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Du Pont System Analysis To Measure Financial Performance

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Abstract:

Financial statements play a major role in a company which is used as decision making material and performance benchmarking. A successful company should have a good financial performance. The other way around, a company which does not have a good financial performance would impact on the company success. The study employs a ratio analysis called Du Pont System Analysis in which the analysis often applied to measure financial performance on company. Du Pont System Analysis is a combination of financial ratios from ratio activities and profitability in which the result shows interaction from assets profitability of the company. Object of the study is PT. Indosat Tbk in 2016 – 2018 as a Telecommunication company. There are 3 similiar companies used as a comparison to indicate PT Indosat Tbk position which are PT Telekomunikasi Indonesia Tbk, PT XL Axiata Tbk, and Smartfren Telecommunication Tbk. The study draws a conclusion that financial performance of PT Indosat Tbk is good compared to the other similiar companies but PT Telekomunikasi Indonesia has the best performance than the other.

Keywords: *Du Pont System; Telecommunication*

The world is in a globalization era nowadays, as well as the modern economy development. Financial statements play a major role in a company which is used as decision making material and performance benchmarking. The financial statements are basically arranged and published yearly, once in six months, monthly, or in a daily. According to Wikipedia (2018), “The factors that directly connected to financial position are assets, liabilities, and equity. The factors that connected to income statements measurement are

income and expenses.” It indicates that financial statements is an important data and it is even more important to have data comparison from both periods or more included with further analysis. The result would valuable for the company in condition establishing and decision making.

Every company has the same goal to make profit. A successful company should have a good financial performance. The other way around, a company which does not have a good financial

performance would impact on the company success. The study employs a ratio analysis called Du Pont System Analysis in which the analysis often applied to measure financial performance on company.

Du Pont System Analysis is a combination of financial ratios from ratio activities and profitability in which the result shows interaction from assets profitability of the company. PT Indosat Tbk commonly called Indosat Ooredoo provides internet service, multimedia, data communication, communication line for prepaid or behind telephone or phone named IM3 Ooredoo. So, the needs of main modality with a short period should always be ready to develop operational activities of the company to make more profit. In other words, PT Indosat Tbk should always have a good financial performance to keep the existence of the company to have a good profitability in order to invest as a modality.

The study focuses on financial ratios applied in Du Pont System Analysis which are Net Profit Margin (NPM), Return on Investment (ROI), Return on

Equity (ROE), Total Asset Turnover (TATO), dan Equity Multiplier (EM). Financial statements used by company to analyze go public telecommunication company as an object and sample which is on the list of Indonesia Stock Exchange (IDX) in 2016-2018.

METHOD

The researchers use the data of financial statements on the company website in 2016-2018 and it is also used as object and sample of the study. The data comes from company which is in the list of IDX website on level stock and obligation of telecommunication sub sector. The study employs a telecommunication company which is in the list of BEI as a population by using random sampling technique. According to that, the researchers decide PT. Indosat Tbk as the sample of the study whereas PT. Telekomunikasi Indonesia Tbk, PT. XL Axiata Tbk, and Smartfren Telecommunication Tbk as the comparison.

Table 1. The Definition of Operational Variable

Variable	Definition	Indicator	Scale
Return On Equipment (ROE)	a ratio to measure Net Income After Taxes with equity (Kasmir, 2012;204)	$\frac{\text{Net Income after Taxes}}{\text{Equity} \times 100\%}$ NPM x TOTA x EM	Ratio Du Pont
Return On	a return from Total Assets in a	Total sales - Investment	Ratio

Investment (ROI)	company. (Kasmir, 2012;202)	$\text{Investment} \times 100\%$	
		$\text{NPM} \times \text{Perputaran Total}$	Du Pont
Net Profit Margin	a ratio to measure the Net Income After Taxes on Net Sales (Hery, 2012;235)	$\frac{\text{Net Income after Taxes}}{\text{Net Sales Revenue}}$	Ratio
Total Asset Turnover (TATO)	a ratio to measure all the Assets reached in every Assets in rupiah. (Kasmir, 2012;185)	$\frac{\text{Sales} \times 1 \text{ kali}}{\text{Total Assets}}$	Ratio
Equity Multiplier (EM)	a ratio comparison between Total Assets and Total Equity. (Nurdhiana, 2012;147)	$\frac{\text{Total Assets}}{\text{Total Equity}}$	Ratio

Source: (Kasmir, 2012; Hery, 2012; Nurdhiana, 2012)

RESULT AND DISCUSSION

Financial statements play a major role in a company to provide data to company development. The data makes the analysis easier in order to gain information about condition or financial performance

of the company. The financial statements are classified to develop financial ratio to make it accepted in Du Pont System Analysis in order to draw a conclusion from the financial performance measurement. The result by using Du Pont System Analysis is as follows:

PT INDOSAT TBK

1. Net Profit Margin (NPM)

Table 2. The Result of NPM PT. Indosat TBK 2016-2018

Note	Year		
	2016	2017	2018
EAT	1.275.655	1.301.929	-2.085.059
Sales	29.184.624	29.926.098	23.139.551
NPM (%)	4,37%	4,35%	-9,01%

Source: Financial Statements PT Indosat Tbk (Data processed, 2019)

The data shows that in 2016 the company makes profit with the total of 4.37%. While in 2017, the percentage of NPM score shows 4.35% means that the profit decreases with the total

change of 2%. But in 2018, the company loss showed by NPM score reaches -9.01 % with the change of 13.36% from the previous period.

2. Total Asset Turn Over (TATO)

Table 3. The Result of TATO PT. Indosat TBK 2016-2018

Note	Year		
	2016	2017	2018
Sales	29.184.624	29.926.098	23.139.551
Total Assets	50.838.704	50.661.040	553.139.587
TATO (X)	0,57	0,59	0,44

Source: *Financial Statements PT Indosat Tbk (Data processed, 2019)*

The data shows that in 2016 the company reaches TATO score 0.57 means that the company sells 0.57 time from the total assets. In 2017, the company reaches 0.59. While in 2018,

the TATO ratio decreases to 0.44. from the formula, it is showed that the maximal score of Total Asset Turn Over is in 2017 and the minimal score is in 2018.

3. Equity Multiplier (EM)

Table 4. The Result of EM on PT Indosat Tbk in 2016-2018

Note	Year		
	2016	2017	2018
Total Assets	50.838.704	50.661.040	53.139.587
Total Equity	14.177.119	14.815.534	12.136.247
EM (X)	3,59	3,42	4,38

Source: *Financial Statements PT Indosat Tbk (Data processed, 2019)*

According to the data above, in 2016 ratio of the company reaches 3,59 meaning that the company could produce total assets of 3,59 times from the equity. While in 2017, the company decreases 0,17 times with the

total EM score 3,42 times. But in 2018 the company increases 0,96 times in which the ratio is in 4,38 times. From the data, it indicates that the highest Equity Multiplier score is in 2018 and the lowest percentage is in 2017.

4. Return on Investment (ROI) Du Pont

Table 5. The Result of ROI Du Pont System on PT Indosat Tbk in 2016-2018

Note	Year		
	2016	2017	2018
NPM	4,37%	4,35%	-9,01%
TATO	0,57	0,59	0,44
ROI (%)	2,49%	2,57%	-3,96%

Source: *Financial Statements PT Indosat Tbk (Data processed, 2019)*

The data shows that in 2016 the percentage of ROI Du Pont on PT Indosat Tbk reaches 2,49%. While in

2017 the percentage of ROI Du Pont increases 0,08% reaches 2,57%. But in 2018 the percentage decreases 6,53%

with the change of -3,96%. From the data, it indicates that the highest percentage of ROI Du Pont score is in

2017 whereas the lowest percentage is in 2018.

5. Return of Equipment (ROE) Du Pont

Table 6. The Result of ROE Du Pont System on PT Indosat Tbk In 2016-2018

Note	Year		
	2016	2017	2018
ROI	2,49%	2,57%	-3,96%
EM	3,59	3,42	4,38
ROE (%)	8,94%	8,79%	-17,34%

Source: Financial Statements PT Indosat Tbk (Data processed, 2019)

The data indicates that in 2016 the percentage of ROE Du Pont score on PT Indosat Tbk reaches 8,94%. While in 2017 the percentage of ROE Du Pont score decreases 0,15% with the score 8,79%. As well as in 2018, the

percentage of ROE Du Pont score decreases 26,13% with the score -17,34%. From the calculation, it shows that the percentage of ROE Du Pont score on PT Indosat Tbk tends to decrease.

PT INDOSAT TBK COMPARED TO THE SIMILIAR TELECCOMUNICATION COMPANY

1. Net Profit Margin (NPM)

Table 7. The Comparison Result of NPM between PT Indosat Tbk and the Competitor in 2016-2018

Company	NPM (%)			Means
	2016	2017	2018	
PT. Indosat Tbk	4,37	4,35	-9,01	-0,10
PT. Telekomunikasi Indonesia Tbk	25,08	25,50	20,63	23,74
PT. XL Axiata Tbk	1,76	1,64	-14,37	-3,66
Smartfren Telecommunication Tbk	-54,28	-64,75	-64,71	-61,25

Source: Secondary Data (Data Processed, 2019)

According to the above table, it indicates that PT Telekomunikasi Indonesia Tbk is on the highest rank with the means NPM score 23,74% during 2016 – 2018. Whole in the lowest rank is Smartfren Telecommunication Tbk with the

means NPM score -61,25%. In this case, PT Indosat Tbk is on the second position from the similar competitor with the means NPM score -0,10% during 2016-2018 even though the NPM score tends to decrease.

2. Total Assets Turn Over (TATO)

Table 8. The Comparison Result of TATO between PT Indosat Tbk and the Competitor in 2016-2018

Company	TATO (X)			Means
	2016	2017	2018	
PT. Indosat Tbk	0,57	0,59	0,44	0,53
PT. Telekomunikasi Indonesia Tbk	0,65	0,65	0,63	0,64
PT. XL Axiata Tbk	0,39	0,41	0,40	0,40
Smartfren Telecommunication Tbk	0,16	0,19	0,22	0,19

Source: Secondary Data (Data Processed, 2019)

Based on the data in table 8, PT Telekomunikasi Indonesia Tbk is on the highest position with the means TATO score 0,64 times during 2016 – 2018, whereas the lowest position is Smartfren Telecommunication Tbk

with the means TATO score 0,19 times. It means PT Indosat Tbk is on the second position compared to the competitor with the means TATO score 0,53 times during three last years.

3. Equity Multiplier (EM)

Table 9. The Comparison Result of EM between PT Indosat Tbk and the Competitor in 2016 – 2018

Company	EM (X)			Means
	2016	2017	2018	
PT. Indosat Tbk	3,59	3,42	4,38	3,80
PT. Telekomunikasi Indonesia Tbk	1,70	1,77	1,76	1,74
PT. XL Axiata Tbk	2,59	2,60	3,14	2,78
Smartfren Telecommunication Tbk	3,89	2,61	2,03	2,84

Source: Secondary Data (Data Processed, 2019)

According to the table, it shows that PT Indosat Tbk is on the highest rank with the EM score 3,80 times during

2016-2018, while the lowest rate is PT Telekomunikasi Indonesia Tbk with the EM score 1,74 times.

4. ROI Du Pont

Table 10. The Comparison Result of ROI Du Pont between PT Indosat Tbk and the Competitor In 2016 – 2018

Company	ROI Du Pont (%)			Means
	2016	2017	2018	
PT. Indosat Tbk	2,49	2,57	-3,96	0,37
PT. Telekomunikasi Indonesia Tbk	16,30	16,58	13,00	15,29
PT. XL Axiata Tbk	0,69	0,67	-5,75	-1,46
Smartfren Telecommunication Tbk	-8,68	-12,30	-14,24	-11,74

From the above data, it indicates that PT Telekomunikasi Indonesia Tbk is on the highest rank with the means ROI Du Pont score 15,29% during 2016 – 2018, while Smartfren Telecommunication Tbk is on the

lowest position with the means ROI Du Pont score -11,74%. PT Indosat Tbk is on the secondary position compared to the similar competitor with the means ROI Du Pont score 0,37% in last three years.

5. ROE Du Pont

Table 11. The Result of ROE Du Pont between PT Indosat Tbk and the Competitor in 2016-2018

Company	ROE Du Pont (%)			Means
	2016	2017	2018	
PT. Indosat Tbk	8,94	8,79	-17,34	0,13
PT. Telekomunikasi Indonesia Tbk	27,71	29,35	22,88	26,65
PT. XL Axiata Tbk	1,79	1,74	-18,06	-4,84
Smartfren Telecommunication Tbk	-33,77	-32,10	-28,91	-31,59

Source: Secondary Data (Data Processed, 2019)

The above data shows that PT Telekomunikasi Indonesia Tbk is on the highest position with the means ROE Du Pont score 26,65% in 2016 – 2018, while Smartfren Telecommunication Tbk is on the lowest position with the means ROE Du Pont score -31,59%. PT Indosat Tbk is on secondary position compared to the competitor with the means ROE Du Pont score 0,13% during the last three years.

Summary of Calculation Result of Du Pont System Analisis between PT Indosat Tbk and the Competitor Company in 2016-2018

According to the above summary, the researchers draw a conclusion that during 2016 – 2018 PT Indosat Tbk has a good financial performance compared to the other similar competitor companies listed in Indonesia Stock Exchange (IDX).

The hardest competitor for PT Indosat Tbk is PT Telekomunikasi Indonesia Tbk because it has ROE score far above the average industry means.

CONCLUSION

This chapter gives a brief summary of topic which has been discussed in the previous chapters regarding Du Pont System Analysis to measure financial performance of PT Indosat Tbk in 2016-2018. It covers the conclusion:

PT Indosat Tbk Financial Performance in 2016-2018

By using Du Pont System Analysis to measure financial performance of PT Indosat Tbk, it indicates that the financial performance is not as good as it should be. It is shown as in the following results; Considering the result of the research in 2016 – 2018 NPM score has decreased. It is because net sale revenue performed by

the company is greater than the net profit. Considering the result of the research in 2016 – 2018, it indicates that TATO score fluctuates. It is because fluctuation between total assets score and company sale are not stable in exploiting all the assets to achieve sale targets. Considering the result of the research in 2016 – 2018, it indicates that EM score of the company fluctuates. It is because the equity and total assets performed by the company fluctuate. Considering the result of the research in 2016 – 2018, it indicates that ROI score fluctuates. It is because NPM score tends to decrease and TATO score fluctuates. Considering the result of the research in 2016 – 2018, it indicates that Return on Equipment performed by the company tends to decrease in the last three years. In other words, the company has not been able to reduce costs to make a big profit. On the other hand, the company has not also been able to generate sales volume and profit by using all assets they have in all companies and equity shareholders as an investment.

Financial Performance of PT Indosat Tbk Compared to Other Similar Companies in 2016-2018

Considering the Net Profit Margin result in 2016 – 2018, it indicates that financial performance of PT Indosat Tbk is not good but the company also having a good financial performance because it is on the second position compared to the other similar companies which are PT Telekomunikasi Indonesia, PT XL Axiata Tbk, and Smartfren Telecommunication Tbk.

Considering the result of the research in 2016 – 2018, it indicates that Total Asset Turn over of PT Indosat Tbk shows a bad financial performance because it fluctuates from time to time. On the other hand, PT Indosat Tbk has a good financial performance because it is on the second position compared to the other similar companies which are PT Telekomunikasi Indonesia, PT XL Axiata Tbk, and Smartfren Telecommunication Tbk.

From the result, Equity Multiplier of PT Indosat Tbk shows a great financial performance compared to the other similar companies which are PT Telekomunikasi Indonesia, PT XL Axiata Tbk, dan Smartfren Telecommunication Tbk.

Considering the result of the research in 2016 – 2018, it indicates that Return on Investment of PT Indosat Tbk shows a bad financial performance because it fluctuates from time to time. On the other hand, PT Indosat Tbk has a good financial performance because it is on the second position compared to the other similar companies which are PT Telekomunikasi Indonesia, PT XL Axiata Tbk, and Smartfren Telecommunication Tbk.

Considering the result of the research in 2016 – 2018, it indicates that Return on Equipment of PT Indosat Tbk shows a bad financial performance because it decreases in the last three years. On the other hand, PT Indosat Tbk has a good financial performance because it is on the second position compared to the other similar companies which are PT

Telekomunikasi Indonesia, PT XL Axiata Tbk, and Smartfren Telecommunication Tbk.

SUGGESTION

PT Indosat Tbk as the owner and the financial performance publisher should have pay more attention to the components that have a great impact on Return On Equipment (ROE) such as Total Asset Turn Over (TATO) and Equity Multiplier (EM) especially Net Profit Margin (NPM). It is because Net Profit Margin (NPM) plays a major role in increasing sales and reducing costs incurred by the company to have maximum efficiency that impacts on the Return On Equipment (ROE) and other ratios.

It is suggested to have more periods in conducting research in order to draw a greater conclusion and to gain a better result if other researchers deciding to have different or similar theme and method.

REFERENCES

- Alif I F, Achmad H. (2018). *Analisis Kinerja Keuangan Perusahaan Dengan Metode Dupont System Pada Perusahaan Farmasi Di Bursa Efek Indonesia: Studi Pada Perusahaan PT. Merck, Tbk. Tahun 2012-2016*. Jurnal Administrasi Bisnis, Vol 61, No. 3.
- Bursa Efek Indonesia - <https://www.idx.co.id/>
- Halim, Abdul dan Sarwoko. (2010). *Manajemen Keuangan (Dasar-dasar PembelanjaanPerusahaan)*.Yogya karta: YKPN
- Hani, Syafrida. (2014). *Teknik Analisa Laporan Keuangan*. Medan :In Media
- Hery. 2015. *AnalisisLaporan Keuangan. Edisi 1*. Yogyakarta: Center For Academic Publishing Services
https://id.wikipedia.org/wiki/Laporan_keuangan , diakses pada tgl 23/11/2019 pukul 09.11 WIB
<https://indosatooredoo.com/id/investor-relation/informasi-keuangan/laporan-keuangan> diakses pada tgl 21/11/2019 pukul 22.24 WIB
- Kasmir. (2012). *Analisis Laporan Keuangan*. Jakarta : PT Raja Grafindo Persada.
- Sugiyono. (2015). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung:Alfabeta
- Yuni Wulandari, Pipit dan Nurdhiana. (2012). *Pengaruh Net Profit Margin, Total Assets Turnover, dan Equity Multiplier terhadap Return On Equity pada Perusahaan Food and Beverage yang Terdaftar di BEI Periode 2008-2010*, Vol 14, No.2