmaceutical sector is 9.28%, indicating that pharmaceutical companies are still able to provide positive returns to shareholders. However, this return is not yet optimal and shows that the increase in ROE is influenced more by the use of leverage than by increased profitability and operational efficiency. This indicates that the quality of equity returns still needs to be improved through operational performance improvements. The results of the Du Pont System analysis based on industry averages show that the performance of the pharmaceutical sector during the 2020-2024 period is fairly stable, but not yet optimal. Future industry performance improvements need to focus on strategies to increase asset utilization efficiency and strengthen operational profitability, rather than

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solely through increased leverage. Thus, pharmaceutical companies are expected to be able to generate healthier and more sustainable financial performance growth.

V. Conclusion

Based on the Du Pont System analysis of seven pharmaceutical companies listed on the Indonesia Stock Exchange during the 2020 - 2024 period, it can be concluded that the financial performance of the national pharmaceutical industry exhibits significant disparities across firms. These differences are evident in terms of profitability, asset efficiency, leverage levels, and the ability to generate returns for shareholders. The findings indicate that the Indonesian pharmaceutical industry remains in a relatively sound financial condition. However, substantial performance variations among companies suggest differences in operational strategies, cost control capabilities, asset utilization efficiency, and capital structure policies. The results further demonstrate that the synergy between profitability and operational effectiveness plays a critical role in determining the success of pharmaceutical firms. In interpreting the results of this study, several limitations should be considered. First, the data used are entirely derived from historical annual financial statements, which reflect past conditions and may not fully represent current or future performance. Second, as the analysis relies on only five ratios from the Du Pont System, it does not provide a comprehensive assessment of corporate liquidity, solvency, growth potential, or risk exposure. Third, the study does not incorporate external factors such as macroeconomic conditions, government regulations, or structural changes within the pharmaceutical industry that may influence business performance. Fourth, disparities in firm size may lead to imbalances in ratio comparisons across companies. Finally, the financial ratios employed do not distinguish between operating and non-operating activities; as a result, certain ratio values may not fully capture overall operational performance. This study provides valuable insights for investors and financial analysts by highlighting that not all pharmaceutical companies possess the same level of fundamental quality. A high return on equity (ROE) indicates attractive investment potential, whereas negative ROE signals higher financial risk. Through the Du Pont–based analysis, investors can better identify the primary sources of weak performance, whether arising from leverage, asset efficiency, or profitability issues. The findings also suggest that pharmaceutical companies exhibiting high leverage combined with negative performance require greater attention from regulators and policymakers. Prolonged financial distress within such firms may pose risks to the stability of the healthcare industry and potentially disrupt the domestic supply of essential health-related products.

References

Abadiyah, F. (2024). Pengaruh Kinerja Keuangan dengan Pendekatan Dupont System terhadap Return Saham Perusahaan Asuransi di Indonesia dengan ROE Dupont sebagai Variabel Moderasi. Nominal: Barometer Riset Akuntansi dan Manajemen, 13(2), 144–158. https://doi.org/10.21831/nominal.v13i2.63248

Apriliani, D., Nurdin, A. A., & Danisworo, D. S. (2021). Evaluasi Performa Keuangan dengan Du Pont System dan EVA PT Matahari Putra Prima Tbk. Indonesian Journal of Economics and Management, 1(3), 499–509. https://doi.org/10.35313/ijem.v1i3.2971

Ardita, V. Y., Surakarta, U. M., Irawati, Z., Surakalrta, U. M., & Irawati, Z. (2025). Du Pont System Analisys In Measuring Finacial Performance Of Mice Industry Companies In Indonesia (A Case Study On PT Dyandra Media International Tbk For The 2019—2023 Period). 8(1).

Brigham, E. F., & Houston, J. F. (2019). Fundamentals of financial management (15e ed.). Cengage.

Dwiansyah, F. N. (2025). Analisis Kinerja Keuangan Perusahaan Minyak Dengan Menggunakan Du Pont System Pada PT Pertamina. 21(1).

Fadhillah, S., Harahap, R. D., & Kusmilawaty, K. (2024). Analisis Kinerja Keuangan Perusahaan Dengan Menggunakan Du Pont System dan Common Size Pada PT. Sujin Ray Indonesia. Jurnal Proaksi, 11(2), 382–398. https://doi.org/10.32534/jpk.v11i2.5753

Fahri Al Pasha, Muhammad Fauzan, & Zainal Arifin. (2023). Analisis Kinerja Keuangan Dengan Menggunakan Du Pont System Pada PT Kalbe Farma Tbk Periode 2018—2022. JURNAL ANALISIS MANAJEMEN, 9(1), 8–23. https://doi.org/10.32520/jam.v9i1.2746

Fitriyani, S. I., Kusumaningtyas, D. S., & Supraptiningsih, J. D. (2025). Assessment Of Financial Performance Of Food And Beverage Companies In Indonesia With The Du Pont System Method. Islamic Economic, Accounting, and Management Journal (Tsarwatica), 7(1), 84–93.

Gaurav Sharma. (2025). Assessing the Various Components of the Dupont Model in the Financial Performance of the Indian Pharmaceutical Industry. Journal of Informatics Education and Research, 5(1). https://doi.org/10.52783/jier.v5i1.2177

Guan, Z. (2024). Analysis of Pfizer Profitability Based on Dupont Analysis Method. Advances in Economics, Management and Political Sciences, 44(1), 245–252. https://doi.org/10.54254/2754-1169/44/20231506

Hasrul Hasrul, Agung Widhi Kurniawan, Romansyah Sahabuddin, Uhud Darmawan Natsir, & Nurman Nurman. (2025). Analisis Kinerja Keuangan dengan Menggunakan Metode Du Pont System pada PT HM Sampoerna Tbk Periode 2020-2022. Jurnal Publikasi Manajemen Informatika, 3(3), 346–357. https://doi.org/10.55606/jupumi.v3i3.3810

Jiang, J. (2023). Application of Dupont-factor analysis to financial performance and market measurement of the southeast Asian hotel industry. International Journal of Applied Economics, Finance and Accounting, 17(1), 127–134. https://doi.org/10.33094/ijaefa.v17i1.1089

Junaedy, J., & Pattiasina, V. (2023). Analysis of Financial Performance at PT Semen Indonesia (Persero), Tbk Listed on the Indonesia Stock Exchange. Golden Ratio of Finance Management, 3(1), 35–44. https://doi.org/10.52970/grfm.v3i1.311

Kusumaningtyas, D. S., Yanti, N. D., & Supraptiningsih, J. D. (2025). Evalusi KInerja Keuangan Menggunakan Metode DuPont Analysis. 13(1).

Lubis, P. K. D., Firmansyah, D., & Situmorang, E. (2025). Analysis of Company Financial Performance with Du Pont Analysis at PT. Phapros Tbk. 2018-2023. Eka Prasetya Journal of Management Studies, 11(2), 214–224. https://doi.org/10.47663/jmbep.v11i2

Oktaviani, A. R., Sentosa, N. A., Rostiani, Y., & Rustiadi, R. (2023). Analisis Kinerja Keuangan Menggunakan Analisis Dupont Sistem (Studi Empiris Pada PT Sumber Alfaria Trijaya Tbk Periode 2019-2022). Dirgamaya: Jurnal Manajemen dan Sistem Informasi, 3(1), 41–52. https://doi.org/10.35969/dirgamaya.v3i1.317

Prasetiyo, O. F., & Isnuwardiati, K. (2022). Perbandingan Kinerja Keuangan Perusahaan Manufactur Dengan Metode Du Pont Saat Pra Dan Saat Pandemi Covid-19. Publik: Jurnal Manajemen Sumber Daya Manusia, Administrasi dan Pelayanan Publik, 9(2), 220–230. https://doi.org/10.37606/publik.v9i2.335

Prasetya, H., & Azizah, N. (2025). Analisis Kinerja Keuangan Perusahaan Didasarkan Pada Du Pont System. 09(01).

Rabbani, R. A., Yasmin, A., Nurita, D., & Lestari, L. (2023). Analisis kinerja keuangan PT Kereta Api Indonesia (Persero) dengan metode DuPont system. Implementasi Manajemen & Kewirausahaan, 3(1), 59–75. https://doi.org/10.38156/imka.v3i1.173

Resmawan, Y., Sundarta, M. I., & Azis, A. D. (2023). Analysis of Financial Performance Growth Using the Du Pont System at PT. Astra Agro Lestari Tbk. Jurnal HARMONI: Jurnal Akuntansi Dan Keuangan, 2(1), 60–66. https://doi.org/10.32832/jharmoni.v2i1.14874

Sudiyono, R. N., Oktarina, T., & Hartati, R. (2025). Analisis Du Pont System Untuk Menilai Kinerja Keuangan Perusahaan Pada Sektor Farmasi Yang Terdaftar Di Bursa Efek Indonesia. 7.

ISSN [Online]: 2776-6780

Supriyanto, J. (2021). Evaluasi Kinerja Keuangan Perusahaan Dengan Menggunakan Metode Sistem Du Pont: Studi Pada PT Tracon Industri Periode Tahun 2017 – 2019. Jurnal Pajak dan Keuangan Negara (PKN), 2(2), 142–149. https://doi.org/10.31092/jpkn.v2i2.1126

Suyudi, M., & Novifa, R. I. (2024). Analisis Komparatif Kinerja Keuangan Perusahaan Sub Sektor Kosmetik Dan Barang Keperluan Rumah Tangga Terdaftar Di BEI Menggunakan Du Pont System. 20(1).

Wahida Basri, N., Rum, M., & Rustam, A. (2024). Comparison of Financial Performance in Pharmaceutical Industry Companies. Golden Ratio of Finance Management, 4(2), 226–241. https://doi.org/10.52970/grfm.v4i2.459

Widowati, T., & N.Masdjojo, G. (2025). Evaluasi Kinerja Keuangan Badan Layanan Umum Daerah. JURNAL LITBANG KOTA PEKALONGAN, 23(1), 27–37. https://doi.org/10.54911/litbang.v23i1.1033

Windi Ayuningtyas, Yesha Fatikah Sari, Kinanti Aulia, & Noni Gloria Yataluan. (2025). Analisis Du Pont System untuk Menilai Kinerja Keuangan PT Mayora Indah Tbk. Jurnal Penelitian Ilmu Ekonomi dan Keuangan Syariah, 3(3), 46–56. https://doi.org/10.59059/jupiekes.v3i3.2574