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Analysis of Financial Performance Assessment Based on The Du Pont System on Pharmaceutical Industry Companies

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Abstract. The study aims to analyze the financial performance of the pharmaceutical industry companies listed on the Indonesian Stock Exchange using the Du Pont System approach with Time Series Approach (TSA) and Cross-Sectional Approaching (CSA) through the return on investment (ROI) and return on equity (ROE) ratio during the period 2018-2022. The results showed that the company. Darya Varia Laboratory Tbk. average 0.55% lower than the industry average that is 0.69% said to perform Less Good, PT. Indofarma Tbk. with an average value of 1.23% greater than the industrial average is said to perform well, PT. Kalbe Farma Tbk. average 0.35% lower than the industry average that is 0.69% said to perform Less Good, PT. Merck Tbk. with an average value of 0.78% greater than the industry average is said to perform well, PT. Phapros Tbk. average 0.64% lower than the industry average is 0.69% said to perform Less Good, PT. Pyridam Farma Tbk. with an average value of 0.79% greater than the industrial average is said to perform well, PT. Soho Global Health Tbk. with an average value of 0.78% greater than the industry average is said to perform well, PT. Jamu and Pharmaceutical Industry Side Appears Tbk. average 0.58% lower than the industry average which is 0.69% said to perform Less Good, PT. The pace of Pacific Scan Tbk. average 0.59% lower than the industry average that is 0.69% said to perform Less Good, using the Return On Investment (ROI) and Return on Equity (ROE) analysis with Time Series Approach (TSA) in the period 2018 - 2022 experienced a decline and fluctuation.

Keywords: Financial Performance, Du Pont System with Time Series Approach method, Du Pont System with Cross-Sectional Approach method

A. INTRODUCTION

Pharmaceutical companies are an important part of the healthcare sector and play an important role in the provision of Health products and services to the public. In a highly competitive and growing industry like pharmaceuticals, measuring financial performance is an important step to evaluate financial health, operational efficiency, and the ability to generate sustainable profits.

The business world is increasingly competitive, and company management must be able to cope with change and innovate while maintaining its financial performance. In addition, looking at the financial performance of an organization can be used to find weak points and shortcomings that are still available for improvement. The company's financial statements published annually show the development of the company's financial performance. Types of financial statements such as profit and loss, statement of financial position (balance sheet) and cash flow statement actually provide an overview of overall business conditions, but the depth of information is lacking because it is broad and general.

To find out the company's financial condition, existing financial statements must be analyzed. One approach used in measuring financial performance is Dupont System analysis. One relevant financial performance measurement tool is the approach with Dupont System Financial Analysis. Lianto (2013) states that Dupont System analysis, which is an analysis that combines activity ratios and equity ratios, can be used to calculate Return Of Investment (ROI) and Return Of Equity (ROE). By analyzing the relative contribution of each of these components to ROE and ROI, this study will provide an in-depth understanding of the factors affecting the financial performance of pharmaceutical companies during the period 2018-2022.

In addition, this study will analyze the financial data of pharmaceutical companies with two approaches: Time Series Approach (TSA) and Cross Sectional Approach (CSA). The TSA's approach will allow researchers to look at trends and patterns in pharmaceutical companies' financial performance from 2018 to 2022. By looking at historical data, the study will find changes and improvements in financial performance over the period.

The CSA approach, on the other hand, will compare financial performance between several pharmaceutical companies in the same year, i.e. 2018 to 2022. By comparing the relative performance of these companies, the study will provide an understanding of the competitive position and relative performance of pharmaceutical companies in the industry during the period.

The object of research was carried out on a public listed company engaged in pharmaceuticals in Indonesia that was listed on the Indonesia Stock Exchange in 2018-2022.

The du pont system can help the analysis to see how the company's decisions and activities throughout the accounting period are measured by financial ratios. Return on equity using this system

Analysis can evaluate changes in the condition and performance of the company, whether there is improvement or worsening or both. (Fraser & Ormiston, 2004). From this background, the author took the title "Analysis Of Financial Performance Assessment Based On The Du Pont System Using The Time Series Approach (Tsa) And Cross-Sectional Approach (Csa) Methods (Case Study of Pharmaceutical Industry Companies Listed on the Indonesia Stock Exchange Period 2018 – 2022)"

B. LITERATURE REVIEW

Financial Performance

Financial performance is an analysis carried out over a certain period of time to measure the company's financial condition using appropriate financial implementation rules (Winarni and Sugiyarso, 2005: 111). The concept of financial performance involves evaluating a company's ability to generate profits, efficient use of resources, revenue growth, and financial risk management.

According to Sucipto (2003) said financial performance is the determination of a certain measure. Financial performance can be measured by analyzing and evaluating the company's financial statements. In the context of this study, the financial performance of pharmaceutical companies will focus on factors that affect ROE, ROI and components of the Dupont System.

Financial Ratio Analysis

Financial ratio analysis is an analytical method to determine the relationship of certain items in the balance sheet or income statement individually or a combination of the two reports (Munawir, 2007: 37). Financial ratio analysis aims to:

1. As a process of assessing the level of financial health of the company
2. Assess the performance of the company and the Company's Finance,
3. Know the Company's Value

Financial ratio analysis is used to see the company's prospects and risks in the future. The prospect factor in the ratio will affect investor expectations of the company in the future (Hanafi, 2003: 75).

Comparison Method of Financial Ratio Analysis

1. Cross-Sectional Approach (CSA)

The Cross Sectional approach compares financial performance between multiple companies at one particular point in time. In this study, CSA will be used to compare the financial performance of pharmaceutical companies in the same year in the period 2018-2022. This approach provides an understanding of the relative position and comparison of pharmaceutical companies' performance within the industry.

2. Time Series Approach (TSA)

The Time Series approach studies trends and patterns of a company's financial performance over time. In this study, TSA will be used to analyze financial data of pharmaceutical companies during the period 2018-2022. This approach allows researchers to identify changes and growth in a company's financial performance over time.

Du Pont System

According to Weston & Copeland (1989), financial analysis using the Du Pont System combines the ratio of activity and profit margin to sales, and how these ratios interact with each other in determining the profitability of assets. The Dupont System is a financial analysis framework that breaks down Return on Equity (ROE) and Return on Investment (ROI) into key components, such as profitability, operational efficiency, and financial leverage. This provides a deeper understanding of the factors that affect the profitability and efficiency of the company.

The Du Pont system can be used to see the extent of a company's effectiveness in the return on investment made by the company (ROE and ROI).

1. Advantages of Du Pont System

- a. As one of the financial analysis techniques that is comprehensive and management can determine the level of efficiency of asset utilization.
- b. Can be used to measure the profitability of each product produced by the company so that it is known which products are potential.
- c. In analyzing financial statements using a more integrated approach and using financial statements as an element of analysis (Harahap, 2004: 333).

2. Weaknesses of Du Pont System

- a. The ROI of a company is difficult to compare with the ROI of other similar companies, because of differences in accounting practices used.
- b. Using ROI alone will not be used to make comparisons between two or more problems by getting satisfactory conclusions (Harahap, 2004: 341).

3. Ratios used in the Du Pont System

a. Profitability Ratio

The profitability ratio measures the effectiveness of overall management through profits obtained in relation to sales and investment (Fahmi, 2012: 68).

1) ROI (Return On Investment) atau ROA (Return On Assets)

ROI shows the company's ability to generate profits from the assets used (Sartono, 2011: 123).

2) ROE (Return On Equity)

ROE aims to measure the company's ability to obtain profits available to the company's shareholders" (Sartono, 2011: 124).

3) Net Profit Margin

Net profit margin knows profitability after all income and expenses, including interest items, are taxes considered (Fraser and Ormitson, 2008:237).

b. Activity Ratio

"The activity ratio is a ratio used to measure the effectiveness of the company in using its assets" (Kasmir, 2014: 172)

Total Asset Turnover

Total asset turnover ratio measures the efficiency of company asset management (Brigham and Houston, 2009: 100)

4. Formula Du Pont System

By looking at the Du Pont System formula, analysts can identify strengths and weaknesses and find out the causes of problems in financial condition and overall company performance. ROI (Return On Investment) is generated from profit margin multiplied by total asset turnover. The first three ratios show that ROI (profit generated from total investment in assets) is the result of net profit margin (profit generated from sales) and total asset turnover (a company's ability to generate sales from its assets). If the ROI is multiplied by the Equity Multiplier, ROE will be generated.

According to the analysis of the remaining three ratios, ROE (overall return or reward to shareholders or owners of the company) comes from ROI products and financial leverage. Using this system, the Company will have the ability to assess changes in the company's performance. These changes can indicate an increase, decrease, or a

combination of both. Furthermore, the evaluation can be focused on specific areas that contribute to change (Fraser and Ormiston, 2008: 253).

$$\text{ROE Du Pond} = (\text{Net Profit Margin}) \times (\text{Total Asset Turnover}) \times (\text{Multiplier Equity})$$

$$\begin{aligned} \text{ROE Du Pond} &= (\text{Net Profit Margin}) \times (\text{Total Asset Turnover}) \times (\text{Multiplier Equity}) \\ &= \frac{\text{Earning After Tax}}{\text{Total Sales}} \times \frac{\text{Total Sales}}{\text{Total Asset}} \times \frac{\text{Total Asset}}{\text{Total Equity}} \end{aligned}$$

Source: Atmaja (2008:419)

Variabel Operasional :

<i>Variabel</i>	<i>Rasio</i>	<i>Measurement</i>
Total Asset Turnover	TATO	$\text{TATO} = \frac{\text{Sales}}{\text{Total Asset}}$
Net Profit Margin	NPM	$\text{NPM} = \frac{\text{EAT}}{\text{Total Asset}}$
Multiplier Equity Ratio	MER	$\text{MER} = \frac{\text{Total Asset}}{\text{Total Equity}}$
Return On Investment Du Pond	ROI-DP	$\text{ROI-DP} = \text{TATO} \times \text{NPM}$
Return On Equity Du Pond	ROE-DP	$\text{ROE-DP} = \text{ROI-DP} \times \text{MER}$

C. RESEARCH METHODOLOGY

This type of research is descriptive research with a quantitative approach.

The focus of the research is:

1. Du Pont System

Researchers only conduct financial statement research from the period 2018-2022 Companies in the Pharmaceutical Industry in Indonesia Listed on the Indonesia Stock Exchange which will be calculated in the Du Pont approach

Systems where the ratios used include:

a. Profitability Ratio

b. Activity Ratio

Perform Du Pont System calculations by calculating:

a. Return On Investment (ROI)

b. Return On Equity (ROE) with Multiplier Equity

2. Financial Performance

After analyzing the Du Pont System and RI approach, then make conclusions using the Cross sectional approach and Time Series Analysis methods, so that from this conclusion can be known the company's financial performance.

Population and sample in this study on the Indonesia Stock Exchange for the period 2018-2022 The population in this study is Companies in the Pharmaceutical Industry in Indonesia Listed on the Indonesia Stock Exchange for the period 2018-2022 and www.idx.co.id internet sites.

Research Samples as follows:

No.	Kode	Perusahaan Farmasi di Indonesia
1	DVLA	PT. Darya Varia Laboratorium Tbk.
2	INAF	PT. Indofarma Tbk.
3	KAEF	PT. Kimia Farma Tbk.
4	KLBF	PT. Kalbe farma Tbk.
5	MERK	PT. Merck Tbk.
6	PEHA	PT. Phapros Tbk.
7	PYFA	PT. Pyridam Farma Tbk.
8	SOHO	PT. Soho Global Health Tbk.
9	SIDO	PT. Industri Jamu dan Farmasi Sido Muncul Tbk.
10	TSPC	PT. Tempo Scan Pacifik Tbk.

Source: Indonesia Stock Exchange (2023)

D. RESULTS AND DISCUSSION

1. Data Analysis and Interpretation by Time Series Approach (TSA)

Financial Performance of the company and assessment Analysis and interpretation of data in Time Series Pharmaceutical Industry Companies listed on the Indonesia Stock Exchange (IDX). Time Series Approach is a method to determine the state of each research variable studied during a certain period of time.

Company performance criteria:

1. Performance is said to be good if:
Company Average > Industry Average
2. Performance is said to be not good if:
Company Average < Industry Average

a) Financial Performance of Du Pont System Method PT. Darya Varia Laboratory Tbk.

Table 1.1 : Recapitulation of Financial Ratios of PT. Darya Varia Laboratory Tbk. Period 2018-2022

Variabel	periode					Rata-Rata Perusahaan %
	2018	2019	2020	2021	2022	
NPM	0,12	0,12	0,09	0,08	0,08	0,10
TATO	1,01	0,99	0,92	0,91	0,95	0,96
MER	1,40	1,40	1,50	1,50	1,43	1,45
ROI	0,12	0,12	0,08	0,07	0,07	0,09
ROE	0,17	0,17	0,12	0,11	0,11	0,13
Rata-rata Industri	0,56	0,56	0,54	0,53	0,53	0,55

Based on the recapitulation table above, the Financial Ratio of PT Darya Varia Laboratorium Tbk. for the 2018-2022 period shows that the Profitability ratio shows that the company's condition is not good because the average NPM value of 0.10% and ROI of 0.09% is still below the industry average of 0.55%. The MER score of 1.45% is better than the industry average. Thus, the company is still unable to maximize profits, assets and capital. Judging from the activity ratio shows that the company's health is good, because the average TATO value is 0.96 times greater than the industry average, which means the company has used its assets to generate profits.

b) Financial Performance of Du Pont System Method PT. Indofarma Tbk.

Table 1.2 : Recapitulation of Financial Ratios of PT. Indofarma Tbk. Period 2018-2022

Variabel	periode					Rata-Rata Perusahaan %
	2018	2019	2020	2021	2022	
NPM	-0,02	0,01	0,00	-0,01	-0,37	-0,08
TATO	1,10	0,98	1,00	1,44	0,75	1,06
MER	2,90	2,74	3,98	3,96	17,77	6,27
ROI	-0,02	0,01	0,00	-0,02	-0,28	-0,06
ROE	-0,07	0,02	0,00	-0,07	-4,96	-1,02
Rata-rata Industri	0,78	0,75	1,00	1,06	2,58	1,23

Based on the recapitulation table above, the Financial Ratio of PT. Indofarma Tbk. for the 2018-2022 period was not good because the average NPM value of -0.08% and ROI of -0.06% was still below the industry average value of 1.23% because the company suffered losses so that it was negative. In contrast to the MER value of 6.27% better than the industry average. Thus, the company is still unable to maximize profits, assets and capital. Judging from the activity ratio, it shows that the company's health is not good, because the average TATO value of 1.06 is below the industry average, which means that the company has not used its assets to generate profits.

c) Financial Performance of Du Pont System Method PT. Kimia Farma Tbk.

Table 1.3 : Recapitulation of Financial Ratios of PT. Kimia Farma Tbk. Period 2018-2022

Variabel	periode					Rata-Rata Perusahaan %
	2018	2019	2020	2021	2022	
NPM	0,06	0,00	0,00	0,02	-0,01	0,02
TATO	0,75	0,51	0,57	0,72	0,47	0,60
MER	2,73	2,48	2,47	2,46	2,18	2,46
ROI	0,05	0,00	0,00	0,02	0,00	0,01
ROE	0,13	0,00	0,00	0,04	-0,01	0,03
Rata-rata Industri	0,74	0,60	0,61	0,65	0,53	0,63

Based on the recapitulation table above, the Financial Ratio of PT. Kimia Farma Tbk. for the 2018-2022 period shows that the Profitability ratio shows that the company's condition is not good because the average NPM value of 0.02% and ROI of 0.01% is still below the industry average value of 0.63%. The MER score of 2.46% is better than the industry average. Thus, the company is still unable to maximize profits, assets and capital. Judging from the activity ratio, it shows that the company's health is not good, because the average TATO value is 0.60 times below the industry average, which means that the company has not used its assets to generate profits.

d) Financial Performance of Du Pont System Method PT. Kalbe Farma Tbk.

Table 1.4 : Recapitulation of Financial Ratios of PT. Kalbe FarmaTbk. Period 2018-2022

Variabel	periode					Rata-Rata Perusahaan %
	2018	2019	2020	2021	2022	
NPM	0,12	0,11	0,12	0,12	0,12	0,12
TATO	0,12	0,11	0,12	0,12	0,12	0,12
MER	1,19	1,21	1,23	1,21	1,23	1,21
ROI	0,14	0,13	0,12	0,13	0,13	0,13
ROE	0,16	0,15	0,15	0,15	0,16	0,16
Rata-rata Industri	0,34	0,34	0,35	0,35	0,35	0,35

Based on the recapitulation table above, the Financial Ratio of PT. Kalbe Farma Tbk. for the 2018-2022 period shows that the Profitability ratio shows that the company's condition is not good because the average NPM value of 0.12% and ROI of 0.13% is still below the industry average of 0.35%. The MER score of 1.21% is better than the industry average. Thus, the company is still unable to maximize profits, assets and capital. Judging from the activity ratio, it shows that the company's health is not good, because the average TATO value is 0.12 times below the industry average, which means that the company has not used its assets to generate profits.

e) Financial Performance of Du Pont System Method PT. Merck Tbk.

Table 1.5 : Recapitulation of Financial Ratios of PT. Merck Tbk. Period 2018-2022

Variabel	periode					Rata-Rata Perusahaan %
	2018	2019	2020	2021	2022	
NPM	1,90	0,11	0,11	0,12	0,21	0,49
TATO	0,48	0,83	0,71	1,04	1,08	0,83
MER	2,44	1,52	1,52	1,50	1,37	1,67
ROI	0,92	0,09	0,08	0,13	0,23	0,29
ROE	2,24	0,13	0,12	0,19	0,32	0,60
Rata-rata Industri	1,60	0,53	0,51	0,60	0,64	0,78

Based on the recapitulation table above, the Financial Ratio of PT. Merck Tbk. for the 2018-2022 period saw that the Profitability ratio showed that the company's condition was not good because the average NPM value of 0.49% and ROI of 0.29% was still below the industry average of 0.78%. The MER score of 1.67% is better than the industry average. Thus, the company is still unable to maximize profits, assets and capital. Judging from the activity ratio, it shows that the company's health is not good, because the average TATO value is 0.83 times above the industry average, which means the company has used its assets to generate profits.

f) Financial Performance of Du Pont System Method PT. Phapros Tbk.

Table 1.6 : Recapitulation of Financial Ratios of PT. Phapros Tbk. Period 2018-2022

Variabel	periode					Rata-Rata Perusahaan %
	2018	2019	2020	2021	2022	
NPM	0,13	0,09	0,05	0,01	0,02	0,06
TATO	0,55	0,53	0,51	0,57	0,65	0,56
MER	2,37	2,55	2,59	2,48	2,34	2,47
ROI	0,07	0,05	0,03	0,01	0,02	0,03
ROE	0,17	0,12	0,07	0,02	0,04	0,08
Rata-rata Industri	0,66	0,67	0,65	0,62	0,61	0,64

Based on the recapitulation table above, the Financial Ratio of PT. Phapros Tbk. for the 2018-2022 period shows that the Profitability ratio shows that the company's condition is not good because the average NPM value of 0.06% and ROI of 0.03% is still below the industry average of 0.64%. The MER score of 2.47% is better than the industry average. Thus, the company is still unable to maximize profits, assets and capital. Judging from the activity ratio, it shows that the company's health is not good, because the average TATO value is 0.56 times below the industry average, which means that the company has not used its assets to generate profits.

g) Financial Performance of Du Pont System Method PT. Pyridam Farma Tbk.

Table 1.7 : Recapitulation of Financial Ratios of PT. Pyridam Farma Tbk. Period 2018-2022

Variabel	periode					Rata- Rata Perusahaan %
	2018	2019	2020	2021	2022	
NPM	0,03	0,04	0,08	0,01	0,39	0,11
TATO	1,34	1,30	1,21	0,78	0,47	1,02
MER	1,57	1,53	1,45	4,82	3,44	2,56
ROI	0,05	0,05	0,10	0,01	0,18	0,08
ROE	0,07	0,07	0,14	0,03	0,62	0,19
Rata-rata Industri	0,61	0,60	0,60	1,13	1,02	0,79

Based on the recapitulation table above, the Financial Ratio of PT. Pyridam Farma Tbk. for the 2018-2022 period shows that the Profitability ratio shows that the company's condition is not good because the average NPM value of 0.11% and ROI of 0.08% is still below the industry average of 0.79%. The MER score of 2.56% is better than the industry average. Thus, the company is still unable to maximize profits, assets and capital. Judging from the activity ratio shows that the company's health is good, because the average TATO value is 1.02 times greater than the industry average value, which means the company has used its assets to generate profits.

h) Financial Performance of Du Pont System Method PT. Soho Global Health Tbk.

Table 1.8 : Recapitulation of Financial Ratios of PT. Soho Global Health Tbk. Period 2018-2022

Variabel	periode					Rata- Rata Perusahaan %
	2018	2019	2020	2021	2022	
NPM	0,01	0,02	0,03	0,08	0,05	0,04
TATO	1,64	1,54	1,47	1,76	1,63	1,61
MER	2,31	2,49	1,89	1,82	1,84	2,07
ROI	0,02	0,04	0,04	0,14	0,08	0,06
ROE	0,04	0,09	0,08	0,25	0,15	0,12
Rata-rata Industri	0,80	0,84	0,70	0,81	0,75	0,78

Based on the recapitulation table above, the Financial Ratio of PT. Soho Global Health Tbk. for the 2018-2022 period shows that the Profitability ratio shows an unfavorable company condition because the average NPM value of 0.04% and ROI of 0.06% is still below the industry average value of 0.78%. The MER score of 2.07% is better than the industry average. Thus, the company is still unable to maximize profits, assets and capital. Judging from the activity ratio shows that the company's health is good, because the average TATO value is 1.61 times greater than the industry average value, which means the company has used its assets to generate profits.

i) Financial Performance of Du Pont System Method PT. Herbal and Pharmaceutical Industry Sido Muncul Tbk.

Table 1.9 : Recapitulation of Financial Ratios of PT. Sido Muncul Tbk. Herbal and Pharmaceutical Industry Period 2018-2022

Variabel	periode					Rata- Rata Perusahaan %
	2018	2019	2020	2021	2022	
NPM	0,24	0,26	0,28	0,31	0,29	0,28
TATO	0,83	0,87	0,87	0,99	0,95	0,90
MER	1,15	1,15	1,19	1,17	1,16	1,17
ROI	0,20	0,23	0,24	0,31	0,27	0,25
ROE	0,23	0,26	0,29	0,36	0,32	0,29
Rata-rata Industri	0,53	0,56	0,57	0,63	0,60	0,58

Based on the recapitulation table above, the Financial Ratio of PT. Sido Muncul Tbk.'s Herbal and Pharmaceutical Industry for the 2018-2022 period shows that the Profitability ratio shows that the company's condition is not good because the average NPM value of 0.28% and ROI of 0.25% is still below the industry average of 0.58%. The MER score of 1.17% is better than the industry average. Thus, the company is still unable to maximize profits, assets and capital. Judging from the activity ratio shows that the company's health is good, because the average TATO value is 0.90 times greater than the industry average value, which means the company has used its assets to generate profits.

j) Financial Performance of Du Pont System Method PT. Tempo Scan Pacific Tbk.

Table 1.10 : Recapitulation of Financial Ratios of PT. Tempo Scan Pacific Tbk. Period 2018-2022

Variabel	periode					Rata-Rata Perusahaan %
	2018	2019	2020	2021	2022	
NPM	0,05	0,05	0,08	0,08	0,08	0,07
TATO	1,28	1,31	1,20	1,16	1,08	1,21
MER	1,45	1,45	1,43	1,40	1,50	1,45
ROI	0,07	0,07	0,09	0,09	0,09	0,08
ROE	0,10	0,10	0,13	0,13	0,14	0,12
Rata-rata Industri	0,59	0,60	0,59	0,57	0,58	0,59

Based on the recapitulation table above, the Financial Ratio of PT. Tempo Scan Pacific Tbk. for the 2018-2022 period shows that the Profitability ratio shows that the company's condition is not good because the average NPM value of 0.07% and ROI of 0.08% is still below the industry average of 0.59%. The MER score of 1.45% is better than the industry average. Thus, the company is still unable to maximize profits, assets and capital. Judging from the activity ratio shows that the company's health is good, because the average tattoo value is 1.21 times greater than the industry average value, which means the company has used its assets to generate profits.

2. Cross-Sectional Approach (CSA) Data Analysis and Interpretation

Financial Performance is based on evaluation, analysis and interpretation of data Cross-sectional approach for Pharmaceutical Industry Companies listed on the IDX. Cross Sectional Approach is an evaluation method that compares the relationship of a company with other similar companies. What is meant by similar companies is the similarity of financial characteristics. So this approach is about figuring out how well or badly a company is performing compared to other types of companies. Company performance criteria:

- Performance is said to be good if:
- Company Average > Industry Average
- Performance is said to be not good if:
- Company Average < Industry Average

a) Net Profit Margin (NPM) with Du Pont System Approach Pharmaceutical Industry Companies listed on IDX

Net Profit Margin is a profitability ratio used to determine a company's net profit from sales. This ratio can be done by comparing after-interest income and taxes with sales. The following is a recapitulation of the Net Profit Margin (NPM) ratio of Pharmaceutical Industry Companies which can be seen in table 2.1.

Table 2.1 : Recapitulation of NPM Ratio of Pharmaceutical Industry Companies listed on IDX for the period 2018-2022

NO	kode perusahaan	Net Profit Margin (NPM) %					rata-rata
		2018	2019	2020	2021	2022	
1	PT. Darya Varia Laboratorium Tbk.	0,12	0,12	0,09	0,08	0,08	0,10
2	PT. Indofarma Tbk.	0,02	0,01	0,00	0,01	0,37	-0,08
3	PT. Kimia Farma Tbk.	0,06	0,00	0,00	0,02	0,01	0,02
4	PT. Kalbe Farma Tbk.	0,12	0,11	0,12	0,12	0,12	0,12
5	PT. Merck Tbk.	1,90	0,11	0,11	0,12	0,21	0,49
6	PT. Phapros Tbk.	0,13	0,09	0,05	0,01	0,02	0,06
7	PT. Pyridam Farma Tbk.	0,03	0,04	0,08	0,01	0,39	0,11
8	PT. Soho Global Health Tbk.	0,01	0,02	0,03	0,08	0,05	0,04
9	PT. Industri Jamu dan Farmasi Sido Muncul Tbk.	0,24	0,26	0,28	0,31	0,29	0,28
10	PT. Tempo Scan Pacific Tbk.	0,05	0,05	0,08	0,08	0,08	0,07
rata-rata Industri		0,26	0,08	0,08	0,08	0,09	0,12

Based on the description above, the average Net Profit Margin (NPM) value of the Pharmaceutical Industry Companies listed on the IDX experienced fluctuations during the 2018-2022 period and the largest value was in 2018 at 0.26%. This means that that year, the company accurately and optimally generated a net profit on sales. During the period 2018-2021, the average value of the Industry decreased from 0.26% to 0.08% and in 2022 increased by 0.09%. This means that the Company has not effectively invested its capital and shows that the Company is able to generate the return expected by investors on its investment.

b) Total Asset Turn Over (TATO) with Du Pont System Approach Pharmaceutical Industry Company listed on IDX

TATO is the last asset management ratio, which measures the turnover or utilization of all company assets. If the company does not generate sufficient volumes of business relative to the size of the total investment of assets, then sales should be increased. The following is a recapitulation of the Total Asset Turn Over (TATO) Ratio of Pharmaceutical Industry Companies which can be seen in table 2.2.

Table 2.2 : Recapitulation of Tattoo Ratio of Pharmaceutical Industry Companies listed on IDX for the period 2018-2022

No	kode perusahaan	Total Asset Turn Over (TATO)					rata-rata
		2018	2019	2020	2021	2022	
1	PT. Darya Varia Laboratorium Tbk.	1,01	0,99	0,92	0,91	0,95	0,96
2	PT. Indofarma Tbk.	1,10	0,98	1,00	1,44	0,75	1,06
3	PT. Kimia Farma Tbk.	0,75	0,51	0,57	0,72	0,47	0,60
4	PT. Kalbe Farma Tbk.	0,12	0,11	0,12	0,12	0,12	0,12
5	PT. Merck Tbk.	0,48	0,83	0,71	1,04	1,08	0,83
6	PT. Phapros Tbk.	0,55	0,53	0,51	0,57	0,65	0,56
7	PT. Pyridam Farma Tbk.	1,34	1,30	1,21	0,78	0,47	1,02
8	PT. Soho Global Health Tbk.	1,64	1,54	1,47	1,76	1,63	1,61
9	PT. Industri Jamu dan Farmasi Sido Muncul Tbk.	0,83	0,87	0,87	0,99	0,95	0,90
10	PT. Tempo Scan Pacific Tbk.	1,28	1,31	1,20	1,16	1,08	1,21
rata-rata industri		0,91	0,90	0,86	0,95	0,82	0,89

ption above, the average Total Asset Turn Over (TATO) value of the industry of Pharmaceutical Industry Companies Listed on the IDX fluctuates and is below the industry average standard. In 2016 the industry average value was 0.91 times and decreased until 2020 by 0.86 times, in 2021 it increased by 0.95 times and then fell again in 2022 by 0.82 times. This shows that the company has not optimized the assets owned by the company itself. The industry average standard for tattoos is 1.1 times, if it is greater, then it is said that the company is capable of generating enough revenue for the company itself.

c) Multiplier Equity Ratio (MER) with Du Pont System Approach Pharmaceutical Industry Companies listed on the IDX

Multiplier Equity Ratio describes the amount of equity or capital to the company's total assets or the amount of assets financed by debt. The following is a recapitulation of the Multiplier Equity Ratio (MER) ratio of Pharmaceutical Industry Companies which can be seen in table 2.3.

Table 2.3 : Recapitulation of MER Ratio of Pharmaceutical Industry Companies listed on IDX for the period 2018-2022

NO	kode perusahaan	Multiplier Equity Ratio					rata-rata
		2018	2019	2020	2021	2022	
1	PT. Darya Varia Laboratorium Tbk.	1,40	1,40	1,50	1,50	1,43	1,45
2	PT. Indofarma Tbk.	2,90	2,74	3,98	3,96	17,77	6,27
3	PT. Kimia Farma Tbk.	2,73	2,48	2,47	2,46	2,18	2,46
4	PT. Kalbe Farma Tbk.	1,19	1,21	1,23	1,21	1,23	1,21
5	PT. Merck Tbk.	2,44	1,52	1,52	1,50	1,37	1,67

6	PT. Phapros Tbk.	2,37	2,55	2,59	2,48	2,34	2,47
7	PT. Pyridam Farma Tbk.	1,57	1,53	1,45	4,82	3,44	2,56
8	PT. Soho Global Health Tbk.	2,31	2,49	1,89	1,82	1,84	2,07
9	PT. Industri Jamu dan Farmasi Sido Muncul Tbk.	1,15	1,15	1,19	1,17	1,16	1,17
10	PT. Tempo Scan Pacific Tbk.	1,45	1,45	1,43	1,40	1,50	1,45
rata-rata Industri		1,95	1,85	1,93	2,23	3,43	2,28

Based on the description above, the average Multiplier Equity Ratio (MER) of Pharmaceutical Industry Companies Listed on the IDX during the 2018-2022 period the largest value is in 2022, which is 3.43%, this means that the company manages capital to achieve overall profits or profits properly and optimally. And the lowest industry average value in 2018 was 1.95%, this means that the company has not been optimal in capital investment and shows that the company can provide investment returns that are in line with investor expectations.

d) Return On Investment (ROI) with Du Pont System Approach Pharmaceutical Industry Companies listed on IDX

Return On Investment (ROI) measures a company's rate of return on all existing assets. The following is a recapitulation of the Return On Investment (ROI) ratio of Pharmaceutical Industry Companies which can be seen in table 2.4.

Table 2.4 : Recapitulation of DuPont ROI Ratio of Pharmaceutical Industry Companies listed on IDX for the period 2018-2022

NO	kode perusahaan	Return On Investment (ROI)					rata-rata
		2018	2019	2020	2021	2022	
1	PT. Darya Varia Laboratorium Tbk.	0,12	0,12	0,08	0,07	0,07	0,09
2	PT. Indofarma Tbk.	-0,02	0,01	0,00	0,02	0,28	-0,06
3	PT. Kimia Farma Tbk.	0,05	0,00	0,00	0,02	0,00	0,01
4	PT. Kalbe Farma Tbk.	0,14	0,13	0,12	0,13	0,13	0,13
5	PT. Merck Tbk.	0,92	0,09	0,08	0,13	0,23	0,29
6	PT. Phapros Tbk.	0,07	0,05	0,03	0,01	0,02	0,03
7	PT. Pyridam Farma Tbk.	0,05	0,05	0,10	0,01	0,18	0,08
8	PT. Soho Global Health Tbk.	0,02	0,04	0,04	0,14	0,08	0,06
9	PT. Industri Jamu dan Farmasi Sido Muncul Tbk.	0,20	0,23	0,24	0,31	0,27	0,25
10	PT. Tempo Scan Pacific Tbk.	0,07	0,07	0,09	0,09	0,09	0,08
rata-rata industri		0,16	0,08	0,08	0,09	0,08	0,10

Based on the description above, the average Return On Investment (ROI) ratio of

Pharmaceutical Industry Companies Listed on the IDX during the 2018-2022 period was the largest value in 2018 which was 0.16% and the increase in 2019 was 0.09%, this means that the company has the ability to generate overall operating profits, asset management and good company investment activities. While in 2019, 2020, and 2022 experienced a decrease of 0.08%, this shows that the company has not invested its capital effectively and shows that the company can return the invested capital as expected by its investors.

e) Return On Equity (ROE DuPont) with Du Pont System Approach Pharmaceutical Industry Companies listed on IDX

Return On Equity (ROE) aims to measure a company's ability to make profits available to its shareholders. The following is a recapitulation of the Return On Equity (ROE) ratio of Pharmaceutical Industry Companies which can be seen in table 2.5.

Table 2.5 : Recapitulation of DuPont ROE Ratio of Pharmaceutical Industry Companies listed on IDX for the period 2018-2022

NO	kode perusahaan	Return On Equity (ROE Dupont)					rata-rata
		2018	2019	2020	2021	2022	
1	PT. Darya Varia Laboratorium Tbk.	0,17	0,17	0,12	0,11	0,11	0,13
2	PT. Indofarma Tbk.	-0,07	0,02	0,00	0,07	4,96	-1,02
3	PT. Kimia Farma Tbk.	0,13	0,00	0,00	0,04	0,01	0,03
4	PT. Kalbe Farma Tbk.	0,16	0,15	0,15	0,15	0,16	0,16
5	PT. Merck Tbk.	2,24	0,13	0,12	0,19	0,32	0,60
6	PT. Phapros Tbk.	0,17	0,12	0,07	0,02	0,04	0,08
7	PT. Pyridam Farma Tbk.	0,07	0,07	0,14	0,03	0,62	0,19
8	PT. Soho Global Health Tbk.	0,04	0,09	0,08	0,25	0,15	0,12
9	PT. Industri Jamu dan Farmasi Sido Muncul Tbk.	0,23	0,26	0,29	0,36	0,32	0,29
10	PT. Tempo Scan Pacific Tbk.	0,10	0,10	0,13	0,13	0,14	0,12
rata-rata Industri		0,32	0,11	0,11	0,12	0,31	0,07

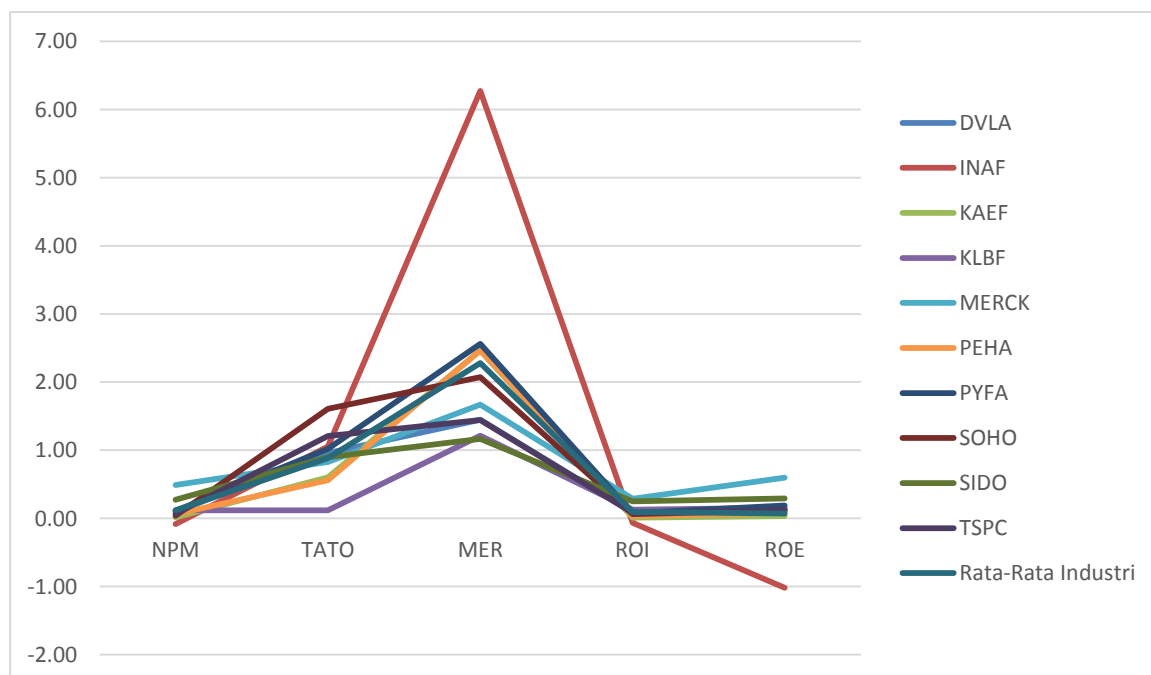
Based on the description above, the average Return On Equity (ROE) ratio of Pharmaceutical Industry Companies Listed on the IDX during the 2018-2022 period fluctuated, the largest value was in 2018 at 0.32%. And the industry average value decreased from 2019 to 2022 by 0.11% to -0.31, but in 2021 it increased by 0.12%, this shows that the company has not invested its capital effectively and shows that the company can return the invested capital as expected by its investors.

3. Du Pont System Analysis of Pharmaceutical Industry Companies for the 2018-2022 Period

Du Pont system analysis is used as a measuring tool in evaluating the company's financial performance, so that management can determine the level of efficiency of asset utilization, it can also be used to measure the profitability of products produced by the company so that it can be known which company's products have the most potential. The following are the results of the Du Pont System Analysis of Pharmaceutical Industry Companies for the 2018-2022 Period *in Time Series Approach* and *Cross Sectional Approach* can be seen in table 3.1

Table 3.1 Du Pont System Analysis in Pharmaceutical Industry Companies

RATIO	Company										Industry Average (%)	Industry Performance
	DVLA	INAF	KAEF	KLBF	MERCK	PEHA	PYFA	SOHO	SIDO	TSPC		
NPM	0,10	-0,08	0,02	0,12	0,49	0,06	0,11	0,04	0,28	0,07	0,12	Not Good
TATO	0,96	1,06	0,60	0,12	0,83	0,56	1,02	1,61	0,90	1,21	0,89	Good
MER	1,45	6,27	2,46	1,21	1,67	2,47	2,56	2,07	1,17	1,45	2,28	Good
ROI	0,09	-0,06	0,01	0,13	0,29	0,03	0,08	0,06	0,25	0,08	0,10	Not Good
ROE	0,13	-1,02	0,03	0,16	0,60	0,08	0,19	0,12	0,29	0,12	0,07	Not Good
Average	0,55	1,23	0,63	0,35	0,78	0,64	0,79	0,78	0,58	0,59	0,69	Good



Source 3.1 Du Pont System Analysis in Pharmaceutical Industry Companies

E. CONCLUSIONS AND SUGGESTIONS

1. Conclusions

Based on the results of the analysis of Financial Performance using Du Pont System with Time Series Approach (TSA) and Cross Sectional Approach (CSA) in Pharmaceutical Industry Companies Listed on the IDX for the 2018-2022 period, it can be concluded that:

1. Du Pont System Analysis for the assessment of the Company's Financial Performance PT. Darya Varia Laboratorium Tbk. for the 2018-2022 period shows that the average value of Du Pont System is 0.55%. However, it should be noted that this figure is lower than the industry average of 0.69%. Therefore, the financial performance of this company can actually be said to be less satisfactory or less **Good** when compared to the industry average.
2. Du Pont System Analysis for the assessment of the Company's Financial Performance PT. Indofarma Tbk. for the 2018-2022 period shows that the average value of Du Pont System is 1.23%. However, this figure is higher than the industry average of 0.69%. Therefore, the financial performance of this company can actually be said to be **Good** when compared to the industry average.
3. Du Pont System Analysis for the assessment of the Company's Financial Performance PT. Kimia Farma Tbk. for the 2018-2022 period shows that the average value of Du Pont System is 0.63%. However, it should be noted that this figure is lower than the industry average of 0.69%. Therefore, the financial performance of this company can actually be said to be less satisfactory or **Less Good** when compared to the industry average.
4. Du Pont System Analysis for the assessment of the Company's Financial Performance PT. Kalbe Farma Tbk. for the 2018-2022 period shows that the average value of Du Pont System is 0.35%. However, it should be noted that this figure is lower than the industry average of 0.69%. Therefore, the financial performance of this company can actually be said to be less satisfactory or **Less Good** when compared to the industry average.
5. Du Pont System Analysis for the assessment of the Company's Financial Performance PT. Merck Tbk. for the period 2018-2022 shows that the average value of Du Pont System is 0.78%. However, this figure is higher than the industry average of 0.69%. Therefore, the financial performance of this company can actually be said to be **Good** when compared to the industry average.
6. Du Pont System Analysis for the assessment of the Company's Financial Performance PT. Phapros Tbk. for the period 2018-2022 shows that the average value of Du Pont System is 0.64%. However, it should be noted that this figure is lower than the industry average of 0.69%. Therefore, the financial performance of this company can actually be said to be less satisfactory or less **Good** when compared to the industry average.
7. Du Pont System Analysis for the assessment of the Company's Financial Performance PT. Pyridam Farma Tbk. for the 2018-2022 period shows that the average value of Du Pont System is 0.79%. However, this figure is higher than the industry average of 0.69%. Therefore, the financial performance of this company can actually be said to be **Good** when compared to the industry average.
8. Du Pont System Analysis for the assessment of the Company's Financial Performance PT. Soho Global Health Tbk. for the period 2018-2022 shows that the

average value of Du Pont System is 0.78%. However, this figure is higher than the industry average of 0.69%. Therefore, the financial performance of this company can actually be said to be **Good** when compared to the industry average.

9. Du Pont System Analysis for the assessment of the Company's Financial Performance PT. Sido Muncul Tbk. Herbal and Pharmaceutical Industry for the 2018-2022 period shows that the average value of Du Pont System is 0.58%. However, it should be noted that this figure is lower than the industry average of 0.69%. Therefore, the financial performance of this company can actually be said to be less satisfactory or **Less Good** when compared to the industry average.
10. Du Pont System Analysis for the assessment of the Company's Financial Performance PT. Tempo Scan Pacifik Tbk. for the period 2018-2022 shows that the average value of Du Pont System is 0.59%. However, it should be noted that this figure is lower than the industry average of 0.69%. Therefore, the financial performance of this company can actually be said to be less satisfactory or **Less Good** when compared to the industry average.
11. The financial performance of pharmaceutical companies in Indonesia listed on the Indonesia Stock Exchange in 2018-2022 if using Return On Investment (ROI) and Return On Equity (ROE) analysis with the Du Pont System approach in the Time Series Approach (TSA) in the period 2018 to 2022 period has decreased and fluctuated. ROI has decreased due to the company's expenses, an increase in cost of goods sold and ineffective and inefficient use of assets from year to year, so that the company is still less effective and efficient in generating profits on its assets. Return On Investment (ROI) with Du Pont System Cross Sectional Approach (CSA) shows that the average industry ROI produced by pharmaceutical companies in Indonesia can be said to be still **Good**.

2. Suggestions

The suggestions that can be given by researchers on the research that has been done are as follows:

1. Companies in this category should focus efforts to improve company performance to improve the five ratios that have been analyzed. One way that can be done is to increase sales volume against existing inventory. Thus, the company can increase cash flow from sales proceeds and optimize the use of its assets.
2. Companies that are in a condition prone to bankruptcy should take more careful precautions. It is important for company managers to make repairs as soon as possible to avoid the risk of bankruptcy in the next period. This can involve measures such as debt restructuring, inefficient cost reduction, diversification of products or markets, or the search for additional capital.
3. In addition, companies need to conduct a thorough evaluation of the aspects that affect their financial performance. This includes reviewing sales and marketing strategies, inventory management, operational efficiency, and risk management. By analyzing these factors in depth, companies can identify areas that need improvement and take appropriate steps to improve their financial performance.
4. Another suggestion is to compare with similar companies in the pharmaceutical industry. Benchmarking and analyzing industry best practices can provide additional insight into how to improve a company's financial performance.

These suggestions are expected to help companies to identify and implement strategies that are more effective in improving their financial performance and avoiding risks that could lead to bankruptcy.

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