

Analysis of Financial Performance Assessment Based on Du Pont System with Time Series Approach (TSA) and Cross Sectional Approach (CSA) Method (Case Studies on Textile Companies Listed on the Indonesia Stock Exchange for the 2017 - 2019 Period)

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Abstract

The purpose of this study is to determine the financial performance assessment of textile companies listed on the Indonesia Stock Exchange 2017-2019 using the Du Pont System Time Series Approach and Cross Sectional Approach analysis methods, to determine the financial performance assessment of textile companies listed on the Indonesia Stock Exchange. 2017-2019 based on the Du Pont System Analysis method. The results of this study are performance appraisal based on the Du Pont system analysis which consists of PT. Polycem Indonesia, Tbk has an average value above the average value of the industry with that the company is said to be good, PT. Argo Pantes, Tbk has an average value above the industry average, with this the company's performance is said to be good, PT. Trisula Textile Industries, Tbk has an average value greater than the industry average, with this it is said that the company's performance is said to be good, PT. Eratex Djaja has an average value greater than the industry average which means that the company's performance is said to be good, PT. . Evershine has an average value above the industry average which means that the company's performance is said to be good.

Keywords

financial performance;
du pont system with
time series approach
method; du pont
system with cross
sectional approach
method



I. Introduction

The textile industry is part of the mainstay economic sector because it makes a major contribution to the Indonesian economy. This is because the textile sector is a sector that requires a large number of human resources and is export-oriented. The consumption of textiles has increased significantly from year to year in line with the increase in Indonesia's population growth and changes in lifestyle. In this case, the textile industry players must work hard in increasing productivity, quality and efficiency through the application of more modern technology in accordance with the digital era. With an increase in the productivity of textile companies, it will boost the economy of manufacturing companies and the growth of the Indonesian economy in general.

The rapid development of the economy in Indonesia requires participation in corporate financial management, especially in assessing the company's financial performance. This is where an evaluation of the company's financial performance is needed in order to survive in competition between other companies. In evaluating financial performance, there is one method that is applied, namely the Du Pont System. This method is one of the relevant financial performance measurement tools used to see the extent to

which the company's effectiveness in the return on company assets or ROA (Return On Assets). This method is a combination of the ratio of activity and profitability.

The object of research is a go public company engaged in textiles in Indonesia which is listed on the Indonesia Stock Exchange in 2017 - 2019. With the du pont system so that it can assist in analyzing in order to see how the company's decisions and activities during the accounting period as measured by financial ratios. By analyzing using the Return on Equity system, it is possible to evaluate changes in the company's conditions and performance, whether there is improvement or deterioration or both. (Fraser & Ormiston, 2004) From this background.

2.1 Formulation of the Problem

Based on the background of the problem above, the formulation of the research problem is as follows:

1. How is the analysis of the financial performance assessment of Textile Companies listed on the Indonesia Stock Exchange in 2017 - 2019 using the Du Pont System Time Series Approach (TSA) and Cross Sectional Approach (CSA) analysis methods?
2. How is the analysis of the financial performance assessment of Textile Companies listed on the Indonesia Stock Exchange in 2017 - 2019 using the Du Pont System Analysis method?

2.2 Theoretical Basis

Financial performance is an analysis that is used to assess the extent to which the company has implemented it using financial implementation rules properly and correctly (Fahmi, 2011: 2).

There are three methods in conducting financial ratio analysis, among others:

- a. Cross Sectional Approach (CSA) is to compare the financial ratios of several companies at the same time including comparing the ratios with other similar companies or can also be compared with the industry average ratio.
- b. Time Series Approach (TSA) That is comparing the company's financial performance in several periods knowing the condition of each research variable from time to time in a certain period by using financial ratio analysis.
- c. Combined Analysis Approach (CAA) That is a combination of Cross Sectional Approach (CSA) and Time Series Approach (TSA)

Approach with Financial Analysis The Dupont System is one of the relevant financial performance measurement tools used to see the extent to which the company's effectiveness in the return on assets of the company or ROA (Return On Assets). Financial performance as a measuring instrument to know the process of implementing financial resources owned by the company. The Covid-19 pandemic has impacted the banking sector, resulting in poor financing due to debtors' disbursements as a result of the large number of people losing their jobs and difficulties in financing payments. (Ichsan, et al. 2021)

II. Research Methods

This research uses a descriptive type of research with a quantitative approach. The main points in this research are:

2.1 Du Pont Systems

Researchers only research financial statements from the 2017-2019 period of plantation companies in Indonesia that are listed on the Indonesia Stock Exchange which will be calculated in the Du Pont approach. The ratios used in this analysis system are:

- a. Profitability Ratio
- b. Activity Ratio Perform the Du Pont System calculation by calculating:
- c. Return on Assets (ROA)
- d. Return on Equity (ROE) with Equity Multiplier

The population in this study are Indonesian Textile Companies Listed on the Indonesia Stock Exchange for the 2017-2019 period and the website www.idx.co.id

2.2 Financial Performance

After carrying out the analysis using the Du Pont System approach, then making conclusions using the Cross sectional approach and Time Series Analysis methods, so that from this conclusion we can find out whether the company's financial performance is good or not.

III. Results and Discussion

Data Analysis “Time Series Approach (TSA)” With the Time Series Approach (TSA) method, it can be seen the condition of each variable used in this study, by looking at the calculation results below:

3.1 Net Profit Margin (NPM) with Du Pond System Approach

Net profit margin is a ratio that compares the company's profit with the total amount of money it generates.

The financial performance based on this ratio can be seen as follows:

Table 1. The financial performance of Net Profit Margin (NPM)

No	Company Name	NPM			Average	Financial Performance
		2017	2018	2019		
1	PT. Polychem Indo, Tbk	-1.7	1	-15.4	-5,367	Not Good
2	PT. Argo Pantes, Tbk	-45.9	-25.1	-33.8	-34.933	Not Good
3	PT. Trisula Textile Industries, Tbk	3.4	4.3	3.2	3,633	Not Good
4	PT. Eratex Djaja	-2.5	1.4	0.9	-0.067	Not Good
5	PT. Ever Shine	-4.8	3.9	-9.3	-3,400	Not Good
6	PT. Indo Rama	0.2	7.4	5.4	4,333	Not Good
7	PT. Asia Pacific	-17.5	-7.3	-13.1	-12,633	Not Good
8	PT. Pan Brothers, Tbk.	1,423	2,660	2,564	2,215	Not Good
9	PT. Ricky Putra Globalindo, Tbk.	1.035	0.877	0.800	0.904	Not Good
10	PT. Sri Rejeki Isman, Tbk.	9,000	8,200	7,400	8,200	Good
11	PT. Sunson Textile Manufacturer, Tbk.	-6,900	0.300	-6,000	-4,200	Not Good
12	PT. Trisula International, Tbk.	1,800	2,300	1,600	1,900	Not Good
13	PT. Nusantara Inti Corpora, Tbk.	1,000	0.500	0.600	0.700	Not Good
	Industrial Average	-4,096	0.029	-3,676	-2.581	Not Good

Based on the data above, it can be seen that the NPM (Net Profit Margin) value of textile companies listed on the IDX for the 2016 - 2017 period did not perform well, only one company, namely PT. Sri Rejeki Isman, Tbk. which performs well based on its NPM value with an average value of 8,200%, meaning that the company has carried out production operations effectively. The average textile company in the 2016-2017 period had a value of -2.581% where in 2017 it was -4.096, in 2018 it was 0.029, and in 2019 it was -3.676, this shows that the textile company in carrying out its production has not been effective in investing. And return the capital that has been used in the production process so that investors do not receive the expected profit when investing.

3.2 Total Assets Turn Over (TATO) with Du Pont System Approach

This ratio measures the effectiveness of the company in managing its assets in generating sales. Or it could be said, to compare the acquisition of sales with assets owned. The higher, of course, the better, and the lower indicates that the sales method is not optimal.

The financial performance based on this ratio can be seen as follows:

Table 2. The financial performance of Total Assets Turn Over (TATO)

No	Company Name	TATO			Average	Financial Performance
		2017	2018	2019		
1	PT. Polychem Indo, Tbk	105	127	91.4	107,800	Good
2	PT. Argo Pantes, Tbk	33.8	35.1	22.8	30.567	Not Good
3	PT. Trisula Textile Industries, Tbk	95.7	109	120.9	108,533	Good
4	PT. Eratex Djaja	120.9	121.2	120.9	121,000	Good
5	PT. Ever Shine	57	58	48.9	54,633	Good
6	PT. Indo Rama	96.4	104.1	101.9	100,800	Good
7	PT. Asia Pacific	277.3	230.6	202.8	236,900	Good
8	PT. Pan Brothers, Tbk	95.815	105.579	101,011	100,802	Good
9	PT. Ricky Putra Globalindo	116,400	136,900	132,800	128,700	Good
10	PT. Sri Rejeki, Tbk	6,370	75,800	75,800	52,657	Good
11	PT. Sunson Textile Manufacture, Tbk	56,800	73,000	68,800	66,200	Good
12	PT. International Tricle, Tbk	142,000	136,000	128,900	135,633	Good
13	PT. Nusantara Inti Corpora, Tbk	24,200	24,700	25,900	24,933	Not Good
	Industrial Average	94,437	102.845	95.601	97,628	Good

TATO (Total Assets Turn Over) in the textile industry for the 2017-2019 period has a fluctuating average value where in 2018 it increased from 94.437% to 102.845%, while in 2019 it decreased by 95.601%. with an average value of 97.628%, it can be concluded that the company has been effective in optimizing its assets in generating sales of textiles that have been produced and also the sales methods that have been applied have been maximally carried out by the textile industry management.

3.3 Multiplier Equity Ratio (MER) with Du Pont System Approach

Multiplier Equity Ratio (MER) is a ratio that shows the company's ability to utilize shareholder equity or how big the portion of the company's assets is financed by shareholders. If the smaller the equity multiplier means the share of shareholders will be bigger, so the performance will be better.

The financial performance based on this ratio can be seen as follows:

Table 3. The financial performance of Multiplier Equity Ratio (MER)

No	Company Name	MER			Average	Financial Performance
		2017	2018	2019		
1	PT. Polychem Indo, Tbk	127	115	123	121,667	Good
2	PT. Argo Pantes, Tbk	-136	-110.3	-98.2	-114.833	Not Good
3	PT. Trisula Textile Industries, Tbk	6.3	9.3	8.2	7,933	Good
4	PT. Eratex Djaja	-10	5.6	3.9	-0.167	Good
5	PT. Ever Shine	-11.5	8.6	454.1	150,400	Good
6	PT. Indo Rama	277.3	230.6	202.8	236,900	Good
7	PT. Asia Pacific	990.8	1569.1	1182.3	1,247,400	Good
8	PT. Pan Brothers, Tbk.	244,200	231,100	249,300	241,533	Not Good
9	PT. Ricky Putra Globalindo, Tbk.	319,400	346,000	354,300	339,900	Not Good
10	PT. Sri Rejeki Isman, Tbk.	269,800	264,300	263,100	265.733	Good
11	PT. Sunson Textile Manufacturer, Tbk.	285,100	261,200	256,900	267,733	Good
12	PT. Trisula International, Tbk.	153,000	177,700	173,700	168,133	Good
13	PT. Nusantara Inti Corpora, Tbk.	173,900	170,600	169,300	171,267	Good
	Industrial Average	206.8692	252.2154	257.1307692	238,7384615	Good

The average MER (Multiplier Equity Ratio) ratio in the textile industry for the 2017 – 2019 period fluctuated. In 2018 it decreased by 252.2154% where previously it was 206.8692%, this means it decreased by 45.3462% and the 2019 period increased by 257.1307692%. This shows that the company has been effective in investing its capital.

3.4 Return on Investment (ROI) with Du Pont System Approach

Table 4. The financial performance of Return on Investment (ROI)

No	Company Name	Roa Dupont			Average	Financial Performance
		2017	2018	2019		
1	PT. Polychem Indo, Tbk	-1.8	1.27	-593.5	-198.010	Not Good
2	PT. Argo Pantes, Tbk	-13.4	-7.2	-5.8	-8,800	Not Good
3	PT. Trisula Textile Industries, Tbk	6.3	7.5	3.9	5,900	Good
4	PT. Eratex Djaja	-3	1.7	1.1	-0.067	Not Good
5	PT. Ever Shine	-2.1	666.6	12	225,500	Good
6	PT. Indo Rama	1.4	8.6	6.9	5,633	Good
7	PT. Asia Pacific	-5.2	-2.9	-4.6	-4,233	Not Good
8	PT. Pan Brothers, Tbk.	1.363	2,808	2,590	2,254	Not Good
9	PT. Ricky Putra Globalindo, Tbk.	1,204	1,200	1.062	1,156	Not Good
10	PT. Sri Rejeki Isman, Tbk.	0.573	6,216	5,609	4.133	Good
11	PT. Sunson Textile Manufacturer, Tbk.	-3.919	0.219	-4,128	-2,609	Not Good
12	PT. Trisula International, Tbk.	2,556	3,128	2,062	2,582	Good
13	PT. Nusantara Inti Corpora, Tbk.	0.242	0.124	0.155	0.174	Not Good
	Industrial Average	-1,214	53,020	-44,050	2,586	Good

Return on total assets (ROA) or it can also be called the rate of return on investment (ROI) is a tool to measure the company's ability to utilize its assets to earn profits, while in other words, this ratio can also measure the rate of return on investment that has been made by the company using all of its assets funds (assets) it has.

3.5 Return on Equity (ROE) with Du Pont System Approach

ROE is the ratio of net profit after tax to own capital that can be used to measure the company's ability to obtain profits available to the company's shareholders. This ratio is a measure of profitability from the point of view of shareholders.

Table 5. The financial performance of Return on Equity (ROE)

No	Company Name	Roe Dupont			Average	Financial Performance
		2017	2018	2019		
1	PT. Polychem Indo, Tbk	-2.3	1.5	-17.3	-6.033	Not Good
2	PT. Argo Pantes, Tbk	21.1	9.7	7.6	12,800	Good
3	PT. Trisula Textile Industries, Tbk	6.3	9.3	8.2	7,933	Good
4	PT. Eratex Djaja	-10	5,600	3.9	-0.17	Not Good
5	PT. Ever Shine	-11.5	8.6	-20.6	-7,833	Not Good
6	PT. Indo Rama	0.5	17.8	11.2	9,833	Good
7	PT. Asia Pacific	-82.2	-71.1	-77.6	-76,967	Not Good
8	PT. Pan Brothers, Tbk.	3,329	6,489	6,456	5,425	Good
9	PT. Ricky Putra Globalindo, Tbk.	3,847	4,153	3,764	3,921	Good
10	PT. Sri Rejeki Isman, Tbk.	1,547	16,428	14,758	10,911	Good
11	PT. Sunson Textile Manufacturer, Tbk	-11,174	0.572	-10,605	-7.069	Not Good
12	PT. Trisula International, Tbk.	3,911	5.558	3,582	4,351	Good
13	PT. Nusantara Inti Corpora, Tbk.	0.421	0.211	0.263	0.298	Not Good
	Industrial Average	-5.863	431,478	-5,106	140,169	Good

Dupont's average ROE in the textile industry for the 2017-2019 period fluctuated but was still in the ROE category with Good performance, meaning that the company had carried out operations effectively and had succeeded in providing profits to investors.

3.6 Financial Performance Assessment Based on the Du Pont System Method for Textile Companies in Indonesia for the 2017-2019 Periods

The results of the calculation of the Du Pont System method for Textile Companies in Indonesia for the 2017-2018 periods are as follows.

Table 6. The results of the calculation of the Du Pont System method

Company Code	Variable					Industry Average	Sat
	NPM	TATO	MER	ROI DU PONT	ROE DU PONT		
PT. Polychem Indo, Tbk	-5,367	107,800	121,667	-198.010	-6.033	4.01	%
PT. Argo Pantes, Tbk	-34.933	30.567	-114.833	-8,800	12,800	-23.04	%
PT. Trisula Textile Industries, Tbk	3,633	108,533	7,933	5,900	7,933	26.79	%
PT. Eratex Djaja	-0.067	121,000	-0.167	-0.067	-0.17	24.11	%
PT. Ever Shine	-3,400	54,633	150,400	225,500	-7,833	83.86	%
PT. Indo Rama	4,333	100,800	236,900	5,633	9,833	71.50	%
PT. Asia Pacific	-12,633	236,900	1,247,400	-4,233	-76,967	278.09	%
PT. Pan Brothers, Tbk.	2,215	100,802	241,533	2,254	5,425	70.45	%
PT. Ricky Putra Globalindo, Tbk.	0.904	128,700	339,900	1,156	3,921	94.92	%
PT. Sri Rejeki Isman, Tbk	8,200	52,657	265.733	4.133	10,911	68.33	%
PT. Sunson Textile Manufacturer, Tbk.	-4,200	66,200	267,733	-2,609	-7.069	64.01	%
PT. Trisula	1,900	135,633	168,133	2,582	4,351	62.52	%

International, Tbk.							
PT. Nusantara Inti Corpora, Tbk.	0.700	24,933	171,267	0.174	0.298	39.47	%
Industrial Average	-2.98	97.63	2.39	2.59	-3.28	19.27	%
Industrial Performance	Not Good	Good	Good	Good	Not Good	Good	%

Judging from the calculations above, it can be seen that the average Du Pont System analysis in the Textile Company industry in Indonesia for the 2017-2019 period is 19.27. This shows that the overall condition of the Textile Company industry in Indonesia is said to be performing well.

IV. Conclusion

Based on the results of the Du Pont system analysis with the Times Series Approach (TSA) and the Cross Sectional Approach (CSA) of the textile companies for the 2017-2019 period, they are:

- a. PT. Polychem Indo, Tbk for the 2017-2019 period has an average performance of 4.01% greater than the industry average, with this that the company's performance is said to be good.
- b. PT. PT. Argo Pantes, Tbk Period 2017-2019 has a performance with an average value of -23.04% smaller than the industry average so that the company can be categorized as not good.
- c. PT. Trisula Textile Industries, TBK has an average performance value of 26.79% greater than the industry average so that the company's performance is said to be good.
- d. PT. Eratex Djaja is categorized as having good performance with an average score of 24.11%, meaning that it is above the industry average value.
- e. PT. Ever Shine performed well at 83.86% more than the industry average.
- f. PT.Indo Rama with a performance value of 71.50% greater than the industry average so that the company's performance is said to be good.
- g. The performance of PT.Asia Pacific is 278.09% greater than the industry average so that the company's performance is said to be good.
- h. PT. Pan Brothers, Tbk. has a good performance of 70.45% more than the industry average.
- i. PT. Ricky Putra Globalindo, Tbk. of 94.92% greater than the industry average so that the company's performance is said to be good.
- j. PT. Sri Rejeki Isman, Tbk is 68.33% bigger than the industry average so that the company's performance is said to be good.
- k. PT. Sunson Textile Manufacturer, Tbk is 64.01% higher than the industry average so that the company's performance is said to be good.
- l. PT. Trisula International, Tbk. It is 62.52% bigger than the industry average so that the company's performance is said to be good.
- m. PT. Nusantara Inti Corpora, Tbk 39.47% greater than the industry average so that the company's performance is said to be good.

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