

## DU PONT SYSTEM ANALYSIS TO ASSESS FINANCIAL PERFORMANCE AT PT ACE HARDWARE TBK PERIOD 2014-2018

**Bani Zamzami**  
Gunadarma University

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### Corresponding author\*:

bani\_zamzami@staff.gunadarma.ac.id

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**Abstract:** The business world in this era of globalization causes technology to grow rapidly. Therefore, companies are required to run the company's performance better and with a mature strategy, so that the company's goal of achieving high profits can be realized. This writing examines how the financial performance of a company based on the Du Pont System method. In this Du Pont System, it combines asset turnover with profit margins / Net Profit Margin on sales and how much influence they have on Return On Investment (ROI). The purpose of this paper is to determine the financial performance with the Du Pont System PT method. Ace Hardware Tbk Period 2014-2018. The source of this research data is taken directly from the web of PT. Ace Hardware Tbk. From the results of writing company performance measurements using the Du Pont System method at PT. Ace Hardware Tbk for the 2014-2018 period, it can be stated that the company's financial performance is in good condition because it is still above industry standards, the rise and fall of Return On Investment is caused by increased sales not matched by an increase in net profit after tax so that the Net Profit Margin fluctuated over the past five years, and the fluctuating Total Asset Turnover was due to an increase in total assets that was not matched by an increase in sales value.

**Keywords:** Du Pont System, Financial Performance

## INTRODUCTION

Companies as a form of organization generally have a goal to be achieved in the business world, namely to achieve maximum profit. Therefore the company must be able to carry out the company's performance well and be supported by a mature strategy including in terms of financial management. Thus encouraging companies to be more selective in operating to achieve high profits in the long term can be realized. The financial statements to be analyzed are the balance sheet and income statement. The analytical tools that can be used at PT Ace Hardware Indonesia Tbk are: Du Pont System (ROI) analysis,

This study uses the object of research at PT. Ace Hardware Indonesia Tbk uses the DuPont system analysis tool from 2014 to 2018. The Du Pont System is a method used to assess the operational effectiveness of the company, because this analysis includes elements of sales, assets used and profits generated by the company. The Du Pont System method provides information about various factors that cause the ups and downs of a company's financial performance and the method is almost the same as ordinary financial statement analysis, but the approach is more integrative.

According to Syafrida Hani, (2015: 137) which states "The Du Pont System method is a comprehensive financial performance measurement tool, because it is able to directly describe the two main reports of the balance sheet and profit and loss financial statements".

The purpose of this analysis is to include elements of sales, assets used and profits generated by the company. The purpose of this analysis is to find out how effective the company is in managing its capital, so that this analysis includes various ratios (Kasmir, 2008:202).

In this study, the authors used the Du Pont ROI system to measure a company's financial performance. With Du Pont System ROI analysis, a company can determine the ability of the company's total assets to generate profits, the greater the ROI, the better because it means the greater the company's ability to generate profits.

Analysis of the Du Pont System according to Gitman and Zutter (2012) analyzing financial statements and assessing the condition or performance of the company, especially financial conditions can use the Du

Pont System analysis approach. Specifically, the measurement of financial performance with the Du Pont System places more emphasis on calculating the components contained in the company's income statement and balance sheet.

From the above understanding, it can be concluded that the Du Pont System analysis is an analysis that includes activity ratios and profit margins on sales to determine the profitability of a company. To find out the profit position and use of company assets by using Net Profit Margin (NPM), Total Asset Turnover (TATO) which then uses Return On Investment (ROI) to combine the two ratios and have efficient use of assets in generating profits and profits. This Du Pont System model specifically describes the profitability ratios, which will help management to make an analysis of their business performance.

PT. Ace Hardware Indonesia Tbk is a pioneer and has a strong brand in the company segment in the field of the most complete home furnishing and lifestyle center in Indonesia which is able to show positive growth in the midst of company competition in the retail sector. The growth of Indonesia's economic conditions in 2016 brought positive sentiment for the growth of the domestic retail business. In taking advantage of this profitable momentum, many retail companies were so aggressive in opening new outlets. Likewise with PT. Ace Hardware Indonesia. As a leading company in the country in the household goods and lifestyle retail business, Ace Hardware Indonesia continued its growth by opening several new outlets in 2016 in line with increasing market demand. This growth is inevitable given that household products and lifestyle have now become an important part of the dynamics of people's lives. Caring for and improving the atmosphere of the current residence has developed into a trend for consumers. But in today's modern era, this type of e-commerce is also very popular. Where sellers carry out promotional activities, have more affordable and also cheap prices and provide products by utilizing online networks as media, considering that more and more people are aware of the power of the internet and digital devices in improving business performance. Based on this description, the authors are interested in conducting research with the title "DU PONT SYSTEM ANALYSIS FOR MEASURING THE FINANCIAL PERFORMANCE OF PT. ACE HARDWARE INDONESIA Tbk period 2014-2018."

## **LITERATURE REVIEW**

### **Definition of Company Financial Performance**

Financial performance is a description of the financial condition of a company which is analyzed with financial analysis tools, so that it can be known about the merits of the company's financial condition which reflects work performance in a certain period. This is very important so that resources are used optimally in dealing with environmental changes.

According to Classyane, et al, (2011), "Financial performance of a company is a description of the financial condition of a company that is analyzed using financial analysis tools, so that it can be known about the merits of the financial condition of a company that reflects work performance in a certain period." Thus it can be understood that financial performance as a reflection of the description of the achievement of company success can be interpreted as the results that have been achieved for the various activities that have been carried out. The financial performance seen based on the financial sales report presented by management will give meaning when analyzing the implementation of the performance that has been carried out.

### **Definition of Financial Statement Analysis**

According to Abdullah (2001) company financial analysis is a critical, systematic and methodological study of financial reports to determine financial conditions both in the past, conditions for the current year and predictions for the future.

According to Ridwan and Inge (2003) financial statement analysis is information intended for society, government, suppliers and creditors, company owners/shareholders, company management, investors, customers and employees that are needed regularly to measure the condition and efficiency of company operations. . The analysis of these financial statements is relative because it is based on knowledge and uses ratios or relative values. The purpose of the analysis of the financial statements themselves.

According to Budi Rahardjo (2001) is to assist users in predicting the future by comparing, evaluating, and analyzing trends

Martono and Harjito (2004:51) define financial statement analysis as: Analysis of the financial condition of a company involving balance sheets and profit and loss.

According to Syamsuddin (2000: 39) explains that in essence there are two ways that can be done in comparing the company's financial ratios, namely cross sectional approach and time series analysis. Cross sectional approach is a way of evaluating by comparing ratios between one company and other similar companies at the same time. Time series analysis is carried out by comparing the company's financial ratios from one period to another.

According to Horne and Wachowicz Jr. (2012: 154) financial statement analysis is the art of converting data from financial reports into useful information for decision making.

According to Kasmir (2012: 66) the meaning of financial statement analysis is the preparation of financial statements based on relevant data, and carried out with the correct accounting and valuation procedures so that the actual financial condition of the company will be seen.

## METHODOLOGY

PT Ace Hardware is a company engaged in the buying and selling of household appliances and tools. As a distributor of household appliances and tools, Ace Hardware has many competitors, some of PT Ace Hardware's competitors include Kawan Lama, Mitra 10 Homesmart and Transmart. Starting from Mr. Richard Hesse took over a small hardware store business in 1920 in Chicago, Illinois, United States.

The following is data that the authors obtained from the annual financial reports of PT. Ace Hardware Tbk, for the 2014-2018 period to assess the company's financial performance using Du Pont analysis. Below is the required data such as total assets, net sales and profit after tax based on the annual report of PT. Ace Hardware Tbk.

Table 1. Grouped financial report data from PT. Ace Hardware Tbk (in billions of rupiah)

Information	Years	Rp
Total assets	2014	2,947,3
	2015	3,267,5
	2016	3,731,1
	2017	4,428,8
	2018	5,321,2
Net sales	2014	4,541,5
	2015	4,742,5
	2016	4,935,9
	2017	5,938,6
	2018	7,239,8
Profit After Tax	2014	548,9
	2015	584,9
	2016	706,2
	2017	780,7
	2018	976,3

## RESULT AND DISCUSSION

The Du Pont system is an analysis that is used to control for changes in activity ratios and net profit margins and how much they affect Return On Investment (ROI). Du Pont System is basically used to be able to evaluate the effectiveness of the company by seeing how the return on investment of the company. For this, the following calculation steps are carried out:

### 1. Total Asset Turnover (TATO)

Total Asset Turnover shows how effective the company is in using all of its assets to create sales and earn profits or shows how many times the assets used in operating activities rotate in a certain period.

The formula for calculating Total Asset Turnover (TATO) / Total Asset Turnover is as follows:

$$\text{Total Assets Turnover} = \frac{\text{Net sales} \times 1 \text{ Time}}{\text{Total assets}}$$

Years 2014

$$\text{TATO} = \frac{\text{Rp } 4,541,5}{\text{Rp } 2,947,3} \times 1 \text{ Time} = 1,54 \text{ Time}$$

Years 2015

$$\begin{aligned} \text{TATO} &= \frac{\text{Rp } 4,742,5}{\text{Rp } 3,267,5} \times 1 \text{ Time} = 1,45 \text{ Time} \\ \text{Years 2016} \\ \text{TATO} &= \frac{\text{Rp } 4,935,9}{\text{Rp } 3,731,1} \times 1 \text{ Time} = 1,32 \text{ Time} \\ \text{Years 2017} \\ \text{TATO} &= \frac{\text{Rp } 5,938,6}{\text{Rp } 4,428,8} \times 1 \text{ Time} = 1,34 \text{ Time} \\ \text{Years 2018} \\ \text{TATO} &= \frac{\text{Rp } 7,239,8}{\text{Rp } 5,321,2} \times 1 \text{ Time} = 1,36 \text{ Time} \end{aligned}$$

Table 2. Financial Report Data for Calculation of Total Asset Turnover (TATO) / Total Asset Turnover of PT. Ace Hardware Tbk for the 2014-2018 Period (In Billion Rupiah)

Years	Net sales	Total assets	TATO	Industry Standard	Information
2014	4,541,5	2,958,4	1,54	1,1	Efficient
2015	4,742,5	3,267,5	1,45	1,1	Efficient
2016	4,935,9	3,731,1	1,32	1,1	Efficient
2017	5,938,6	4,428,8	1,34	1,1	Efficient
2018	7,239,8	5,321,2	1.36	1,1	Efficient

Based on Table 4.2, it can be seen that for Total Asset Turnover in 2014, the capital invested in all assets averaged 1.54 times in one year or every Rp. 1.00 for a year can generate an income of Rp. 1.54. In 2015, the capital invested in overall assets averaged 1.45 times per year in one year, every Rp. 1.00 for a year can generate Rp. 1.45. In 2016, the capital invested in overall assets averaged 1.32 times in one year or every Rp. 1.00 for a year can generate an income of Rp. 1.32. In 2017, the capital invested in overall assets rotates an average of 1.34 times or every Rp. 1.00 for a year can generate an income of Rp. 1.34. In 2018, the capital invested in overall assets averaged 1.36 times in one year or every Rp. 1.00 for a year can generate an income of Rp. 1.36.

From 2014 to 2015, total asset turnover decreased by 0.09 times. from 2015 to 2016, total asset turnover decreased by 0.13 times. There was a decrease because the total assets were not proportional to the increase in sales. From 2016 to 2017, total asset turnover has improved, increasing by 0.02 times. From 2017 to 2018 total asset turnover has increased by 0.02 times. This shows that the company is good at using all of its assets to create sales and earn profits because it is above the industry standard.

## 2. Net Profit Margin

Net Profit Margin measures the extent to which a company's ability to generate profits at the level of sales. the greater the ratio, the better.

### NPM Calculation Formulas

$$\text{Net Profit Margin} = \frac{\text{Profit After Tax}}{\text{Penjualan}} \times 100\%$$

Years 2014

$$\text{Net Profit Margin} = \frac{\text{Rp } 548,9}{\text{Rp } 4,541,5} \times 100\% = 12,1\%$$

Years 2015

$$\text{Net Profit Margin} = \frac{\text{Rp } 584,9}{\text{Rp } 4,742,5} \times 100\% = 12,3\%$$

Years 2016

$$\text{Net Profit Margin} = \frac{\text{Rp } 706,2}{\text{Rp } 4,935,9} \times 100\% = 14,3\%$$

Years 2017

$$\text{Net Profit Margin} = \frac{\text{Rp } 780,7}{\text{Rp } 5,938,6} \times 100\% = 13,1\%$$

Years 2018

$$\text{Net Profit Margin} = \frac{\text{Rp } 976,3}{\text{Rp } 7,239,8} \times 100\% = 13,4\%$$

Table 3. Financial Report Data for Calculation of Net Profit Margin (NPM) / Net Profit Margin of PT. Ace Hardware Tbk for the 2014-2018 Period (In Billion Rupiah)

Years	Profit After Tax	Net sales	NPM	Industry Standard	Information
2014	548,9	4,541,5	12,1%	3,92%	Efficient
2015	584,9	4,742,5	12,3%	3,92%	Efficient
2016	706,2	4,935,9	14,3%	3,92%	Efficient
2017	780,7	5,938,6	13,1%	3,92%	Efficient
2018	976,3	7,239,8	13,4%	3,92%	Efficient

Based on Table 4.3, it can be seen that for Net Profit Margin in 2014, every IDR 1.00 of sales can generate a net profit of IDR 0.121. In 2015, every IDR 1.00 of sales can generate a net profit of IDR 0.123. In 2016, every IDR 1.00 of sales can generate a net profit of IDR 0.143. In 2017, every IDR 1.00 of sales can generate a net profit of IDR 0.131. In 2018, every IDR 1.00 of sales can generate a net profit of IDR 0.134.

From 2014 to 2015, Net Profit Margin increased by 0.002%. from 2015 to 2016, Net Profit Margin increased by 0.02%. From 2016 to 2017, Net Profit Margin decreased by 0.012%. From 2017 to 2018, Net Profit Margin has increased by 0.003%.

After looking at the calculation of the Net Profit Margin as a whole, it can be said that the company's performance is in good condition because the profit earned by the company in 2014 to 2015 has increased. This increase was due to an increase in net profit after tax which was higher than sales. The increase in net profit after tax was IDR 548.9 to IDR 584.9, while sales were IDR 4,541.5 to IDR 4,742.5. This shows that the greater the ratio, the more efficient it will be because it is considered that the company gets a high net profit and is above the industry standard, but in 2016 to 2017 it has decreased, due to an increase in sales that is greater than net profit after tax, an increase in sales, namely amounting to IDR 4,935.9 to IDR 5,938.6. In 2017 to 2018 it has increased again, this shows that the company is very good at managing sales results into profits and is efficient because it is still above industry standards.

### 3. Return On Investment (ROI) Du Pont System

Analysis of the Du Pont System (ROI) is an analysis used to calculate the rate of return on investment that transfers profit margins and total assets turnover.

The formula for calculating the Du Pont System's Return On Investment (ROI) is as follows:

*Return On Investment = Total Asset Turnover x Net Profit Margin*

- Years 2014

$$\text{ROI} = 1,54 \times 12,1\% = 18,6\%$$

- Years 2015

$$\text{ROI} = 1,45 \times 12,3\% = 17,8\%$$

- Years 2016

$$\text{ROI} = 1,32 \times 14,3\% = 18,8\%$$

- Years 2017

$$\text{ROI} = 1,34 \times 13,1\% = 17,5\%$$

- Years 2018

$$\text{ROI} = 1,36 \times 13,4\% = 18,2\%$$

Table 4. Financial Report Data for Calculation of Return On Investment (ROI) DuPont System PT.Ace Hardware Tbk Period 2014-2018 (In Billion Rupiah)

Years	TATO	NPM	ROI	Industry Standard	Information
2014	1,54	12,1%	18,6%	5,08%	Efficient
2015	1,45	12,3%	17,8%	5,08%	Efficient
2016	1,32	14,3%	18,8%	5,08%	Efficient
2017	1,34	13,1%	17,5%	5,08%	Efficient
2018	1,36	13,4%	18,2%	5,08%	Efficient

Based on Table 4.4 it can be seen that for Return On Investment at PT. Ace Hardware Tbk in 2014-2018 in fluctuating conditions, which is obtained from the total asset turnover multiplied by the net profit margin, which consists of several elements of sales, total assets, and net profit after tax. From 2014 to 2015, the ROI calculation decreased by 0.8%, from 18.6% to 17.8%. This decrease was caused by total asset turnover which decreased from 1.54 to 1.45. From 2015 to 2016, the ROI calculation has increased by 1%. This increase was due to the increase in net profit margin from the previous 12.3% to 14.3%. From 2016 to 2017, the ROI calculation decreased by 1.3%, this was because the net profit margin decreased from the previous 14.3% to 13.1%. From 2017 to 2018 with ROI calculations, it has increased by 0.7%. This is because both have increased. This increase indicates that the company is efficient in managing assets to generate profits.

### Summary of Analysis Results

**Table 5. Summary of Data Analysis (In Billion Rupiah)**

Information	Years				
	2014	2015	2016	2017	2018
Penjualan	4,541,5	4,742,5	4,935,9	5,938,6	7,239,8
Total assets	2,947,3	3,267,5	3,731,1	4,428,8	5,321,2
Profit After Tax	548,9	584,9	706,2	780,7	976,3
TATO	1,54	1,45	1,32	1,34	1,36
NPM	12,1%	12,3%	14,3%	13,1%	13,4%
ROI	18,6%	17,8%	18,8%	17,5%	18,2%

### Analysis of the Du Pont System

Based on the results of calculations that have been carried out using the Du Pont System for PT. Ace Hardware Tbk for the 2014-2018 period. So it can be analyzed that total asset turnover from 2014 to 2015 decreased by 0.09 times. From 2015 to 2016 it decreased by 0.13 times. The decrease occurred because the increase in total assets was higher than sales, thus the turnover of assets in the company was unstable. However, from 2016 to 2018 it has increased. From 2016 to 2017 there was an increase of 0.02 times. This can be seen from 2016 from 1.32 times to 1.34 times. From 2017 to 2018 there was an increase of 0.02 times. This can be seen from 2017 from 1.34 times to 1.36 times. This increase was due to a rapid increase in sales. This shows that the company is more efficient in managing total assets in generating sales.

The company's Net Profit Margin from 2014 to 2015 can be seen from the previous 12.1% to 12.3%. This shows that the higher the ratio, the better, but from 2016 to 2017 it has decreased, this can be seen from 2016 of 14.3% to 13.1%. This decrease was due to a larger increase in sales compared to net profit after tax. In 2017 to 2018 it has increased again, this can be seen from 2017 of 13.1% to 13.4%, this shows that the company is quite efficient because it is still above industry standards.

### CONCLUSION

Based on the analysis that has been done to measure the company's performance at PT. Ace Hardware Tbk uses the Du Pont System method for the 2014-2018 period, it can be stated that the company's financial performance is in good condition because it is still above industry standards, the rise and fall of Return On Investment is caused by an increase in net profit after tax resulting in a fluctuating Net Profit Margin during five years, and fluctuating Total Asset Turnover due to an increase in total assets that was not matched by an increase in sales value.

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