

Analysis of Financial performance through Do Pont Model: Case study of selected five IT companies of BSE listed in India

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Abstract: In this research paper an attempt has been made to study Do Pont ratio analysis of five selected companies. Secondary data with the sample size of five have been used. Selected companies are major contributors in the field of information technology. Researcher has also tested hypotheses with the help of ANOVA test also found the relationship between ratios through correlation matrix. The result of the research says that HCL technology Ltd., Tata consultancy service Ltd. and Wipro Ltd. are outstanding companies which is validated by the result of ANOVA test because the result is significant which means that all companies performance are not similar. And ROA is correlated with PBDIT to net assets as well as PAT to PBIDT because which are significant at 5 % level of significance.

Key Words: Return on Assets, Do Pont ratio, Profit before depreciation-interest and tax, Profit after Tax, Information technology, and ANOVA test.

1. INTRODUCTION:

Information technology includes utilization of computers to storage of information and data in form of electronic mode, transmit, manipulate data/information, and retrieve. Often in the relevant to corporate, business and enterprises. IT is co relevant with a subset of information and communications technology

In 21st century in strategic business plan the such, e-services and several products relevant to an economy are connected with information and technology, including computer software- hardware, telecommunication equipment, instrument, internet, and e-commerce.

The industries of information technology are very much important to economic sectors for a variety of reasons to all the corporate relevant various services.

Indiana IT sector is high growing industry sector in the India. IT companies create very good valuable brand of equity for itself in the outside of the India. The Indian IT industry provides software and IT relevant services. India has so many largest companies in IT sector to beat global IT races. Development of IT industries of India and its' contribution to world's information is of highest reputation. Indian metro and mega cities like Ahmadabad, Bangalore, Puna, Haiydrabad, Mumbai, Delhi, Calcutta and Chennai have famous destination for collaborate with big corporate. Like, Microsoft, DELL, HP, GE etc. and such Indian multinational companies like Tech Mahindra Ltd., HCL Technology Ltd., Wipro Ltd., TCS Ltd. Infosys tech. Ltd, etc. IT industries of India played the major role in placing the nation on International map.

1.1 DuPont Analysis

DuPont analysis is a method of performance measurement that was started to the DuPont Corporation in the 1920s. With this method, assets are measured at their gross book value rather than at net book value to produce a higher return on equity (ROE). It is also known as DuPont identity. The Du Pont Control Chart is called as such because Du Pont Company of the USA first used it. The various factors affecting the Return on Investment (ROI) are illustrated through this chart. ROI represents the earning power of the business.

(a) Net Profit ratio and

(b) Capital Turnover Ratio.

A change in any one of the two ratios will change the business earning power (i.e., ROI), and they are affected to many factors. The chart shown below exhibits that ROI is affected to a number of factors.

Any change in these factors will affect the return on capital employed. For example, if the cost of goods sold decreases without any corresponding decrease in selling price, the net profit will increase and therefore, ROI will also increase.

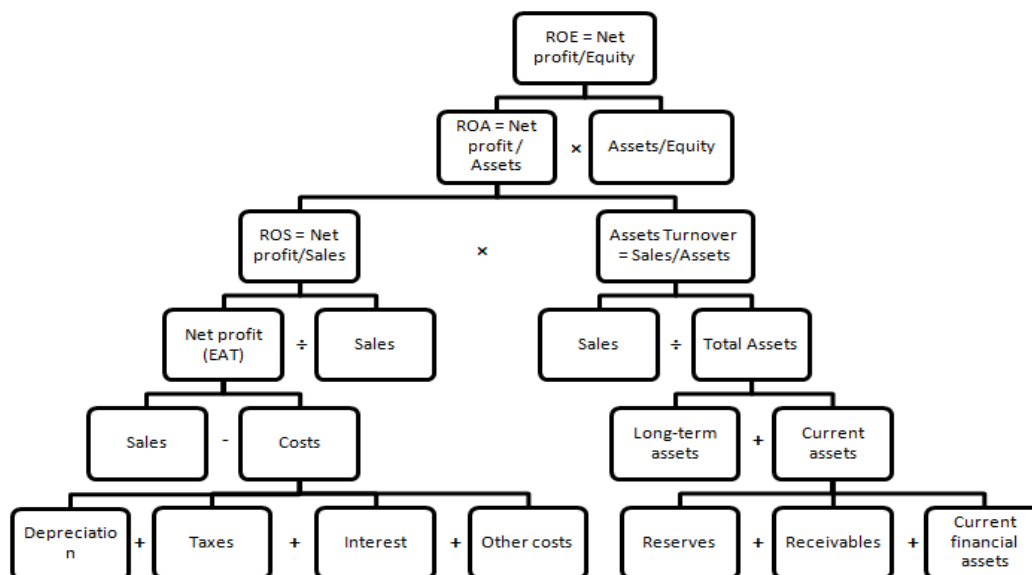
Similarly if there is decrease in working capital, the total capital employed will decrease and therefore, in the absence of any decrease in the net profit, ROI will decrease.

The Du Pont Chart helps management to identify the areas of problems, which affect profit, In other words, management can easily visualize the different forces affecting profits, and profits could be improved either to putting

capital into effective use, which will result in higher turnover ratio, or to better sales efforts, which will result in higher profit ratio.

The same rate of return could be obtained either to a higher net profit ratio but low turnover ratio, or to a higher turnover ratio but a low net profit ratio.

1.2 Components



DuPont analysis breaks ROE into its constituent components to determine which of these components is most responsible for changes in ROE.

Net margin:

Expressed as a percentage, net margin is the revenue that remains after subtracting all operating expenses, taxes, and interest and preferred stock dividends from a company's total revenue.

Asset turnover ratio:

This ratio is an efficiency measurement used to determine how effectively a company uses its assets to generate revenue. The formula for calculating asset turnover ratio is total revenue divided to total assets. As a general rule, the higher the resulting number, the better the company is performing.

Equity multiplier:

This ratio measures financial leverage. To comparing total assets to total stockholders' equity, the equity multiplier indicates whether a company finances the purchase of assets primarily through debt or equity. The higher the equity multiplier, the more leveraged the company, or the more debt it has in relation to its total assets.

DuPont analysis involves examining changes in these figures over time and matching them to corresponding changes in ROE. To doing so, analysts can determine whether operating efficiency, asset use efficiency or leverage is most responsible for ROE variations.

2. RESEARCH METHODOLOGY:

The title of the research paper is "Analysis of financial performance through profitability ratios: A case study of selected IT companies of BSE listed in India". Researcher has selected secondary data for the research. Sources of secondary data are annual reports, Journals, news papers, magazines and websites like moneycontrol, moneypore and site of the companies. Time period of the study is of five years from 2013 to 2017. Researcher has conveniently selected five companies as sample. The names of the companies are HCL technology Ltd., Infosys Ltd., Tata consultancy service Ltd., Tech Mahindra Ltd. and Wipro Ltd.

Researcher has used accounting ratio as analytical tools and statistical technique, like mean, standard deviation, deviation, variance ANOVA test and Pearson correlation.

PBDIT/Sales ratio	2013	2014	2015	2016	2017	Mean	Min	Max
HCL technology ltd.	45.61	45.44	46.98	48.31	40.45	45.358	40.45	48.31

Infosys technology Ltd.	34.07	37.46	34.67	34.19	34.41	34.96	34.07	37.46
Tata consultancy service Ltd.	38.11	35.37	35.88	34.15	34.52	35.606	34.15	38.11
Tech Mahindra Ltd.	18.05	23.02	18.01	21.32	19.7	20.02	18.01	23.02
Wipro Ltd.	24.85	27.65	28.39	26.9	26.34	26.826	24.85	28.39
Industry Average	32.138	33.788	32.786	32.974	31.084	32.554	31.08	33.788

(Source: www. moneypore.com)

Chart No.1 PBDIT to sales ratio

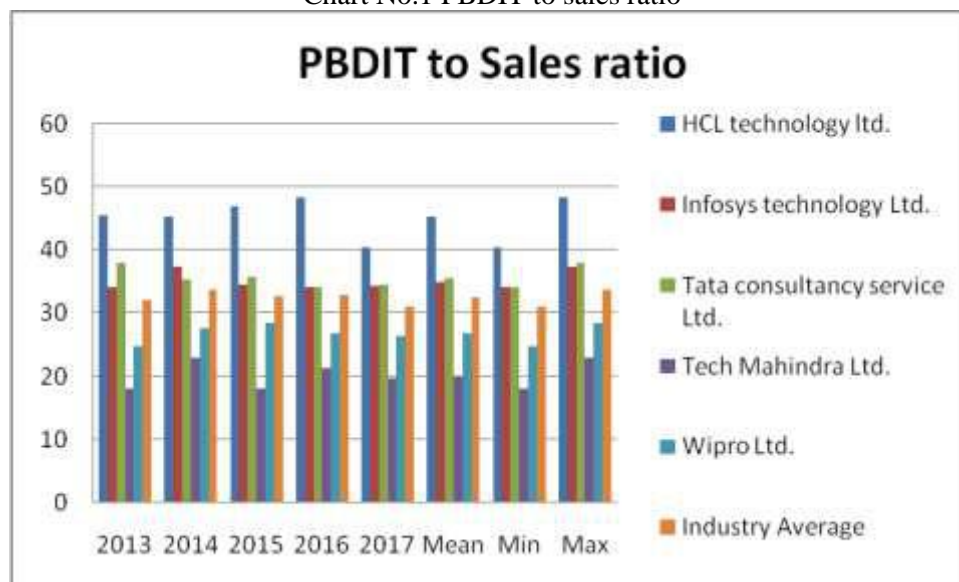


Table no. 1 shows profit before depreciation, interest and tax to sales ratio. Average ratio of HCL technology Ltd. was 45.36 with the range between 40.45 to 48.31. Average ratio of this company was higher than industry average. This ratio has fluctuated trend.

Mean of PBDIT/Sales ratio of Infosys technology Ltd. was 34.96 which ranged between 34.07 to 37.46. Average ratio of this was higher than industry average. This ratio has fluctuated trend.

Average PBDIT/Sales ratio of Tata consultancy service was 35.61 with the range between 34.15 to 38.11. Average ratio was higher than industry average. This ratio has fluctuated trend.

Mean of PBDIT/Sales ratio of Tech Mahindra Ltd. was 20.02 with the range between 18.01 to 23.02. Average ratio of this was lower than industry average. This ratio has fluctuated trend.

Average PBDIT/Sales ratio of Wipro Ltd. was 26.83 with the range between 24.85 to 28.39. Average ratio was lower than industry average. This ratio has fluctuated trend.

3. Hypothesis Testing: Anova Test

- **H₀:** There is no significant difference between the profit before depreciation, interest and tax to sales ratio of selected information technology companies of BSE listed in India during the period of study.
- **H_a:** There is a significant difference between the profit before depreciation, interest and tax to sales ratio of selected information technology companies of BSE listed in India during the period of study.
- Level of significance: 5 %
- Sample size: 5 companies.

Source of Variation	SS	df	MS	F	F crit
Between Companies	1844.79	4.00	461.20	116.45	2.87
Within Companies	79.21	20.00	3.96		
Total	1924.00	24.00			

(Source: Computed by Researcher)

Table no. 2 is of Anova table of profit before depreciation, interest and tax to sales ratio of selected information technology companies of BSE listed in India. The calculated value is 116.45 and critical value is 2.87. Calculated value is more than critical value. Hence, null hypothesis is rejected and alternative hypothesis is selected. The difference is significant.

Co/years	2013	2014	2015	2016	2017	Mean	Min	Max
HCL technology ltd.	0.73	0.61	0.86	0.97	1.09	0.852	0.61	1.09
Infosys technology Ltd.	1.04	0.98	0.88	0.87	0.97	0.948	0.87	1.04
Tata consultancy service Ltd.	1.43	1.58	1.3	1.17	1.27	1.35	1.17	1.58
Tech Mahindra Ltd.	1	1.51	1.49	1.24	1.21	1.29	1	1.51
Wipro Ltd.	1.09	1.13	1	0.91	0.85	0.996	0.85	1.13
Industry Average	1.058	1.162	1.106	1.032	1.078	1.0872	1.032	1.162

(Source: www. moneypore.com)

Chart No.2 Sales to net assets ratio

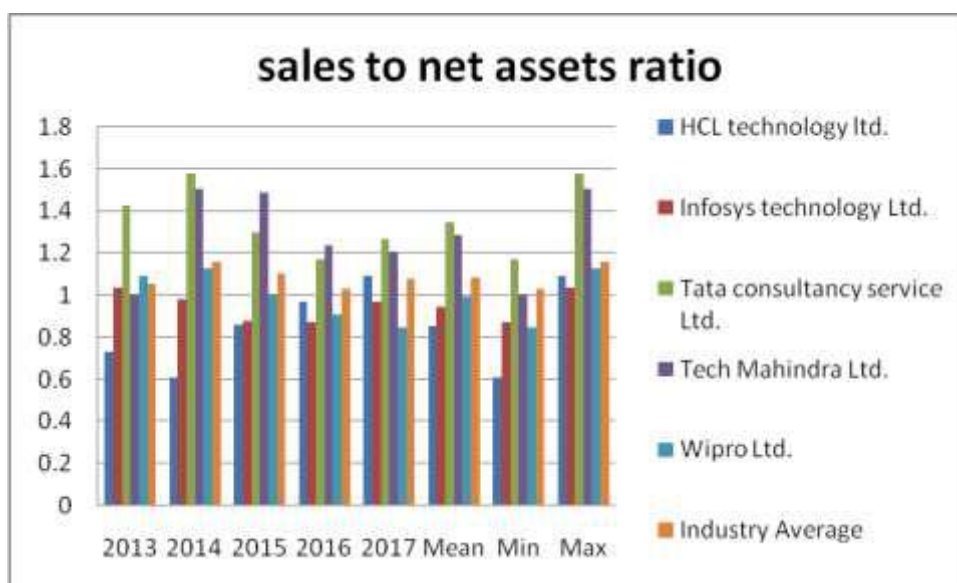


Table no. 3 shows sales to net assets ratio of HCL technology Ltd. Average ratio was 0.85 with the ranged between 0.61 to 1.09. average ratio was below industry average. This ratio has fluctuated trend.

Mean of sales to net assets ratio of Infosys technology Ltd.. was 0.95 with the ranged between 0.81 to 1.04. average ratio was lower than industry average. This ratio has fluctuated trend.

Average of sales to net assets ratio of Tata consultancy service was 1.35 with the ranged between 1.17 to 1.58. Average ratio was higher than industry average. This ratio has fluctuated trend.

Mean of sales to net assets ratio of Tech Mahindra Ltd. was 1.29 with the ranged between 1.00 to 1.51 average ratio was higher than industry average. This ratio has fluctuated trend.

Average of sales to net assets ratio of Wipro Ltd. was 0.996 with the ranged between 0.85 to 1.13. average ratio was lower than industry average. This ratio has fluctuated trend.

- **H₀**: There is no significant deference between the sales tonet assets ratio of selected information technology companies of BSE listed in India during the period of study.
- **H_a**: There is no significant deference between the sales tonet assets ratio of selected information technology companies of BSE listed in India during the period of study.
- Level of significance: 5 %
- Sample size: 5 companies.

Source of Variation	SS	df	MS	F	F crit
Between Companies	0.97	4.00	0.24	9.62	2.87
Within Companies	0.50	20.00	0.03		
Total	1.47	24.00			

(Source: Computed by Researcher)

Table no. 4 is of Anova table of sales to net assets ratio of selected information technology companies of BSE listed in India. The calculated value is 9.62 and critical value is 2.87 calculated value is more than critical value. Hence, null hypothesis is rejected and alternative hypothesis is selected. The deference is significant.

PBDIT/net assets	2013	2014	2015	2016	2017	Mean	Min	Max
HCL technology ltd.	0.33	0.28	0.4	0.47	0.44	0.384	0.28	0.47
Infosys technology Ltd.	0.36	0.37	0.31	0.3	0.33	0.334	0.3	0.37
Tata consultancy service Ltd.	0.55	0.56	0.47	0.4	0.44	0.484	0.4	0.56
Tech Mahindra Ltd.	0.18	0.35	0.27	0.26	0.24	0.26	0.18	0.35
Wipro Ltd.	0.27	0.31	0.29	0.24	0.22	0.266	0.22	0.31
Industry Average	0.338	0.374	0.348	0.334	0.334	0.3456	0.334	0.374

(Source: www. moneypore.com)

Chart No.3 PBDIT to net assets ratio

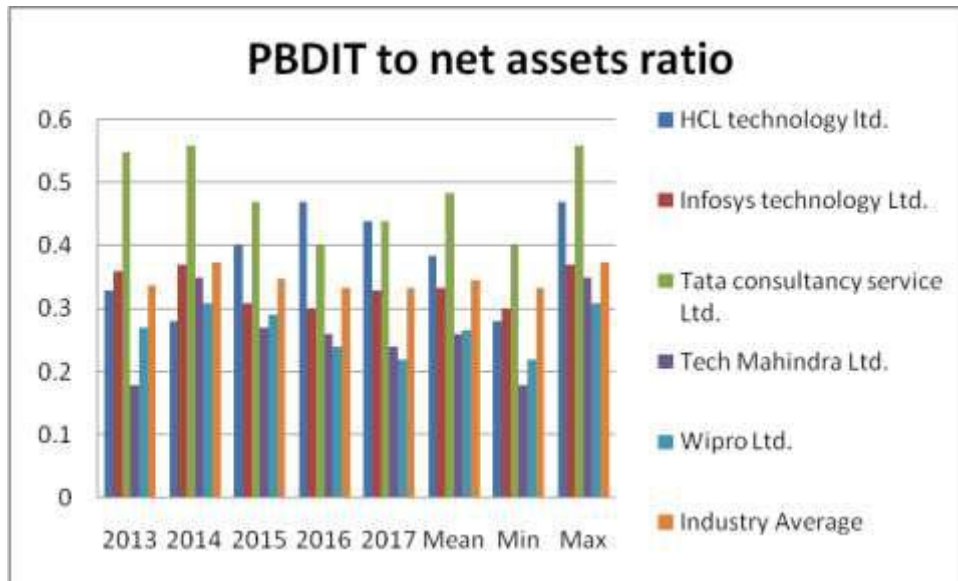


Table no. 5 shows profit before depreciation, interest and tax to net assets ratio. Average of HCL technology Ltd. was 0.38 with the ranged between 0.28 to 0.47. average ratio was higher industry average. This ratio has fluctuated trend.

Mean of profit before depreciation, interest and tax to net assets ratio of Infosys technology Ltd.. was 0.33 with the ranged between 0.30 to 0.37. Average ratio was lower than industry average. This ratio has fluctuated trend.

Average of profit before depreciation, interest and tax to net assets ratio of Tata consultancy service was 0.48 with the ranged between 0.40 to 0.56. Average ratio was higher than industry average. This ratio has fluctuated trend.

Mean of profit before depreciation, interest and tax to net assets ratio of Tech Mahindra Ltd. was 0.26 with the ranged between 0.18 to 0.35 average ratio was higher than industry average. This ratio has fluctuated trend.

Mean profit before depreciation, interest and tax to net assets ratio of Wipro Ltd. was 0.27 average with the ranged between 0.22 to 0.31. average ratio was lower than industry average. This ratio has fluctuated trend.

- **H₀**: There is no significant deference between the profit before depreciation, interest and tax to net assets ratio of selected information technology companies of BSE listed in India during the period of study.
- **H_a**: There is no significant deference between the profit before depreciation, interest and tax to net assets ratio of selected information technology companies of BSE listed in India during the period of study.
- Level of significance: 5 %
- Sample size: 5 companies.

Source of Variation	SS	df	MS	F	F crit
Between Companies	0.17	4.00	0.04	12.68	2.87
Within Companies	0.07	20.00	0.00		
Total	0.24	24.00			

(Source: Computed by Researcher)

Table no.6 is of Anova table of profit before depreciation, interest and tax tonet assets ratio of selected information technology companies of BSE listed in India. The calculated value is 12.68 and critical value is 2.87 calculated value is more than critical value. Hence, null hypothesis is rejected and alternative hypothesis is selected. The deference is significant.

PAT/PBIDT	2013	2014	2015	2016	2017	Mean	Min	Max
HCL technology ltd.	78	77.31	78.74	75.09	73.17	76.462	73.17	78.74
Infosys technology Ltd.	67.47	68.65	67.82	68.17	75.79	69.58	67.47	75.79
Tata consultancy service Ltd.	74.95	74	74.89	74.72	75.1	74.732	74	75.1
Tech Mahindra Ltd.	60.24	71.58	65.36	70.96	66.76	66.98	60.24	71.58
Wipro Ltd.	68.41	68.91	70.04	68.23	67.3	68.578	67.3	70.04
Industry Average	69.814	72.09	71.37	71.434	71.624	71.266	69.81	72.09

(Source: www. moneypore.com)

Chart No.4 PAT to PBIDT ratio

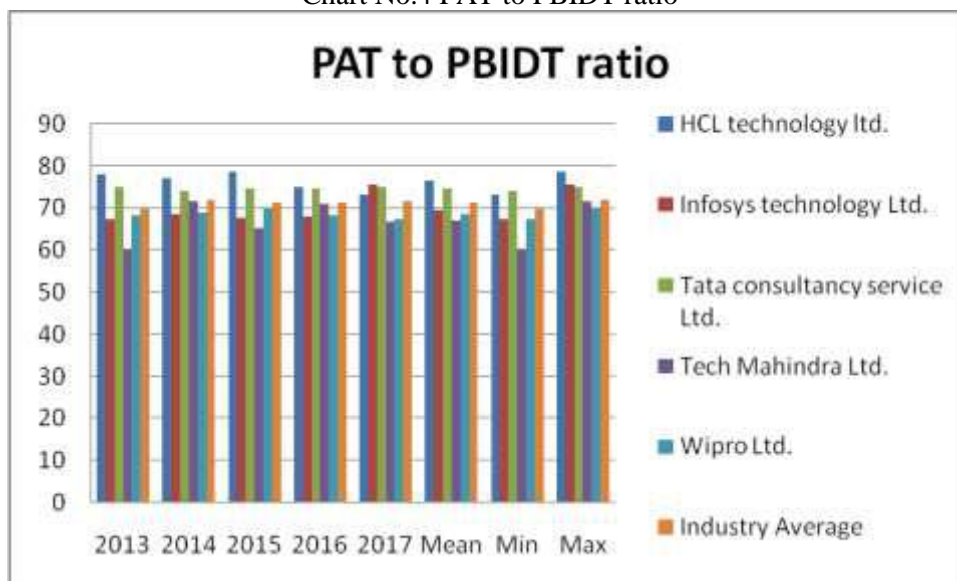


Table no.7 shows Mean of profit after tax to profit before depreciation, interest and tax ratio of HCL technology Ltd. was 76.46 with the ranged between 73.17 to 78.74. Average ratio was higher industry average. This ratio has fluctuated trend.

Mean of profit after tax to profit before depreciation, interest and tax ratio of Infosys technology Ltd.. was 69.58 with the ranged between 67.47 to 75.79. average ratio was lower than industry average. This ratio has fluctuated trend.

Average of profit after tax to profit before depreciation, interest and tax ratio of Tata consultancy service was 74.73 with the ranged between 74.0 to 75.10. Average ratio was higher than industry average. This ratio has fluctuated trend. profit after tax to profit before depreciation, interest and tax ratio of Tech Mahindra Ltd. was 66.98 average with the ranged between 60.24 to 71.58 average ratio was higher than industry average. This ratio has fluctuated trend.

Average of profit after tax to profit before depreciation, interest and tax ratio of Wipro Ltd. was 68.58 with the ranged between 67.30 to 70.04. Average ratio was lower than industry average. This ratio has fluctuated trend.

- H_0 : There is no significant deference between the profit after tax to profit before depreciation, interest and tax ratio of selected information technology companies of BSE listed in India during the period of study.
- H_a : There is no significant deference between the profit after tax to profit before depreciation, interest and tax ratio of selected information technology companies of BSE listed in India during the period of study.
- Level of significance: 5 %
- Sample size: 5 companies.

Source of Variation	SS	df	MS	F	F crit
Between Companies	337.25	4.00	84.31	10.55	2.87
Within Companies	159.84	20.00	7.99		
Total	497.08	24.00			

(Source: Computed by Researcher)

Table no.8 is of Anova table of profit after tax to profit before depreciation, interest and tax ratio of selected information technology companies of BSE listed in India. The calculated value is 10.55 and critical value is 2.87

calculated value is more than critical value. Hence, null hypothesis is rejected and alternative hypothesis is selected. The deference is significant.

NET assets/Net worth	2013	2014	2015	2016	2017	Mean	Min	Max
HCL technology ltd.	1.02	1.03	1.03	1.08	1.12	1.056	1.02	1.12
Infosys technology Ltd.	1.01	1	1	1	1	1.002	1	1.01
Tata consultancy service Ltd.	1.02	1.02	1.01	1.02	1.01	1.016	1.01	1.02
Tech Mahindra Ltd.	1.43	1.26	1.14	1.13	1.13	1.218	1.13	1.43
Wipro Ltd.	1.26	1.17	1.18	1.2	1.16	1.194	1.16	1.26
Industry Average	1.148	1.096	1.072	1.086	1.084	1.0972	1.072	1.148

(Source: www. moneypore.com)

Chart No.5 Net assets to net worth ratio

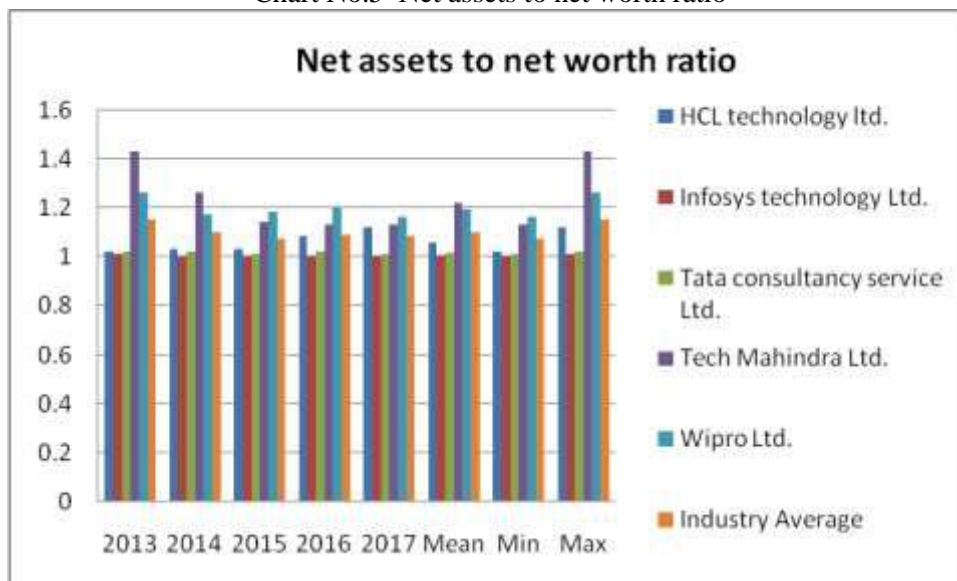


Table no.9 shows net assets to net worth ratio Mean of HCL technology Ltd. was 1.06 with the ranged between 1.02 to 1.12. average ratio was lower industry average. This ratio has fluctuated trend.

Mean of Net assets to net worth ratio of Infosys technology Ltd. was 1.00 with the ranged between 1.00 to 1.01. average ratio was lower than industry average. This ratio has fluctuated trend.

Average of net assets to net worth ratio of Tata consultancy service was 1.02 with the ranged between 1.01 to 1.03. average ratio was lower than industry average. This ratio has fluctuated trend.

Mean of net assets to net worth ratio of Tech Mahindra Ltd. was 1.22 with the ranged between 1.13 to 1.43 average ratio was higher than industry average. This ratio has fluctuated trend.

Average of net assets to net worth ratio of Wipro Ltd. was 1.19 with the ranged between 1.16 to 1.26. average ratio was higher than industry average. This ratio has fluctuated trend.

- **H₀**: There is no significant deference between the net assets to net worth ratio of selected information technology companies of BSE listed in India during the period of study.
- **H_a**: There is no significant deference between the net assets to net worth ratio of selected information technology companies of BSE listed in India during the period of study.
- Level of significance: 5 %
- Sample size: 5 companies.

Source of Variation	SS	df	MS	F	F crit
Between Companies	0.21	4.00	0.05	12.58	2.87
Within Companies	0.08	20.00	0.00		
Total	0.29	24.00			

(Source: Computed by Researcher)

Table no.10 is of Anova table of net assets to net worth ratio of selected information technology companies of BSE listed in India. The calculated value is 12.58 and critical value is 2.87 calculated value is more than critical value. Hence, null hypothesis is rejected and alternative hypothesis is selected. The deference is significant.

ROE	2013	2014	2015	2016	2017	Mean	Min	Max
HCL technology ltd.	28.96	30.77	36.10	46.05	43.99	37.17	28.96	46.05
Infosys technology Ltd.	26.09	26.98	23.26	21.41	24.57	24.46	21.41	26.98
Tata consultancy service Ltd.	48.22	43.05	41.81	33.21	32.92	39.84	32.92	48.22
Tech Mahindra Ltd.	17.11	42.05	22.74	24.18	19.12	25.04	17.11	42.05
Wipro Ltd.	23.26	27.57	25.61	21.62	18.56	23.32	18.56	27.57
Industry Average	28.73	34.08	29.90	29.29	27.83	29.97	27.83	34.08

(Source: www. moneypore.com)

Chart No.6 Return on equity ratio

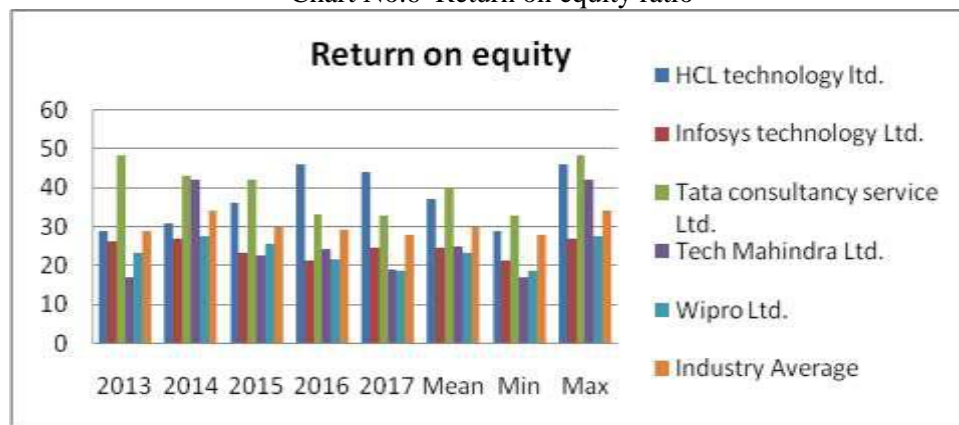


Table no.11 shows return on equity ratio, average of HCL technology Ltd. was 37.17 with the ranged between 28.96 to 46.05. average ratio was lower industry average. This ratio has fluctuated trend.

Mean of return on equity ratio of Infosys technology Ltd.. was 24.46 with the ranged between 21.41 to 26.98. average ratio was lower than industry average. This ratio has fluctuated trend.

Mean of return on equity ratio of Tata consultancy service was 39.84 with the ranged between 32.92 to 48.22. average ratio was higher than industry average. This ratio has fluctuated trend.

Average of return on equity ratio of Tech Mahindra Ltd. was 25.04 with the ranged between 17.11 to 42.05 average ratio was higher than industry average. This ratio has fluctuated trend.

Mean of return on equity ratio of Wipro Ltd. was 23.32 with the ranged between 18.56 to 27.57. average ratio was lower than industry average. This ratio has fluctuated trend.

- **H₀**: There is no significant deference between the return on equity ratio of selected information technology companies of BSE listed in India during the period of study.
- **H_a**: There is no significant deference between return on equity ratio of selected information technology companies of BSE listed in India during the period of study.
- Level of significance: 5 %
- Sample size: 5 companies.

Source of Variation	SS	df	MS	F	F crit
Between Companies	1240.83	4.00	310.21	7.11	2.87
Within Companies	873.05	20.00	43.65		
Total	2113.88	24.00			

(Source: Computed by Researcher)

Table no.12 is of Anova table of return on equity ratio of selected information technology companies of BSE listed in India. The calculated value is 7.11 and critical value is 2.87 calculated value is more than critical value. Hence, null hypothesis is rejected and alternative hypothesis is selected. The deference is significant.

Name of Companies	PBIDT/ sales	Sales/ net assets	PBDIT/ net assets	PAT/ PBIDT	Net assets/	ROE (%)
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	(%)		(%)	(%)	net worth	
HCL technology ltd.	45.36	0.85	0.38	76.46	1.06	37.17
Infosys technology Ltd.	34.96	0.95	0.33	69.58	1.00	24.46
Tata consultancy service Ltd.	35.61	1.35	0.48	74.73	1.02	39.84
Tech Mahindra Ltd.	20.02	1.29	0.26	66.98	1.22	25.04
Wipro Ltd.	26.83	1.00	0.27	68.58	1.19	23.32
Industry Average	32.55	1.09	0.35	71.27	1.10	29.97

(Source: www.money.pore.com)

Table No. 14 Karl Pearson correlations between various ratios

Correlations

		pbdit/sales	sales/net assets	pbdit/net assets	pat/pbidt	net assets/net worth	ROE
pbdit/sales	Pearson Correlation	1	-.546	.670	.901*	-.781	.691
	Sig. (2-tailed)		.341	.216	.037	.119	.197
	N	5	5	5	5	5	5
sales/net assets	Pearson Correlation	-.546	1	.234	-.201	.211	.177
	Sig. (2-tailed)	.341		.705	.746	.733	.776
	N	5	5	5	5	5	5
pbdit/net assets	Pearson Correlation	.670	.234	1	.838	-.762	.910*
	Sig. (2-tailed)	.216	.705		.076	.134	.032
	N	5	5	5	5	5	5
pat/pbidt	Pearson Correlation	.901*	-.201	.838	1	-.649	.927*
	Sig. (2-tailed)	.037	.746	.076		.236	.023
	N	5	5	5	5	5	5
net assets/net worth	Pearson Correlation	-.781	.211	-.762	-.649	1	-.542
	Sig. (2-tailed)	.119	.733	.134	.236		.346
	N	5	5	5	5	5	5
ROE	Pearson Correlation	.691	.177	.910*	.927*	-.542	1
	Sig. (2-tailed)	.197	.776	.032	.023	.346	
	N	5	5	5	5	5	5

*. Correlation is significant at the 0.05 level (2-tailed).

Table no.14 shows correlation matrix of DuPont ratios. Return on equity is positively correlated with PBDIT to sale. But relationship is insignificant at 5 % level of significant. Return on equity has also positively correlated with sales to net assets. But relationship is insignificant at 5 % level of significant. Return on equity is perfectly correlated with PBDIT to net assets (0.910) which is also significant at 5 % level of significance. Return on equity has also perfect co relationship with PAT to PBDIT (0.927) which is also proved significant. Return on equity is negatively correlated with net assets to net worth. But relationship is insignificant at 5% level of significant.

PBDIT to sales ratio is negatively correlated with sales to net assets. But relationship is insignificant at 5% level of significant. PBDIT to net assets ratio is positively correlated with PBDIT to net assets. But relationship is insignificant at 5% level of significant. PBDIT to sales ratio is perfectly correlated with PAT to PBIDT (0.901) which is also significant at 5 % level of significance. PBDIT to sales ratio is negatively correlated with net assets to net worth. But relationship is insignificant at 5% level of significant.

Sales to net assets ratio is positively correlated with PBDIT to net assets. But relationship is insignificant at 5% level of significant. Sales to net assets ratio is negatively correlated with PAT to PBIDT. But relationship is insignificant at 5% level of significant. Sales to net assets ratio is positively correlated with net assets to net worth ratio. But relationship is insignificant at 5 % level of significance

PBDIT to net assets ratio is positively correlated with PAT to PBIDT. But relationship is insignificant at 5% level of significant. PBDIT to net assets ratio is negatively correlated with net assets to net worth. But relationship is insignificant at 5% level of significant. PAT to PBIDT ratio is negatively correlated with net assets to net worth. But relationship is insignificant at 5% level of significant.

4. FINDINGS AND SUGGESTIONS:

Analysis of the profit before depreciation, interest and tax to sales ratio suggested that the highest of HCL technology Ltd.(45.36), than followed by Tata consultancy service Ltd.(35.61), Infosys technology Ltd.(34.96) and rest of companies have profit before depreciation, interest and tax to sales ratio below to industry average which shows that liquidity position of these companies are not very good. Result of Anova table profit before depreciation, interest and tax to sales ratio resulted significant difference among the selected IT companies of BSE listed in India.

Analysis of the sales to net assets ratio suggested that the highest of Tata consultancy service Ltd.(1.35) than followed by Tech Mahindra Ltd.(1.29) and rest of companies have sales to net assets ratio below to industry average which shows that liquidity position of these companies are not very good. Result of Anova table of sales to net assets ratio resulted significant difference among the selected IT companies of BSE listed in India.

Analysis of the profit before depreciation, interest and tax to net assets ratio suggested that the highest of Tata consultancy service Ltd.(0.484) than followed by HCL technology Ltd.(0.384) and rest of companies have profit before depreciation, interest and tax to net assets ratio below to industry average which shows that liquidity position of these companies are not very good. Result of Anova table of profit before depreciation, interest and tax to net assets ratio resulted significant difference among the selected IT companies of BSE listed in India.

Analysis of the Profit after tax to profit before depreciation, interest and tax ratio suggested that the highest of HCL technology Ltd.(76.462) than followed by Tata consultancy service Ltd.(74.732) and rest of companies have profit before depreciation, interest and tax to net assets ratio below to industry average which shows that liquidity position of these companies are not very good. Result of Anova table of Profit after tax to profit before depreciation, interest and tax ratio resulted significant difference among the selected IT companies of BSE listed in India.

Analysis of the return on equity suggested that the highest of Tata consultancy service Ltd.(39.84) than followed by HCL technology Ltd.(37.17) and rest of companies have profit before depreciation, interest and tax to net assets ratio below to industry average which shows that liquidity position of these companies are not very good. Result of Anova table of return on equity ratio resulted significant difference among the selected IT companies of BSE listed in India.

Analysis of the correlation matrix of DuPont ratios, Return on equity is perfectly correlated with PBDIT to net assets (0.910) which is also significant at 5 % level of significance. Return on equity has also perfect co relationship with PAT to PBDIT (0.927) which is also proved significant and PBDIT to sales ratio is perfectly correlated with PAT to PBIDT (0.901) which is also significant at 5 % level of significance.

So far as concern to ratios of DuPont chart, Tata consultancy service Ltd., HCL technology Ltd. and Wipro Ltd. stood at very good position during the study period, since its ROA, ROI, RONW, NP ratios, It shows strengthen financial condition. Company should try to maintain this position over a period of time.

5. CONCLUSION:

In this paper researcher has try to summarize each ratio of do pont chart and findings of the study, and try to give suggestion as per knowledge of the researcher. In the present study researcher has conclude that overall performance of selected IT companies of BSE listed in India are satisfactory.

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