



## ORIGINAL RESEARCH PAPER

## Commerce

### MEASURING THE FINANCIAL PERFORMANCE OF PHARMACEUTICAL COMPANIES REGISTERED ON BSE

**KEY WORDS:** DuPont Analysis, Return on Equity, Return on Investment, Financial Performance, Pharmaceutical Industry

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#### ABSTRACT

This study tries to figure out how well these companies make money over the next five years. In order to reach our goals in this paper, we used DuPont analysis to measure the ratios of ROE and ROA. We then used tables to show how these ratios change over time. DuPont analysis is an excellent way to figure out how well a company makes money. It shows how well the company can make money. In this model, DuPont looks at how much money shareholders make and how much money they make from investments (ROI). Return on equity breaks down performance into three parts: Net Profit Margin, Asset Turnover, and Equity Multiplier. A return on investment is how many assets are turned over and how much money is made from each of them. Assets Turnover and Profit Margin are two parts of the return on investment. The financial performance of Cipla Pharmaceuticals, Dr. Reddy's Laboratories, and Sun Pharmaceutical Industries Limited was all good in a study. Each of the four companies is important at its level. In the end, ROE and ROI is the best way to figure out how profitable a company is. It looks at how the company runs and invests and how it finances and pays its taxes.

#### 1. Introduction:

The Pharmaceutical Industry develops, manufactures, and sells drugs that have been authorized for use as medicines (Haleem et al., 2015). They have a well-equipped R&D department (Kolluri et al., 2022). Pharmaceutical companies can collaborate on generic and commercially available drugs and medical equipment. They are bound by several government rules and regulations concerning drug patenting, testing, price, protection, efficacy assurance, and marketing (G de la Torre & Albericio, 2019). India has a significant role (Goyal et al., 2022; Maheswari, 2022; Nandy, 2022b). There is also a vast pool of scientists and engineers in the country who can take the industry to an even greater level. Indian pharmaceutical companies currently supply over 80 percent of the antiretroviral medicines used internationally to treat AIDS (Acquired Immune Deficiency Syndrome) (Damle & Krishnamoorthy, 2022). Andhra Pradesh, Gujarat, Maharashtra, and Goa are the country's top pharmaceutical production hubs. Bulk drug clusters may be found in Ahmedabad, Vadodara, Mumbai, Aurangabad, Pune, Hyderabad, Chennai, Mysore, Bangalore, and Visakhapatnam (Vizag). From its beginnings at the turn of the twentieth century, the pharmaceutical sector has grown into one of the most profitable and vigorous. With a market share of 71%, generic pharmaceuticals are India's most significant pharmaceutical sector category. The IPA emphasizes that "Indian pharmaceutical companies must take big strategic initiatives into unexplored territory." The study admin to analyze the financial performance of the selected Indian Pharmaceutical Companies from SENSEX of Bombay Stock Exchange.

#### 2. Literature Review:

A for-profit company's financial objectives are primarily concerned with the external loan and equity capital providers (Vukovi et al., 2022). With dividends and capital gains, shareholders' monetary rewards cover the market value of their shares. Earnings, ROS, ROA, ROE, and ROI, are critical financial measures for shareholders since earnings determine what may be paid out as a dividend in the long run (Gleißner et al., 2022). Cash accounts receivables and inventories are all examples of current assets. On the other

hand, account payables and accruals are included in current liabilities (Mandipa & Sibindi, 2022). The job of financial managers is to maximize the company's worth. Thus they choose the optimal mix of CA and CL to accomplish that goal (Sedliacikova et al., 2021).

In today's competitive market, it is challenging for enterprises to balance working capital and production (Rey-Ares et al., 2021). Businesses strive to create policies that they can effectively manage, which may result in these issues due to a flaw in the management policy framework (Ayangma et al., 2021). The financial success of India's pharmaceutical business has contributed significantly to increased life expectancy and lower death rates (Mulinari, 2016). It is the world's fifth-largest in terms of volume and the 14th-largest in value. A comparison of the financial performance of the Indian pharmaceutical sector from 1993 to 2002, based on the financial performance of six of the industry's key businesses. The study of Du Pont, a collective method of analysis of financial statements, spoils the return on net operating assets in two multiplicative mechanisms: profit margin and turnover of assets. (Saus-Sala et al., 2021). Du Pont's analysis considers three metrics for calculating firm profitability: ROA, ROE, and ROI. Return on assets-ROA gives a common perspective on the efficacy of management. It demonstrates how much profit a corporation receives with every dollar of its assets (Burja & M rginean, 2014).

Assets include bank currency, receivable accounts, property, services, inventory, and furniture. Only a few professional money managers can research stocks with less than 5 percent ROA.  $ROA = \text{Net income} / \text{Total assets}$ . Return on equity-ROE is a simple measure of how efficiently the management of a company uses the money of investors-ROE examples of whether management communicates the value of the company at an appropriate rate. It also deals with the rate of return the company gains on the stockholder's equity. Because only the stockholder's equity exists in the denominator, the ratio is explicitly subjective to the amount of debt a business spends on financing properties (Jufrizen & Al Fatin, 2020).

$ROE = \text{Equity of Stockholder} / \text{Total Assets} \times \text{Total Assets} / \text{Net}$

Income X Equity of Stockholder / Total Assets. ROE is determined by taking the profit after tax (PAT) and option dividends of that year and dividing them by the book value of the equity shares at the beginning of the year. It is possible to leverage average equity. Equity would consist of ordinary share capital issued plus the share premium and reserves (Amelia & Sunarsi, 2020).

**Return on Investment-ROI** The return on investment is the return earned from the firm's investment. This gives the firm's actual location. ROI displays whether or not the management is in a beneficial role. It tests the firm's earnings. It multiplies properties' profit margin and turnover (Boyd et al., 2020).

$ROI = \text{Assets Turnover (Operating Income X Total Assets) X Profit Margin (EBIT X Operating Income)}$  This transition resulted in five ratios combining ROE and ROI to shape. They agree that companies preparing financial statements for their annual reports (which are most relevant to creditors and tax collectors) are not always beneficial to managers making organizational and financial decisions (Epanchin-Niell & Boyd, 2020).

### 3. Research Methodology:

#### 3.1 The objective of the study:

To analyze the profitability of selected pharmaceutical companies registered on the BSE (Bombay Stock Exchange)

This report's ultimate objective is to highlight the compression of the financial performance of selected pharmaceutical companies.

Measuring the Return on Equity and Return on Investment using the DuPont Analysis.

#### 3.2 Data Collection:

The study is mainly analytical and entirely based on secondary data. The data required for the study has been collected from an extensive survey of literature in articles, journals, books, and government reports. Other data for the study was collected using websites and money control applications. The financial data was collected from the Annual Reports of the Selected Pharmaceutical Companies from 2015-16 to 2019-20.

### 4. Findings & Suggestion

**DuPont Analysis:** The DuPont analysis computes variables from the income statement and balance sheet to determine a firm's return on equity (ROE) & return on Investment (ROI).

#### Showing ROE & ROI for Cipla Limited

**Table 1: Return on Equity**

Year	Total Assets (a)	Common Stock Equity (b)	Financial Leverage C= (a/b)	NPM (d)	TAT (e)	ROA (d/e)	ROE = FL/ROA
2015-2016	14505.18	10679.71	1.358199801	9.36693	1.31968	7.097881521	5.225947989
2016-2017	15239.05	11985.88	1.271416867	8.0891336	1.288307	6.278885998	4.938495123
2017-2018	15607.22	12800.51	1.219265482	11.256672	1.467247	7.671969946	6.292288314
2018-2019	17094.97	14113.52	1.211247796	7.7934315	1.493688	5.217578186	4.307605926
2019-2020	18418.81	15781.91	1.167083705	6.5526077	1.488508	4.40213205	3.77190773

**Table 2: Return on Investment**

Year	Operating Income (e)	Total Assets (b)	Assets Turnover C=(a/b)	EBIT (d)	Operating Income (e)	Profit Margin F = (d/e)	ROI = C*F
2015-2016	11345.44	14505.18	0.782164716	1539.97	11345.44	0.135734709	0.1061669
2016-2017	13790.1	15239.05	0.904918614	1739.53	13790.1	0.126143393	0.114149504
2017-2018	14630.24	15607.22	0.937402049	1222.17	14630.24	0.083537249	0.078307988
2018-2019	15219.25	17094.97	0.890276497	1746.98	15219.25	0.114787522	0.102192633
2019-2020	16362.41	18418.81	0.888353265	2079.14	16362.41	0.127068079	0.112881342

### 5. Conclusion:

With the aid of profitability ratios such as ROI and ROE, this study aims to decide that comparing a company's success and condition against its rivals analyses the company's patterns by contrasting revenue with the company's profit. The above analysis shows that Cipla pharmaceutical ROE and ROI have the highest returns on equity and investment at 4.9 and 0.11, followed by Sun Pharmaceutical Industries Limited, ROE is 4.22, and ROI is 0.13. The third position secured by Dr. Reddy's Lab ROE is 1.54 and ROI by 0.09. The fourth position by Lupin Limited ROE is 0.05, and ROI is 0.11. This shows that Cipla concentrates on its financial performance by reducing its expenses and cost. From the ROE and ROI, the trend analysis of the company between the sales and profit shows that Cipla Pharmaceutical had a Total Sales of 10991.44 million in the year 2016. The company's profit in the year 2016 was 1173.43 million. The company's sales in 2019 were 12374.01 million, and its profit was 1888.41 million. In 2016 the sales of Sun Pharmaceutical Industries Limited were 374455.5 million and the profit was 45394 million. When sales by Sun Pharmaceutical Industries Limited in 2019 is 377141.3 million, the profit is reduced to 32093.2 million. For Dr. Reddy's Lab, the company's total sales in 2016 were 98874 million, and the profit was 16794 million. While the sales of Dr. Reddy's Lab in 2019 were 104667, and the company's profit was 19500 million. The company sales of Lupin Limited in the year 2015 were 96376.9 million. The company's profit is 24032.4. while the sales of the Lupin Limited in the year 2019 are increased to 279493.7 million.

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