



# An Empirical Study of Profitability Analysis of Selected Pharmaceutical Companies of India

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## Abstract:

*COVID-19 pandemic is not only a global health catastrophe; it is also a hard-hitting economic crisis for several economies. This period has been a trying time for the manufacturing industries in general, and highlighted the urgency for India to become self-reliant. Though the 'Atmanirbhar Bharat' rhetoric anticipated growth after a brief pause, the continuing pandemic has affected the "self-reliant" discourse quickly. The pandemic exposed the fact that India is dependent on imports for essential medical equipment. The irregularities in supplies not only skyrocketed the domestic prices for certain medicines but also disturbed foreign trade due to the restrictions on exports. The low availability of Key Starting Material (KSM) in India has highlighted the weak points of India's pharmaceutical sector.*

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**Keywords:** Profitability Analysis; Pharmaceutical Industry

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## 1. Introduction

Indian pharma industry did well in formulations and indigenous medicines sector but with the gradual liberalization, the pharma market was flooded with imports from China. The country is heavily importing dependent to fulfill its drug requirements. Around 70% of the pharmaceutical requirements are met by Chinese imports of some basic raw materials, particularly the APIs (Active Pharmaceutical Ingredients) – the bulk components to produce finished drug formulations. These Chinese bulk drugs or APIs cost approximately 1/3rd compared to Indian manufactured APIs. China became the stalwart for API production and exports as they successfully developed cost-effective technologies.

## 2. Methodology

### 2.1 Objective of the Study

Present article is based on the Study of Profitability of Selected Companies of Pharmaceutical Industry

### 2.2 Period of Study

The study period is to be converted 5 years; from 2015-16 to 2019-20.

### 2.3 No. of sample

Researcher has selected 3Pharmaceutical companies of India for the present study.

### 2.4 Tools & Techniques

For the present study Net Profit Margin and Return on Net worth Ratio has considered as an accounting tools and F-Test - ONE WAY ANOVA is used as tools of Statistics.

**(1) Net Profit Margin:** The net profit margin is a profitability ratio that expresses the profit from business operations as a percentage of revenue or net sales. It accounts for all expenses a business faces, not just the cost of goods sold.

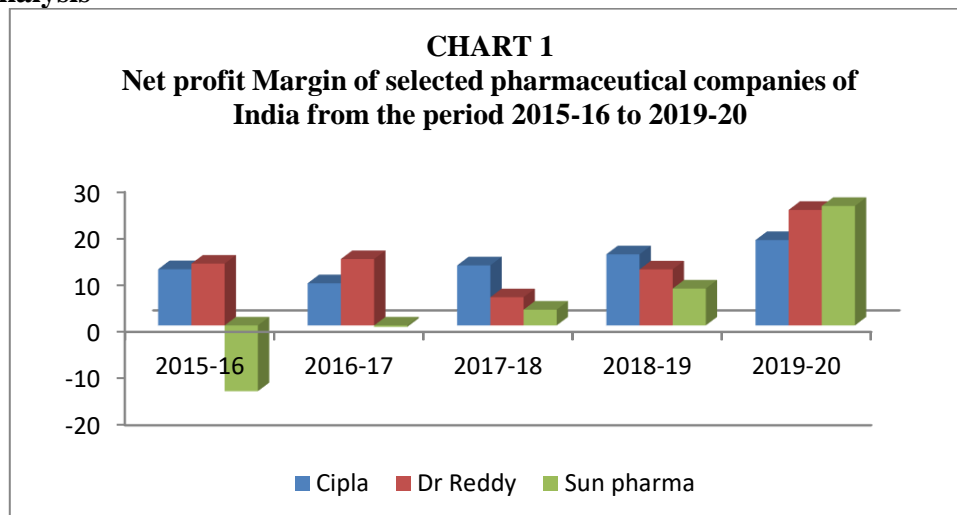
**Table 1: Net Profit Margin of selected pharmaceutical companies of India for the period from 2015-16 To 2019-20**

Year	COMPANY			Total
	Cipla Ltd	Dr Reddy	Sun Pharma	
2015-16	12.06	13.26	(14.09)	11.23
2016-17	9.05	14.24	(0.29)	23.00
2017-18	12.89	06.05	3.39	22.33
2018-19	15.26	12.02	7.92	35.20
2019-20	18.31	24.78	25.62	68.71
<b>TOTAL</b>	<b>67.57</b>	<b>70.35</b>	<b>22.55</b>	<b>160.47</b>
<b>Average</b>	<b>13.51</b>	<b>14.07</b>	<b>04.51</b>	<b>32.09</b>

Source: www.moneycontrol.com

It is evident from the above table that highest Average Net profit margin achieved for Dr Reddy with 14.07 percentage during research period which is followed by Cipla Ltd with 13.51 percentage during research period.

### Graphical Analysis



It is evident from the above chart that highest net profit margin is showing in the year 2019-20 for each research unit under study Sun pharma is showing highest among three research unit in the year 2019-20.

### Statistical Analysis

**Table 2: "F"-Test One Way ANOVA for Net Profit Margin of selected Pharmaceutical Companies of India for the period from 2015-16 to 2019-20**

<b>H<sub>0</sub>: There is No Significant Different between Net Profit Margin of Selected Pharmaceutical Companies of India for the period from 2015-16 to 2019-20</b>					
<b>H<sub>1</sub>: There is Significant Different between Net Profit Margin of Selected Pharmaceutical Companies of India for the period from 2015-16 to 2019-20</b>					
Source of Variation	Sum of Square	Degree of Freedom	Mean Sum of Square	F <sub>c</sub>	F <sub>t</sub>
B.S.S.	287.9579	02	143.979	1.63	3.88
W.S.S.	1059.908	12	88.3256		
T.S.S.	1347.865	14			

From the “F” test one way ANOVA Table as calculated above it shows Calculated value of  $F_c = 1.63$  while tabular value of  $F_t = 3.88$  which show that calculated value  $F_c$  is smaller than tabular value  $F_t$ ,  $F_c < F_t$  Hence Null Hypothesis is accepted and Alternative Hypothesis is rejected that there is no any significant Difference in net profit margin for selected pharmaceutical companies of India during research period.

**(2) Return on Net Worth:** Return on Net Worth is a ratio developed from the perspective of the investor and not the company. By looking at this, the investor sees if the entire net profit was passed on to him, how much return he would be getting. It explains the efficiency of the shareholders’ capital to generate profit.

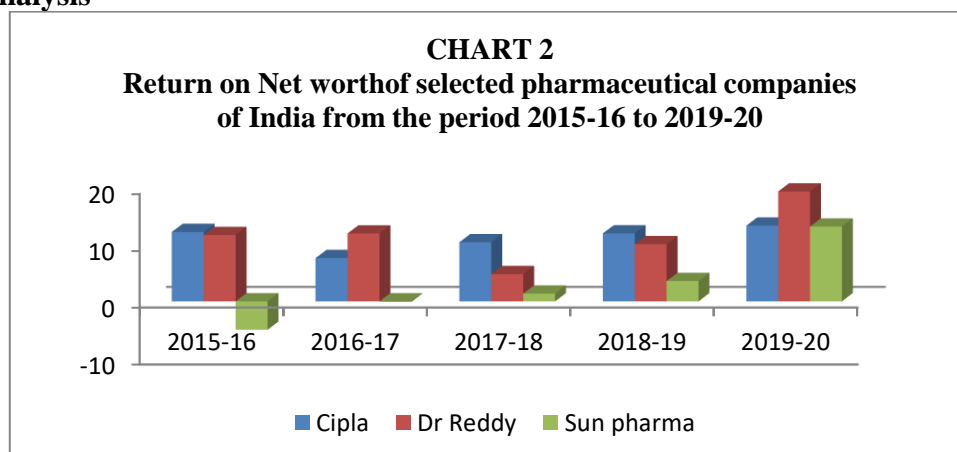
**Table 3: Return on Net Worth of selected pharmaceutical companies of India for the period from 2015-16 To 2019-20**

Year	COMPANY			Total
	Cipla Ltd	Dr Reddy	Sun Pharma	
2015-16	12.20	11.67	(4.99)	18.88
2016-17	7.61	11.93	(0.10)	19.44
2017-18	10.40	04.80	01.36	16.56
2018-19	11.96	10.07	03.57	25.60
2019-20	13.32	19.33	13.16	45.81
TOTAL	55.49	57.80	13.00	126.29
Average	11.10	11.56	2.60	25.26

Source: [www.moneycontrol.com](http://www.moneycontrol.com)

It is evident from the above table that highest Average Return on Net Worth achieved for Dr Reddy with 11.56 percentages during research period which is followed by Cipla Ltd with 11.10 percentages during research period.

### Graphical Analysis



It is evident from the above chart that highest Return on Net Worth is showing in the year 2019-20 for each research unit under study Dr Reddy is showing highest among three research units in the year 2019-20.

**Table 4:“F”-Test One Way ANOVA for Return on Net worth of selected Pharmaceutical Companies of India for the period from 2015-16 to 2019-20**

<b>H<sub>0</sub>: There is No Significant Different between Return on Net Worth of Selected Pharmaceutical Companies of India for the period from 2015-16 to 2019-20</b>					
<b>H<sub>1</sub>: There is Significant Different between Return on Net Worth of Selected Pharmaceutical Companies of India for the period from 2015-16 to 2019-20</b>					
<b>Source of Variation</b>	<b>Sum of Square</b>	<b>Degree of Freedom</b>	<b>Mean Sum of Square</b>	<b>F<sub>c</sub></b>	<b>F<sub>t</sub></b>
<b>B.S.S.</b>	254.5184	02	127.2592	4.97	3.88
<b>W.S.S.</b>	306.8779	12	25.57316		
<b>T.S.S.</b>	561.3963	14			

### 3. Statistical Analysis

From the “F” test one-way ANOVA Table as calculated above it shows Calculated value of  $F_c = 4.97$  while tabular value of  $F_t = 3.88$  which show that calculated value  $F_c$  is greater than tabular value  $F_t$ ,  $F_c > F_t$  Hence Null Hypothesis is rejected and Alternative Hypothesis is accepted that there is significant Difference in Return on Net Worth for selected pharmaceutical companies of India during research period.

### 4. Conclusion

From the above analysis it shows that there is no any significant difference in net profit margin for selected pharmaceutical companies of India during research period while it is having significant difference in Return on Net Worth for selected pharmaceutical companies of India during research period. As Net Profit margin is calculated on company perspective while Return on Net worth is calculated on investor perspective.

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