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Financial Analysis of Pharmaceutical Companies in India

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Abstract: As the global third-largest industry by volume and thirteenth largest in terms of value, Indian Pharmaceutical industry is likely to become leader in manufacturing soon. In last 30 years' Indian pharmaceutical industry has risen as one of the major leader in drug production from almost nothing. Earlier multinational companies used to import drugs either in fully formulated or bulk form. The credit for this steep curve in growth can be given to the double benefit, firstly the raised in domestic consumption capacity of India and secondly to the different export opportunities available in India. It is one of the major donation to Indian economy with a growth percentage of 7-8%. Indian pharmaceutical industry is predicted to out perform the global pharmaceutical industry expected to grow at 5% per annum as it is presuming to grow at 15 per cent per annum between 2014 and 2019. Indian industry is expected to grow to US $ 55 billion by 2020. In this paper we are going to discuss about Du point analysis on 5 leading companies in the pharmaceutical industry in India. Starting from Cadila Healthcare Ltd. Torrent Pharmaceuticals Ltd, Divis Laboratories Ltd., IPCA laboratory ltd, Biocon Ltd.
Keywords: DuPont's 3-point, financial ratios.

I. INTRODUCTION

India is the bigger producer of generic drugs globally. Indian pharmaceutical sector industry supplies over 50 per cent of world demand for different types vaccines, 40 per cent of generic demand in the US and 25 per cent of all medicine in UK.

India enjoys higher position in the global pharmaceuticals sector. The country also has a large bulk of scientists and engineers who have the potential to steer the industry onwards to an even higher level. In Present over 80 per cent of the antiretroviral drugs used globally to combat AIDS (Acquired Immune Deficiency Syndrome) are supplied by Indian pharmaceutical firms.

This study attempts to measure the financial performance of the Pharmaceutical companies. In order to achieve the goal, this study have measured the ratios of ROE, ROA applying the DuPont analysis, which have been demonstrated with tables to show the change periodically. DuPont analysis is based on analysis of Return on Equity (ROE) . The return on equity dis-aggregate performance into three components: Net Profit Margin, Total Asset Turnover, and the Equity Multiplier. The study Cover ROE with the help of Du Pont chart 3 step analysis of 5 companies and five year period from 2014-2019.

II. LITERATURE REVIEW

This chapter present a review of past studies relating to research problems choose for the present study and provide the researcher to have an in- depth knowledge over the various concept of research problem. Review collected for important studies and different concept relating to the financial performance has been show. In this Concern, the researcher has referred to different academic journals, magazines, books, etc.

1) *Nissim & Penman (2001):* Suggest using a modified version of the traditional DuPont model in order to eliminate the effects of financial leverage and other factors not under the control of those managers. Using operating income to sales and asset turnover based on operating assets limits the performance measure of management to those factors over which management has the most control. The modified DuPont model has become widely recognized in the financial analysis literature. For example, Pratt & Hirst (2008), Palepu & Healy (2008), and Soliman (2008). In addition, Soliman (2004) found that industry-specific DuPont multiplicative components provide more useful valuation than do economy-wide components, suggesting that industry-specific ratios have increased validity.
2) *et al (2009):* the modified DuPont model of financial ratio analysis is used to identify the drivers of financial success under alternative business strategies. Firms in the retail industry are categorized according to their high/low relative net operating income to sales and operating asset turnover ratios. Firms with high relative net operating income to sales and low relative operating asset turnover are assumed to be pursuing a differentiation strategy and those with high relative operating asset turnover and low relative net operating income to sales are assumed to be pursuing a cost leadership strategy.

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3) *According to Rogova (2014):* DuPont analysis effectively revealed factors of efficiency which had, in turn, impacted on the investment appeal of Russian oil-extracting companies. It was found that a strong advantage of ROE was the possibility of its disaggregation into different profitability ratios, with ROE indicating profitability and efficiency from the shareholders' point of view.
4) *Blessing and Onoja (2015):* Agree that profitability, assets, liabilities and equities are significant ways of evaluating performance reports of companies and for making investment decisions. They note a general belief that published financial statements have failed in their responsibility to provide credible information for investors and other users of financial statements.

III. DUPONT ANALYSIS

Return on equity (ROE) is a closely-watched number among knowledgeable investors. It is a strong measure of how well a company's management creates value for its shareholders. The number can be misleading, however, as it is vulnerable to measures that increase its value while also making the stock riskier. Without a way of breaking down ROE components, investors could be duped into believing a company is a good investment when it's not. If ROE goes up, it is generally a good sign for the company as it is showing that the rate of return on the shareholders' equity is rising. The problem is that this number can also rise simply when the company takes on more debt, thereby decreasing shareholder equity. This would increase the company's leverage, which could be a good thing, but it will also make the stock riskier. Both the three- and five-step equations provide deeper understanding of a company's ROE by examining what is really changing in a company rather than looking at one simple ratio. As always with financial statement ratios, they should be examined against the company's history and its competitors.

1) *Three Point Analysis:* The three-step equation breaks up

ROE into three very important components

a) Operating efficiency – as measured by profit margin
b) Asset use efficiency – as measured by total asset turnover
c) Financial leverage – as measured by the equity multiplier
d) ROE= (net profit margin) * (asset turnover) * (equity multiplier)
e) = (net income / sales) * (sales / assets) * (assets /shareholders' equity)

If a company's ROE goes up due to an increase in the net profit margin or asset turnover, this is a very positive sign for the company. However, if the equity multiplier is the source of the rise, and the company was already appropriately leveraged, this is simply making this riskier. If the company is getting over-leveraged, the stock might deserve more of a discount despite the rise in ROE. The company could be under-leveraged as well. In this case it could be positive and show that the company is managing itself better. Even if a company's ROE has remained unchanged, examination in this way can be very helpful. Suppose a company releases numbers and ROE is unchanged. Examination with DuPont analysis could show that both net profit margin and asset turnover decreased, two negative signs for the company, and the only reason ROE stayed the same was a large increase in leverage. No matter what the initial situation of the company, this would be a bad sign.

IV. RESEARCH METHODOLOGY

A. *Problem Statement*

The development of industries depends on several factors such as finance, personnel, technology, quality of the product and marketing. Out of these, financial and operating aspects assume a significant role in determining the growth of industries. All of the company's operations virtually affect its need for cash. Most of the data covering operational areas are however outside the direct responsibility of the financial executive. Unless the top management appreciates the value of a good financial and operating analysis, there will be continuing problems for the financial executives to find the profitability position of the concern. In this context the researcher is interested in undertaking an analysis to find the financial performance of Pharmaceutical Industry and comparing the Return on Equity values using the data with those computed using DuPont's three point. The study covers a period of five years from the financial year 2015-16 to 2019-20

B. *Objective of the Study*

The following are the specific objectives of the study:

1) To analyze the profitability position of selected Pharmaceutical Companies in India by comparing their Return on Equity values.
2) To analyze the factors influencing Return on Equity using DuPont's three-point and five-point analysis.

V. STATISTICS & ANALYSIS

A. DuPont's Three Point Analysis

Using DuPont's three-point analysis as explained above, we have broken down ROE into 3 components namely net profit margin, asset turnover ratio & equity multiplier.

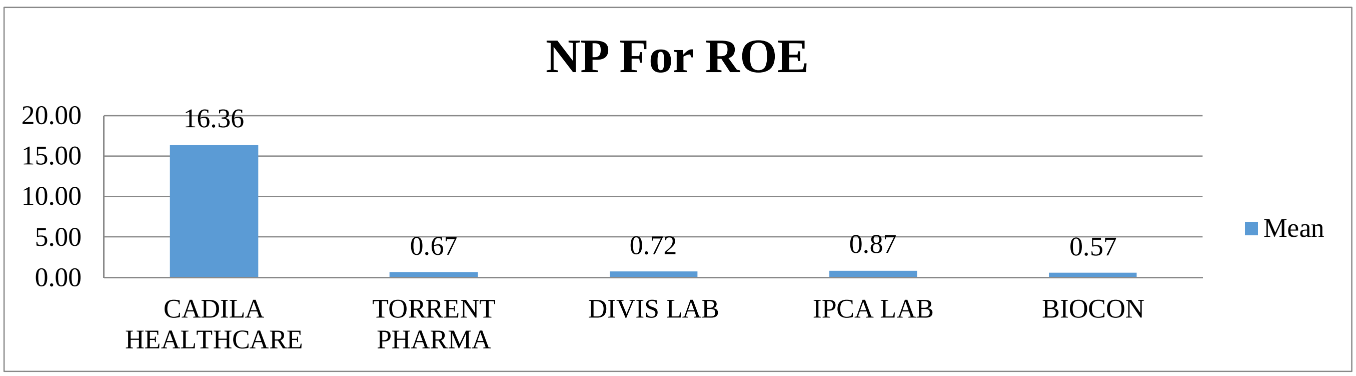
1) *Net Profit Margin:* The PATM (Profit after Tax Margin) or the Net Profit Margin data for the 5 major pharmaceutical companies in India has been given in Table 1. The graph shows that Mean for Net Profit Margin.

Table 1: Net Profit Margin

Year/Companies	Cadila	Torrent	Divis	IPCA	Biocon
2014-2015	13.96	16.38	27.34	8.09	17.10
2015-2016	20.43	26.38	29.44	3.31	18.02
2016-2017	15.76	15.94	25.82	62.38	17.55
2017-2018	15.14	11.30	22.41	7.29	10.97
2018-2019	14.42	5.69	27.35	11.72	18.18
Mean	15.94	15.14	26.47	18.56	16.36

(Sourses: Consolidated data of Annual Report of the company)

Chart: Net Profit



a) *Interpretation:* For Du Pont Three level chart this is the component for the ROE calculation.in above chart shows that Divis lab is on the top mean for the net profit margin. The second place cover by IPCA lab ltd, tham Biocon, Cadila, Torrent Pharma ltd is there for the profit earnings of the compashows that Divis lab is on the top mean for the net profit margin. The second place cover by IPCA lab ltd, tham Biocon, Cadila, Torrent Pharma ltd is

B. Asset Turnover Ratio

The Asset Turnover ratio for the 12 major pharmaceutical companies in India has been given

1) *Table: 2 Assets Turnover Ratio:* in Table 2. Obviously, higher the value of Asset Turnover Ratio, more efficient isthe company in converting its assets to sales

Year/Companies	Cadila	Torrent		Divis	IPCA	Biocon
2014-2015	11.58	0.66		0.76	0.92	0.69
2015-2016	19.18	0.86		0.83	0.80	0.57
2016-2017	14.81	0.67		0.72	0.86	0.49
2017-2018	17.68	0.44		0.59	0.85	0.51
2018-2019	18.54	0.73		0.71	0.90	0.58
Mean	13.75	0.82		0.70	0.82	0.57

Sourses: Consolidated data of Annual Report of the company)

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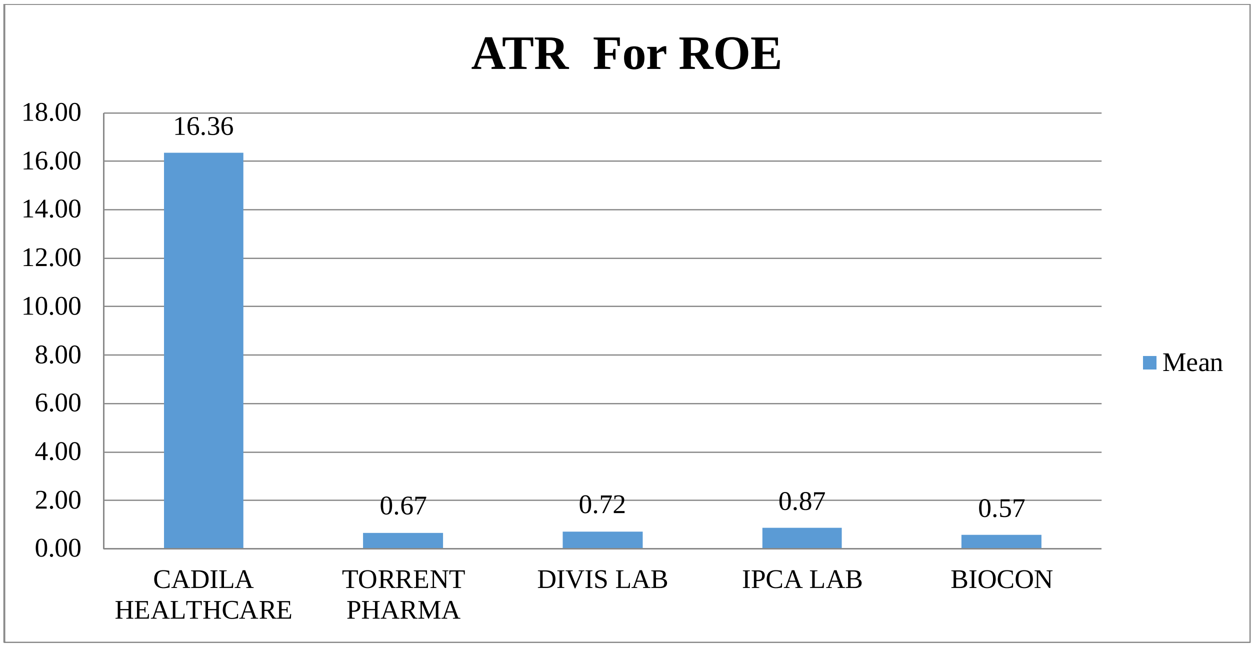
Chart: 2 Assets Turnover Ratio



a) *Interpretation:* For Du Pont Three level chart this is the component for the ROE calculation.in above chart shows that Cadila Healthcare ltd. is on the top mean for the net profit margin. The second place cover by IPCA lab ltd, tham Biocon, Cadila, Torrent Pharma ltd is there for the profit earnings of the company shows that Divis lab is on the top mean for the net profit margin. The second place cover by IPCA lab ltd, than , Divis lab Torrent Pharma ltd , Biocon is accordingly mean for the Selected companie

C. *Equity Multiplier*

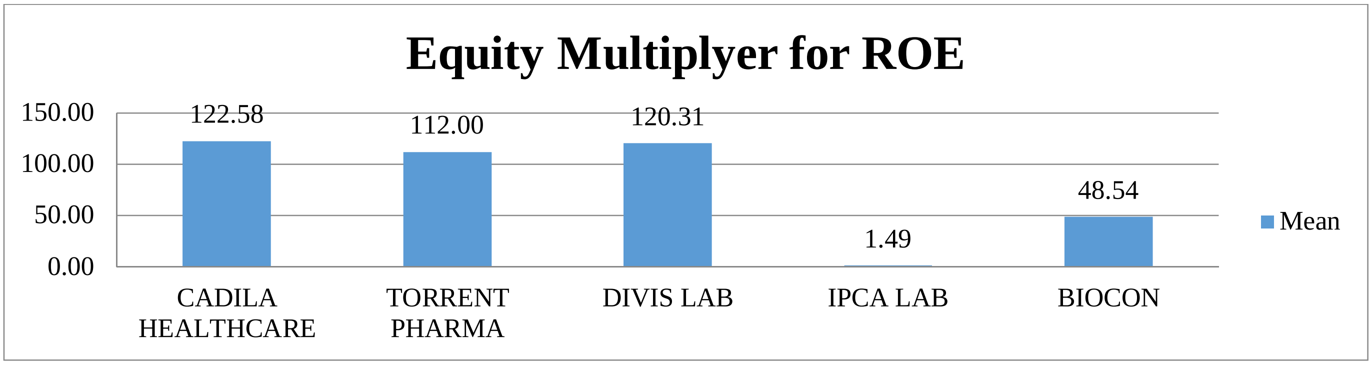
The equity multiplier or the financial leverage, defined as Total Assets divided by the Total Equity, for the 12 major pharmaceutical companies in India has been calculated from the respective balance sheets by dividing Total Assets by Total Debt and multiplying it with the debt to equity ratio and the same has been given in Table 3. The equity multiplier is indicative of the risk that the company has taken in terms of debt and is of particular

1) *Table: 3 Equity Multiplier:* interest to investors who wish to analyze the risks accompanying their investments and helps them take more informed decisions. From the shareholders' perspective, a higher equity multiplier is a good thing as it means increased assets for their same investment. From the perspective of the investors, however, higher equity multiplier means higher financial leverage and riskier financial status.

Year/Company	Cadila	Torrent	Divis	IPCA	Biocon
2014-2015	74.01	81.95	153.78	1.36	44.80
2015-2016	82.48	89.78	85.39	1.44	59.48
2016-2017	119.41	102.62	106.85	1.48	79.50
2017-2018	132.89	160.79	124.76	1.53	27.22
2018-2019	204.12	124.86	130.79	1.66	31.69
Mean	122.58	112.00	120.31	1.49	48.54

(Sources: Consolidated data of Annual Report of the company)

Chart: 3 Equity Multiplier



a) *Interpretation:* For Du Pont Three level chart this is one of the component for the ROE calculation.in above chart shows that Cadila Healthcare ltd. is on the top mean for the net profit margin. The second place cover by Divi's lab ltd, tham Torrent Pharma, Biocon ltd is come accordingly descending order.

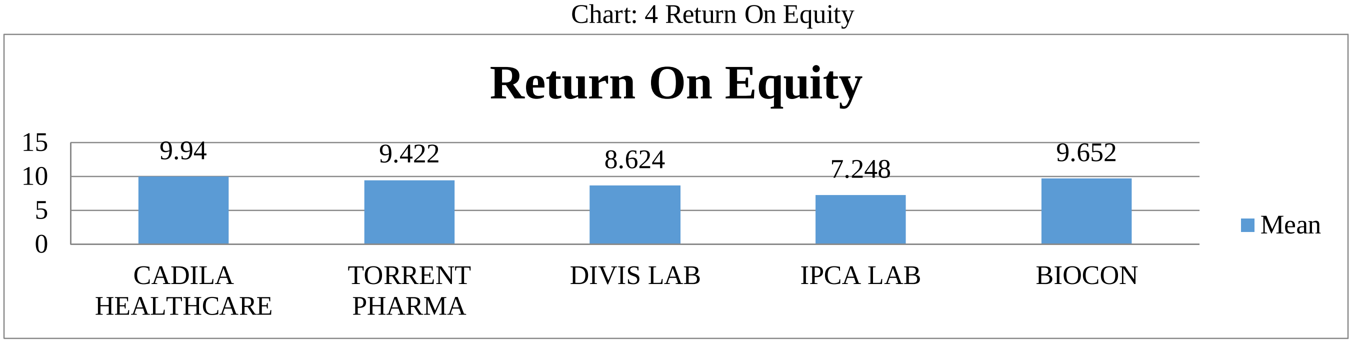
D. Return On Equity Using Dupont's 3-Point Analysis

ROE has been calculating the 3-point formula by
multiplying the respective data from Table 1, Table 2 & Table 3 and has been shown in Table 4.The calculated Mean ROE values coincides with those obtained directly from the data.

Table: 4 Return On Equity

Year/Company	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Cadila	11.58	19.18	14.81	17.68	18.54
Torrent	0.66	0.86	0.67	0.44	0.73
Divis	32.08	20.94	19.97	16.52	25.48
IPCA	0.1	0.04	0.79	0.09	0.17
Biocon	5.28	6.09	6.88	1.51	3.34
Mean	9.94	9.422	8.624	7.248	9.652

Chart: 4 Return On Equity



1) *Interpretation:* This is the basic ROE get by using Du Pont Chart 3 level analysis. Here the Cadila Haelthcare had highest ROE for the study period. The Biocon ltd had second highest ROE of selected study period.

The Torrent Pharma ltd had 9.42 mean for the ROE. This three companies shows higher ROE for their study.

VI. CONCLUSION

On the basis of above discussion, it is safely to conclude that Cadila Healthcare Pharmaceuticals is the most profitable for its shareholders while IPCA lab is the least profitable on the basis of Return on Equity. Moreover, the growth in ROE value of Torrent Pharmaceuticals has been tremendous. The three-point analysis had raised the possibility of IPCA lab being risky from the investors perspective and thus indicated possibility of investors being uninterested in investing / giving loan to IPCA lab Pharmaceuticals