

Effect of Financial Performance on Profitability in Indian Pharmaceutical Companies

Kankipati Ajay Kumar, A.V.N.Murty



Abstract: *The total Indian pharmaceutical sector is exceedingly divided with in excess of 20,000 enlisted units. It has spread drastically over the most recent two decades. The pharmaceutical and the chemical industries in India is an amazingly separated market with solid value rivalry and government control. The pharmaceutical business in India meets around 705 of the nation's interest in bulk medications, pharmaceutical formulas, synthetics, tablets, oral and injectables. There are around 250 enormous units and around 8,000 SMUs, which structure the centre of the pharmaceutical business in India, including 4 Public sector units. Looking forward, the worldwide drug store market is assessed at more than to 1.5 billion dollars constantly in 2020. The Indian pharmaceutical industry is growing significantly every year. The primary goal of this research unmistakably demonstrates that pharmaceutical organizations are working great as an industry as well as can add growth to the development of the national economy. In this way, we made an attempt to find the effect of financial performance on profitability.*

Keywords : *Pharma industry, financial position, profitability, Indian Pharma Companies.*

I. INTRODUCTION

This "Performance" is "to complete". It alludes to the demonstration of performing; execution, acknowledgement, consistency, and so on. In the marginal sense, execution alludes to the presentation of a given errand estimated regarding pre-set up norms of accuracy, honesty, cost and speed. At the end of the day, it alludes to how much an accomplishment is accomplished or accomplished. In the expressions of Frich Kohlar " performance is a general term connected to a part of the majority of the practices of an association's exercises for a while regularly with reference to past or anticipated gainfulness, the executive's obligation or duty or Similar. In this manner, the introduction, yet the nature of the outcomes accomplished means to the exhibition. performance is utilized to show the achievement, conditions and consistency of the organization. Financial performance

reflects the demonstration[1] of directing a monetary action. The four primary centre regions of budgetary exercises are: Brief profile of the pharmaceutical business The Indian pharmaceutical market is the third biggest as far as volume and the thirteenth biggest as far as[2] worth, as indicated by an Equity Master report. India is the biggest supplier of nonexclusive medications around the world, and Indian generics represent 20 per cent of world fares as far as volume. Recently, the combination[3] has turned into a significant element of the Indian pharmaceutical market, as the business is divided.

II. REVIEW OF LITERATURE

Yadav Pavitra, August 2014 studied to analyse the liquidity position of the selected Pharmaceutical companies. Ratios [4] used are 1. The current ratio, Quick ratio, Absolute Liquidity ratio. Sample units are Procter and Gamble Ltd, Reddy Pharmaceutical Ltd,[5] Cipla Ltd.

M.Srividya, V.Vijayalakshmia 2014 [6] This paper led an examination on the liquidity investigation of those pharmaceutical organizations, for example, Procter and Gamble Ltd., Reddy Pharmaceutical Ltd. furthermore, Cipla Ltd and analyzed them utilizing the present proportion, the proportion of total liquidity, brisk proportion to evaluate which organization has greater liquidity and whose monetary exhibition [7]is the best among them. This examination uncovered that Cipla Ltd's. the liquidity position is better with regards to the present relationship and fast connections, yet with regards to without a doubt the fluid proportion, blended outcomes are found.

Praveen.M and HajaMohideen, September 2014 decide the money related execution of the pharmaceutical organization Cipla utilizing[8] five influence investigates[9] The auxiliary destinations are to look at the connection between stock turnover, indebted person turnover, [10] pivot of lenders and complete turnover of advantages[11] with gross net revenue. The example unit utilized is Cipla Pharmaceutical Ltd.

Fauzi, Fitriya Basyith, Abdul Idris, Muhammad 2013 [12] This examination gave a thought of the idea of budgetary execution utilizing five power breaks down[13] that comprise of the stock turnover rate, the leasers turnover rate, the turnover pace of all-out resources[11] and gross overall revenue. The total results are used to help the researcher [14] depict the pertinent part of monetary execution and the quantitative examination to quantify the level of relationship between the various factors under thought and the agent utilized the relapse investigation[6] to inspect the relationship of the free factor with the reliant variable.

Revised Manuscript Received on October 30, 2019.

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The examination test [15] is Cipla Pharmaceutical Limited. When utilizing the investigation, it was found that the borrower's [13] turnover rate and gross overall revenue have the most astounding standard deviation. The indebted person turnover rate permits [16] assets for the exchange in light of the fact that the pharmaceutical organization [17] Cipla gathers its obligations rapidly from its clients. Jawade Avinash, June 2014 [18] evaluated that the impact of the leverage on the profitability of the company through by Du Pont analysis and to analyse the total aspects of trade-off theory and the pecking order theory for the companies of the different market capitalization [19] as well.

III. OBJECTIVES

- 1) To know the profitability position of the selected five pharmaceutical companies.
- 2) To measure the impact of the factors influencing the profitability of selected five pharmaceutical companies.
- 3) To calculate the liquidity position of five selected pharmaceutical companies.
- 4) To access the long term solvency position of these pharmaceutical companies.
- 5) To test the relationship between the solvency of the company with a net profit margin.
- 6) To test the relationship between the liquidity of the company with an operating profit margin.
- 7) To test the relationship between the operating profit margin with earnings per share.

IV. RESEARCH METHODOLOGY

A. Hypothesis

- After referring books, review of literature, online journals, magazines, discussion with various stakeholders a decision was taken in consultation with a guide depending upon the research gap of the study three hypotheses were identified to develop a model pertaining the research work and to validate the results.
- Hypothesis = H01 There is no significant relationship between solvency and net profit.
 - Hypothesis = H02 There is no significant relationship between operating profit and liquidity.
 - Hypothesis = H03 There is no significant relationship between operating profit and earnings per share.

B. Limitations of the study

Since it is an empirical study, there are many constraints in the research work. Some of the limitations are:

- Selection of samples.
- Selection of variables.
- Availability of data.
- Testing of hypothesis
- Accuracy of the results

C. Sampling

In the present research work the four top pharmaceutical companies in India which are selected namely:

- Cipla Ltd
- Dr.Reddy's laboratories
- Lupin Ltd
- Sun Pharmaceuticals.

V. RESULTS AND ANALYSIS

Hypothesis - H1 There is no significant relationship between solvency and net profit.

CIPLA LTD: Linear Regression

Table I: Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate
1	.317a	.101	.024	31.877

- a. Predictors: (Constant), operating profitratio
- b. Dependent Variable: debttoequity

Table II: ANOVA

Model type	SS	df	MS	F val	Sig
Regression	1347.852	1	1347.851	1.433	.272b
Residual	12125.597	12	1011.482		
Total	13473.567	13			

Result: There is no significant relationship between the net profit ratio and solvency in Cipla Ltd. The net profit ratio and interest cover ratio were not correlated hence the financial health of the company is not good. The analysis indicates that the net profit ratio and interest cover ratio is at the correlation of 27% exists between both the values and each holds at 5% level of significance. The result indicates a weak and negative association between the two variables. The performance of interest cover ratio will be significant subject to solvency, must be higher and expenses should be minimized.

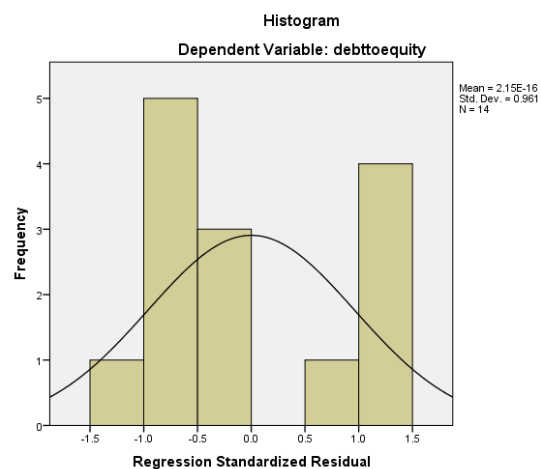


Figure 1: Histogram

Interpretation: The value drives after testing the hypothesis indicate that the balance between Net profit ratio and Solvency ratio is not balanced by the company and the alternative hypothesis is rejected. So, the measure taken by the company in regards is not appreciated.

DR.REDDY'S:

Table III: Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate
1	.275a	.076	.005	8.15575

a. Predictors: (Constant), interestcover
b. Dependent Variable: netprofitratio

Table IV: ANOVA

Model type	SS	df	MS	F val	Sig
Regression	70.898	1	70.898	1.066	.321b
Residual	864.712	13	66.516		
Total	935.611	14			

a. Dependent Variable: net profit ratio
b. Predictors: (Constant), interest cover

Result: Dr.reddy's pharmaceutical industry. The net profit ratio and interest cover ratio were not correlated hence the financial health of the company is not good. The analysis indicates that the net profit ratio and interest cover ratio is at the correlation of 32% exists between both the values and each holds at 5% level of significance. The result indicates a weak and negative association between the two variables. The performance of interest cover ratio will be significant subject to solvency, must be higher and expenses should be minimized.

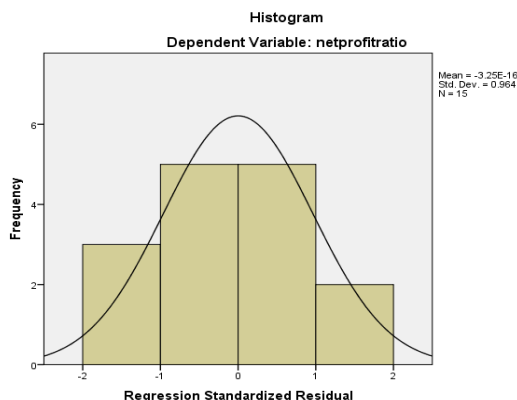


Figure 2: Histogram

Interpretation: The value drives after testing the hypothesis indicate that the balance between Net profit ratio and Solvency ratio is not balanced by the company and the alternate hypothesis is rejected. So, the measure taken by the company in regards is not appreciated

LUPIN LTD

Table V: Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate
1	.501a	.251	.194	4.64878

a. Predictors: (Constant), interestcover
b. Dependent Variable: netprofitratio

Table VI: ANOVA

Model type	SS	Df	MS	F val	Sig
Regression	94.356	1	94.356	4.366	.057b
Residual	280.945	13	21.611		
Total	375.300	14			

a. Dependent Variable: net profit ratio
b. Predictors: (Constant), interest cover

There is a significant relationship between the net profit ratio and solvency in Lupin Ltd. The net profit ratio and interest cover ratio were not correlated hence the financial health of the company is not good. The analysis indicates that the net profit ratio and interest cover ratio is at the correlation of 5% exists between both the values and each holds at 5% level of significance. The result indicates a strong and positive association between the two variables. The performance of interest cover ratio will be a significant subject to solvency is good and with this, the net profit of the company is also increasing.

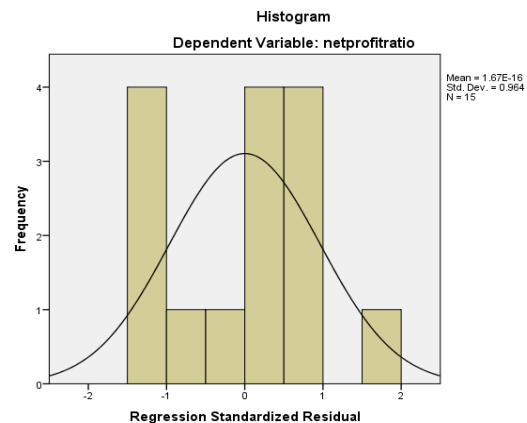


Figure 3: Histogram

Interpretation: The value drives after testing the hypothesis indicate that the balance between Net profit ratio and Solvency ratio is balanced by the company and the alternate hypothesis is accepted. So, the measure taken by the company in regards is appreciated.

SUN PHARMA

Table VII: Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate
1	.050a	.003	-0.88	84.3755

a. Predictors: (Constant), intrestcover
 b. Dependent Variable: netprofitratio

Table VIII: ANOVA

Model type	SS	df	MS	F val	Sig
Regression	198.026	1	198.026	.028	.871b
Residual	78315.243	11	7119.568		
Total	78513.269	12			

a. Dependent Variable: netprofitratio
 b. Predictors: (Constant), intrestcover

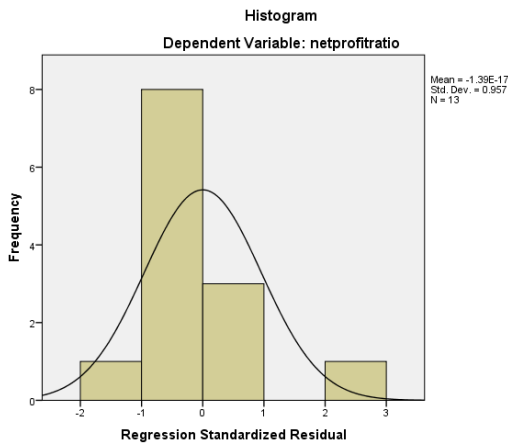


Figure 4: Histogram

Hypothesis H2: There is no significant relationship between operating profit and liquidity.

CIPLA LTD

Table IX: Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate
1	.316a	.100	.025	31.78666

a. Predictors: (Constant), operatingprofitratio
 b. Dependent Variable: debttoequity

Table X: ANOVA

Model type	SS	df	MS	F val	Sig
Regression	1346.960	1	1346.960	1.333	.271b

Residual	12124.698	12	1010.391		
Total	13471.658	13			

a. Dependent Variable: debt to equity
 b. Predictors: (Constant), operating profit ratio

Analysis: There is no significant relationship between operating ratio and liquidity in Cipla Ltd. The net profit ratio and interest cover ratio were not correlated hence the financial health of the company is not good. The analysis indicates that the net profit ratio and interest cover ratio is at the correlation of 27% exists between both the values and each holds at 5% level of significance. The result indicates a weak and negative association between the two variables. The performance of interest cover ratio will be significant subject to solvency, must be higher and expenses should be minimized.

DR.REDDY'S LABORATORIES

Table XI: Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate
1	.078a	.006	-.070	.38128

a. Predictors: (Constant), operating profit ratio
 b. Dependent Variable: debt to equity

Table XII: ANOVA

Model type	SS	df	MS	F val	Sig
Regression	.012	1	.012	.080	.782b
Residual	1.890	13	.145		
Total	1.901	14			

a. Dependent Variable: debt to equity
 b. Predictors: (Constant), operating profit ratio

Analysis: There is no significant relationship between the net profit ratio and solvency in Dr.reddy's pharmaceutical industry. The net profit ratio and interest cover ratio were not correlated hence the financial health of the company is not good. The analysis indicates that the net profit ratio and interest cover ratio is at the correlation of 78% exists between both the values and each holds at 5% level of significance. The result indicates a weak and negative association between the two variables. The performance of interest cover ratio will be significant subject to solvency, must be higher and expenses should be minimized.

LUPIN LTD:

Table XIII: Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate
1	.736a	.542	.506	.46283

- a. Predictors: (Constant), operating profit ratio
- b. Dependent Variable: debt to equity

Table XIV: ANOVA

Model type	SS	df	MS	F val	Sig
Regression	3.291	1	3.291	15.361	.002b
Residual	2.785	13	.214		
Total	6.075	14			

- a. Dependent Variable: debt to equity
- b. Predictors: (Constant), operating profit ratio

Analysis: There is a strong and significant relationship between operating profit and liquidity in the Pfizer company. The net profit ratio and interest cover ratio were not correlated hence the financial health of the company is not good. The analysis indicates that the net profit ratio and interest cover ratio is at the correlation of 2% exists between both the values and each holds at 5% level of significance. The result indicates a strong and positive association between the two variables.

SUN PHARMACEUTICAL

Table XV: Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate
1	.547a	.299	.241	.30396

- a. Predictors: (Constant), operating profit ratio
- b. Dependent Variable: debt to equity

Table XVI: ANOVA

Model type	SS	df	MS	F val	Sig
Regression	.473	1	.473	5.117	.043b
Residual	1.109	12	.092		
Total	1.581	13			

- a. Dependent Variable: debt to equity
- b. Predictors: (Constant), operating profit ratio

Analysis: There is a significant relationship between net operating profit and liquidity in Sun pharma ltd. The net profit

ratio and interest cover ratio were not correlated hence the financial health of the company is not good. The analysis indicates that the net profit ratio and interest cover ratio is at the correlation of 4% exists between both the values and each holds at 5% level of significance. The result indicates a strong and positive association between the two variables.

Hypothesis H3: There is no significant relationship between operating profit and earnings per share.

CIPLA LTD

Table XVII: Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate
1	.333a	.111	.042	5.11852

- a. Predictors: (Constant), operating profit ratio
- b. Dependent Variable: eps

Table XVIII: ANOVA

Model type	SS	df	MS	F val	Sig
Regression	42.411	1	42.411	1.619	.226b
Residual	340.591	13	26.199		
Total	383.002	14			

- a. Dependent Variable: eps
- b. Predictors: (Constant), operating profit ratio

Analysis: There is no significant relationship between operating profit and earnings per share in Cipla ltd... The analysis indicates that the operating profit and earnings per share are at the correlation of 22% exists between both the values and each holds at 5% level of significance. The result indicates a weak and negative association between the two variables.

DR.REDDY'S LABORATORIES

Table XIX: Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate
1	.792a	.627	.599	18.17512

- a. Predictors: (Constant), operating profit ratio
- b. Dependent Variable: eps

Table XX: ANOVA

Model type	SS	df	MS	F val	Sig
Regression	7229.421	1	7229.421	21.885	.000b
Residual	4294.356	13	330.335		
Total	11523.777	14			

a. Dependent Variable: eps

b. Predictors: (Constant), operating profit ratio

Analysis: There is a significant relationship between operating profit and eps in Dr.reddy's Laboratories. The analysis indicates that the operating profit and EPS is at the correlation of 0% exists between both the values and each holds at 5% level of significance. The result indicates a high positive association between the two variables.

LUPIN

Table XXI: Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate
1	.480a	.231	.171	16.45349

a. Predictors: (Constant), operating profit ratio

b. Dependent Variable: eps

Table XXII: ANOVA

Model type	SS	df	MS	F val	Sig
Regression	1054.542	1	1054.542	3.895	.070b
Residual	3519.324	13	270.717		
Total	4573.866	14			

a. Dependent Variable: eps

b. Predictors: (Constant), operating profit ratio

Analysis: There is no significant relationship between operating profit and EPS in Lupin Ltd. The analysis indicates that operating profit and EPS are a correlation of 7% exists between both the values and each holds at 5% level of significance. The result indicates a weak and negative association between the two variables.

SUN PHARMA

Table XXIII: Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate
1	.480a	.231	.171	16.45349

a. Predictors: (Constant), operating profit ratio

b. Dependent Variable: eps

Table XXIV: ANOVA

Model type	SS	df	MS	F val	Sig
Regression	5.587	1	5.587	.021	.887b
Residual	3432.059	13	264.005		
Total	3437.646	14			

a. Dependent Variable: eps

b. Predictors: (Constant), operating profit ratio

Analysis: There is no significant relationship between operating profit and EPS in Sun pharmaceutical Industry. The analysis indicates that the operating profit and EPS is at the correlation of 88% exists between both the values and each holds at 5% level of significance. The result indicates a weak and negative association between the two variables.

Findings

- The health sector is considered to be very important to any industrial support to the health care of the people of the country.
- The pharma industries play a dominating role in the Indian corporate structure as well as global structure in playing a very important role.
- The present topic was finalized after making a thorough review of the literature and after finding a gap.
- The very objective of the study was to know the financial performance of the selected pharma industries and the capacity to generate revenue.
- Five companies were randomly selected with financial statements of 15 years from 2002-2016.
- The objective of the study was to establish the relationship between the select dependent and independent variables.
- Some of the dependent variables are net profit ratio, liquidity ratio, earning per share ratio, as an independent variable and its impact on net profit and operating profit ratios.
- As many as three hypotheses were constructed to standardize the data through ratio analysis and to load the data in SPSS package to run simple linear regression model and to validate the result at a given level of significance.
- All the 3 hypotheses supported the study and there was a very good response between the combination of dependent and independent variables. So it is clear that there is an impact of profitability on the financial performance of the pharma companies. However, consistency in efforts must be put so that there is a good balance between the financial performance and profitability of the companies.

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Kankipati Ajay Kumar, PhD Research scholar KLU Business School, Koneru Lakshmaiah Education Foundation, Greenfields, Vaddeswaram, Guntur Dist., Andhra Pradesh, 522502, India. He has proficient knowledge in internal quality assurance of colleges and universities. Such NAAC, UGC, AICTE Works along with good teaching skills. Nowadays accreditation became mandatory for all the colleges and universities to make their institutions more innovative and quality-oriented. So that delivering that services is the on the job. Earlier delivered services as entrepreneurship coordinator in the university. Being a research scholar, trying to explore more knowledge in the area of research as well as contributions that knowledge to society.



Dr. A. V. N. MURTY, Professor KLU Business School, Koneru Lakshmaiah Education Foundation, Greenfields, Vaddeswaram, Guntur Dist., Andhra Pradesh, 522502, India. He has sound knowledge in the field of research, he guided more than 20 research scholars under his guidance, being a professor he published more number of journal research papers and contributed more to innovative teaching methodologies as well. Being professor he has published few books for the society to explore into new competitive world and under his guidance now more than ten research scholars are doing their Ph.D. along with that he has delivered number of guest lectures in reputed universities and in international conferences.