



Diagnosing Inter Firm Profitability of Pharmaceutical Industry: An Empirical Analysis for India

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ABSTRACT

Indian pharmaceutical industry ranks 3rd in the world in terms of volume, quality and range of medicines it manufactures. Cost of producing medicine in India is considerably lower than that of the USA and approximately half of that of European countries which confers a competitive edge to India over others. Current domestic market of Indian pharmaceutical industry is worth US\$13.8 billion (PWC, 2013). There are hundreds of pharmaceutical companies in India so a comparative study of their profitability is always needed. Present study is an effort to give an insight into profitability measures of selected pharmaceutical companies in India. Top five pharmaceutical companies in India have been selected for study based on the size of their current market capitalization including Sun Pharmaceuticals, Lupin, Dr. Reddys Lab, Cipla and Aurobindo Pharma. Further in order to draw a conclusion, profitability ratios of these companies has been analyzed and ranked on the basis of their composite performance during the period of study i.e. FY 2012 to FY 2016. Present study shows Indian pharmaceutical companies are doing well on account of profitability measures; Lupin is far ahead of its competitors whereas Sun Pharma emerged as the least performer during the study period.

Key Words: Profitability, Sun Pharmaceuticals, Lupin, Dr. Reddys Lab, Cipla, Aurobindo Pharma, India

INTRODUCTION

Indian pharmaceutical sector plays a pivotal role in economy development. It contributes approximately 2.4% of the global pharmaceutical industry in terms of value and 10% in terms of volume. Pharmaceutical industry in India is expected to grow at a CAGR of 16% from US\$ 20 billion in 2015 to US\$ 55 billion by 2020. Indian drugs and medicines are currently exported to more than 200 countries worldwide. USA is the focal market for our pharmaceutical products. India is the largest producer of generic medicines in the world and it is expected to grow further in years to come. Government of India plans to set up a venture capital fund of US\$ 640 million to facilitate drug discovery and reinforce pharmaceutical infrastructure in the country. The 'Pharma Vision 2020' by the Department of Pharmaceuticals, Government of India is determined to make India a hub for major drug discovery in the world. One of the important aspects with Indian pharmaceutical companies is its cost effective production, cost of producing medicine in India is considerably lower than that of the USA and approximately half of that of European countries which confers a competitive edge to India over others.

Leading Pharmaceuticals companies in India on the basis of their market capitalization includes Sun Pharmaceuticals, Lupin, Dr. Reddys Lab, Cipla, Aurobindo Pharma etc.

OBJECTIVE OF THE STUDY

- 1) To evaluate the performance of leading pharmaceutical companies in India in respect of their profitability.
- 2) To scrutinize the profitability measures of these companies under the study;
- 3) To make to a comparative analysis of the performance of these companies based on key profitability ratio; and
- 4) To give an ultimate ranking to these companies on the basis of their profitability.

RESEARCH METHODOLOGY

Sample Selection:

For the purpose of study top five pharmaceutical companies in India have been selected on the basis of their market cap-

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italization and listing on both the Indian stock exchanges; BSE & NSE.

Source of Data:

The present study is based on secondary data, compiled from annual reports of these companies as published on their official website. Apart from it relevant data have been taken from the site of Indian stock exchanges; BSE, NSE, financial sites like Money control and Google finance. Various financial journals, magazines and report have also been used for the present study. Further data have been scrutinized with the help of MS word, Excel etc.

Methodology:

For the purpose of study data so obtained was analyzed by using ratio analysis of favorite profitability measures like Operating Profit Margin, Net profit Margin, Return on Equity, Return on Capital Employed and Return on Assets. An ultimate ranking was given to each company on individual performance at each profitability ratio.

Period of Study:

The present study covers a period of five years i.e. FY’12 to FY’16.

Scope of the Study:

Present study encompasses only top five pharmaceutical companies; Sun Pharmaceuticals, Lupin, Dr. Reddys Lab, Cipla and Aurobindo Pharma based on their current market capitalization. This paper concludes on a single parameter i.e. profitability measure.

DATA ANALYSIS

Table 1: Top Five Pharmaceutical Companies in India and their Market Capitalization

S.N.	Name of the company	Market Cap. (Rs. cr.)
1.	Sun Pharma	187835.11
2.	Lupin	69365.58
3.	Dr Reddys Labs	53794.43
4.	Cipla	46697.8
5.	Aurobindo Pharma	46000.18

Source: Author’s compilation based on BSE data

For the purpose of study a list of top five pharmaceutical companies has been categorized on the basis of their market capitalization as on 15th September, 2016. Table-1 exhibits top five IT companies in BSE and their market cap in Rs. Cr.

Table 2: Profitability Ratios# of major Pharmaceutical Companies in India

Profitability Measures	Sun Pharma	Lupin	Dr. Reddys	Cipla	Aurobindo Pharma
Operating Margin (%)	17.13	31.91	26.26	23.52	24.71
Net Profit Margin (%)	-13.79	21.75	15.68	14.51	9.54
Return on Net worth / Equity (%)	5.63	26.45	15.60	13.53	15.30
Return on Capital Employed (%)	-2.08	25.06	14.39	12.98	12.59
Return on Assets (%)	-0.67	19.88	10.12	10.57	9.98

#Average of five years; FY 2012 to FY 2016
Source; Author’s compilation

Based on five years average profitability measures a data-sheet (Table-2) has been prepared for top five pharmaceutical companies. All the measure profitability ratios; Operating Margin, Net Profit Margin, Return on Net worth/Equity, Return on Capital Employed and Return on Assets were calculated further mean for five years FY’12 to FY’16 in term of percentage have been taken for the study.

1. Operating Margin:

Operating Profit Ratio constitutes the relationship between operating profit and net sales of the company. Operating Profit is also termed as PBIDT or EBIDTA; profit/earnings before interest, depreciation, tax and amortization. A higher operating margin ratio makes a company able to assure enough margins to cater its non-operating expenses. It also helps to create sufficient reserve to ensure payment of dividends.

Operating Profit Ratio is computed as follow;

$$\text{Operating Profit Ratio (OPM \%)} = \frac{\text{Operating Profit}}{\text{Net Operating Revenues}} \times 100$$

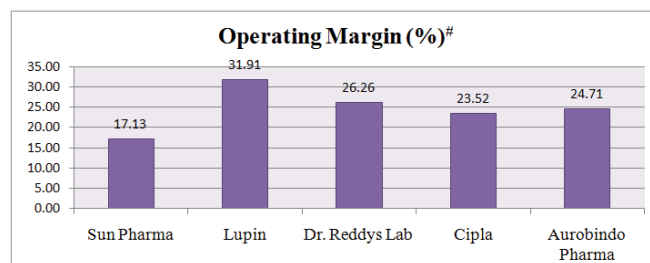


Figure 1: Five year average operating profit ratio (OPM %) of top five pharmaceutical companies in India

#Average of five years; FY 2012 to FY 2016
Source; Author’s compilation

Figure 1 exhibits that Lupin maintains higher average operating margin at 31.91% in last five years; FY 2012 to FY 2016, followed by Dr. Reddys Lab (26.26 %), Aurobindo Pharma (24.71 %) and Cipla (23.52%). Sun Pharma is maintaining least operating margin at average 17.13 %.

2. Net Profit Margin:

Net Profit Ratio establishes the relationship between net profit and net sales of the company and shows managerial efficiency of the company in measure areas like manufacturing, administration and selling the product. Higher Net Profit margin shows a profitable position of the company which help them to endure in the case of increasing cost of production, deteriorating selling prices and declining demand for the product in the market. Net Profit Ratio is calculated as under:

$$\text{Net Profit Ratio} = \text{Net profit} / \text{Net Sales} \times 100$$

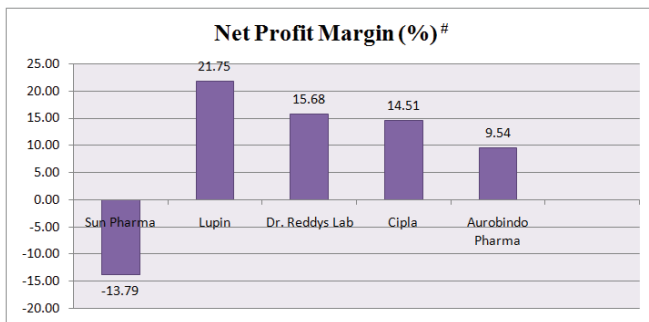


Figure 2: Five year average Net profit ratio of top five pharmaceutical companies in India

#Average of five years; FY 2012 to FY 2016

Source; Author's compilation

Figure 2 exhibits that Lupin maintains highest average Net Profit Margin at 21.75% in last five years; FY 2012 to FY 2016, followed by Dr. Reddys Lab (15.68%), Cipla (14.51%) and Aurobindo Pharma (9.54 %). Sun Pharma on the other hand has negative net profit margin at average -13.79 %.

Return on Equity

For investors of the company Return on Equity (ROE) /Return on Net worth measures the return on the investment into the equity shares of the company, it is the most important profitability measure for an investor. The higher the Return on Equity ratio, the better it is supposed for the investors. ROE exhibits with some exceptions, firm capability of using investors' money in the most profitable manner. Return on Equity (ROE) computed as follow;

$$\text{ROE} = \text{Net Profit} / \text{Shareholders Fund} \times 100$$

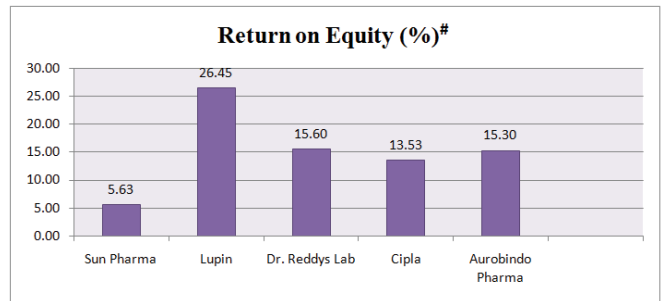


Figure 3: Five year average ROE % of top five pharmaceutical companies in India

#Average of five years; FY 2012 to FY 2016

Source; Author's compilation

Figure-3 exhibits that Lupin is having highest average ROE at 26.45% in last five years; FY 2012 to FY 2016, followed by Dr. Reddys Lab (15.60%), Aurobindo Pharma (15.30%) and Cipla (13.53%) while Sun Pharma is the least performer with ROE of 5.63%.

4. Return on Capital Employed:

ROCE exhibits firm's operational efficiency, it measures to what extend investors are getting return on the capital employed by them in the company. ROCE ratio is a performance measure which simply shows how much return is generated by the investors from their invested capital. The ROCE is computed as follow;

$$\text{ROCE} = [\text{Profit after Tax} + \text{Interest}] / \text{Net Capital Employed} \times 100$$

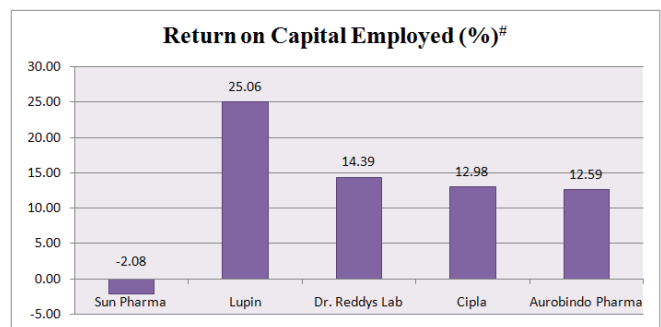


Figure 4: Five year average ROCE % of top five pharmaceutical companies in India

#Average of five years; FY 2012 to FY 2016

Source; Author's compilation

Figure 4 exhibits that Lupin maintains highest average ROCE at 25.06% in last five years; FY 2012 to FY 2016, followed by Dr. Reddys Lab (14.39%), Cipla (12.98%) and Aurobindo Pharma (12.59%). Sun Pharma is the least performer among all the companies having negative ROCE at average -2.08 %.

5. Return on assets (ROA)

Return on assets commonly known as ROA, ascertains the relationship between firm’s earning capacity and its long term assets. ROA reveals how beneficial a firm is towards its total long term assets and how efficiently the management is using its assets in order to breed maximum possible earnings. It is calculated as a percentage as follow;

$$\text{Return on assets (ROA)} = \text{Net Income} / \text{Total Assets} \times 100$$

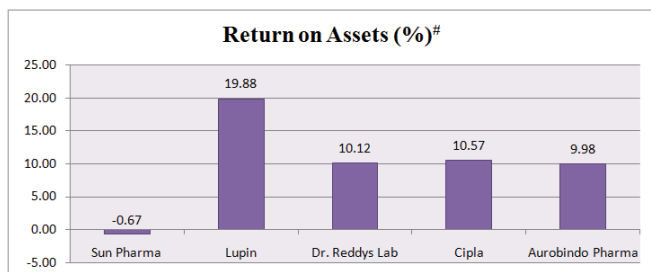


Figure 5: Five year average ROA % of top five pharmaceutical companies in India

#Average of five years; FY 2012 to FY 2016

Source; Author’s compilation

Figure 5 exhibits that Lupin maintains the highest ROA at average 19.88% in last five years; FY 2012 to FY 2016, followed by Cipla (10.57%), Dr. Reddys Lab (14.12%), and Aurobindo Pharma (9.98%). Sun Pharma even at ROA measure stood last with negative average of -0.67 %.

DISCUSSION

Consolidated Performance

Table 3 shows consolidated profitability measures of top five pharmaceutical companies in India. As per profitability ratio, firstly individual rank has been given to each company based on isolated profitability measure then an ultimate rank to all the five companies on the basis of their individual

profitability rank. Highest rank has been given to the company having minimum total value of individual ranking in each profitability measure.

FINDINGS:

1. It was found that Lupin among the top five pharmaceutical companies in India selected for the study is the top performer on all the profitability parameters. It maintains the highest operating profit margin (OPM %) at average 31.91%, net profit margin (NPM %) 21.75%, ROE 26.4%, ROCE 25.06% and ROA 19.88% on average basis from FY 2012 to FY 2016.
2. Dr. Reddys Lab stood the second position on all parameters except ROA. It’s average operating profit margin (26.26%) net profit margin (15.68%), ROE (15.6%) and ROCE (14.39%) were just behind that of Lupin while on ROA (10.12%) basis it was on third position.
3. Sun Pharmaceutical was the least performer on all the profitability parameters used in our study. It’s average OPM%, NPM%, ROE, ROCE and ROA were 17.13%, -13.79%, 5.63%, -2.08% and -0.67% respectively during FY2012 to FY 2016.
4. In the area of operating profit margin (OPM%), Lupin stood first at average 31.91% followed by Dr. Reddys (26.26%), Aurobindo Pharma (24.71%), Cipla (23.52%) and Sun Pharma (17.13%) during FY 2012 to FY 2016.
5. Among the top five leading Pharmaceutical companies in India Lupin maintains the highest net profit margin (NPM%) at average 21.75% followed by Dr. Reddys (15.68%), Cipla (14.51%), Aurobindo Pharma (9.54%), and Sun Pharma (-13.79%) during FY 2012 to FY 2016.
6. On return on equity (ROE) measure, Lupin was at the top at average 26.45% followed by Dr. Reddys (15.60%), Aurobindo Pharma (15.30%), Cipla (13.53%) and Sun Pharma (5.63%) during FY 2012 to FY 2016.
7. In the area of return on capital employed, Lupin maintains highest ROCE at average 25.06% among top five

Table 3: Ultimate Rank of Top five Pharmaceutical Companies in India based on Consolidated Profitability

Name of the Company	Rank as per Profitability Ratio					Total	Ultimate Rank
	OPM (%)	NPM (%)	ROE (%)	ROCE (%)	ROA (%)		
Sun Pharma	5	5	5	5	5	25	5
Lupin	1	1	1	1	1	5	1
Dr. Reddys Lab	2	2	2	2	3	11	2
Cipla	4	3	4	3	2	16	3
Aurobindo Pharma	3	4	3	4	4	18	4

Source; Author’s compilation

pharmaceutical companies in India while remaining companies Dr. Reddys (14.39%), Cipla (12.98%), Aurobindo Pharma (12.59%) and Sun Pharma (-2.08%) are far behind it. Thus Lupin is efficiently utilizing its capital.

8. During the period of study the highest return on assets (ROA) was observed in Lupin at average 19.88% followed by Cipla (10.57%), Dr. Reddys (10.12%), Aurobindo Pharma (9.98%) and Sun Pharma (-0.67%).

CONCLUSION

Lupin among the top five Indian pharmaceutical companies selected for the study maintains highest score at every parameter of profitability analysis measures used. It secured 1st position based on ultimate ranking in our study with operating profit margin (OPM) at average 31.91%, Net profit margin 21.75%, ROE 26.4%, ROCE 25.06% and ROA 19.88% during last five years performance. On the other hand, Sun Pharma among selected pharmaceutical companies maintains least score at every parameter of profitability, It secured overall 5th position in our study based on ultimate ranking with operating profit margin (OPM) at average 17.13%, Net profit margin -13.71%, ROE 5.63%, ROCE -2.08% and ROA -0.67% during last five years performance. The current study shows Indian pharmaceutical companies selected for the study are doing well on account of profitability measures; however Sun Pharma could not deliver good numbers in recent years for which further study is required. Lupin posted outstanding numbers during last five years and is far ahead of its competitors by securing 1st rank in our study. Dr. Reddys Lab, Cipla and Aurobindo Pharma based on ultimate rank though far behind of Lupin secured 2nd, 3rd and 4th position respectively. However, the profitability performance of Sun Pharma with 5th ultimate rank has been posting consistently poor numbers among top five pharmaceutical companies in the India.

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