

International Multidisciplinary  
Research Journal

*Indian Streams  
Research Journal*

Executive Editor  
Ashok Yakkaldevi

Editor-in-Chief  
H.N.Jagtap

---

Indian Streams Research Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial board. Readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

### Regional Editor

Dr. T. Manichander

Mr. Dikonda Govardhan Krushanahari  
Professor and Researcher ,  
Rayat shikshan sanstha's, Rajarshi Chhatrapati Shahu College, Kolhapur.

### International Advisory Board

Kamani Perera  
Regional Center For Strategic Studies, Sri Lanka

Mohammad Hailat  
Dept. of Mathematical Sciences,  
University of South Carolina Aiken

Hasan Baktir  
English Language and Literature  
Department, Kayseri

Janaki Sinnasamy  
Librarian, University of Malaya

Abdullah Sabbagh  
Engineering Studies, Sydney

Ghayoor Abbas Chotana  
Dept of Chemistry, Lahore University of  
Management Sciences[PK]

Romona Mihaila  
Spiru Haret University, Romania

Ecaterina Patrascu  
Spiru Haret University, Bucharest

Anna Maria Constantinovici  
AL. I. Cuza University, Romania

Delia Serbescu  
Spiru Haret University, Bucharest,  
Romania

Loredana Bosca  
Spiru Haret University, Romania

Ilie Pintea,  
Spiru Haret University, Romania

Anurag Misra  
DBS College, Kanpur

Fabricio Moraes de Almeida  
Federal University of Rondonia, Brazil

Xiaohua Yang  
PhD, USA

Titus PopPhD, Partium Christian  
University, Oradea, Romania

George - Calin SERITAN  
Faculty of Philosophy and Socio-Political  
Sciences Al. I. Cuza University, Iasi

.....More

### Editorial Board

Pratap Vyamktrao Naikwade  
ASP College Devrukh, Ratnagiri, MS India

Iresh Swami  
Ex - VC. Solapur University, Solapur

Rajendra Shendge  
Director, B.C.U.D. Solapur University,  
Solapur

R. R. Patil  
Head Geology Department Solapur  
University, Solapur

N.S. Dhaygude  
Ex. Prin. Dayanand College, Solapur

R. R. Yallickar  
Director Management Institute, Solapur

Rama Bhosale  
Prin. and Jt. Director Higher Education,  
Panvel

Narendra Kadu  
Jt. Director Higher Education, Pune

Umesh Rajderkar  
Head Humanities & Social Science  
YCMOU, Nashik

Salve R. N.  
Department of Sociology, Shivaji  
University, Kolhapur

K. M. Bhandarkar  
Praful Patel College of Education, Gondia

S. R. Pandya  
Head Education Dept. Mumbai University,  
Mumbai

Govind P. Shinde  
Bharati Vidyapeeth School of Distance  
Education Center, Navi Mumbai

G. P. Patankar  
S. D. M. Degree College, Honavar, Karnataka

Alka Darshan Shrivastava  
Shaskiya Snatkottar Mahavidyalaya, Dhar

Chakane Sanjay Dnyaneshwar  
Arts, Science & Commerce College,  
Indapur, Pune

Maj. S. Bakhtiar Choudhary  
Director, Hyderabad AP India.

Rahul Shriram Sudke  
Devi Ahilya Vishwavidyalaya, Indore

Awadhesh Kumar Shirotiya  
Secretary, Play India Play, Meerut (U.P.)

S. Parvathi Devi  
Ph.D.-University of Allahabad

S. KANNAN  
Annamalai University, TN

Sonal Singh,  
Vikram University, Ujjain

Satish Kumar Kalhotra  
Maulana Azad National Urdu University



## IMPACT OF FINANCIAL LEVERAGE ON FINANCIAL PERFORMANCE: A CASE STUDY OF CIPLA LTD.

**Miss Deepika Darshan**

PhD Scholar at Bilaspur University, Chhattisgarh.

### ABSTRACT

**L**everage is the key decision area in financial management. This study investigates the relationship between financial leverage and financial performance and to study the impact of financial leverage on financial performance in Cipla Ltd. It is a general concept that financial leverage and financial performance has positive relationship. Present study is conducted to explore the fact and for this purpose secondary data has been collected from the annual report from year 2006 to 2015. In the paper, debt equity ratio is taken as a measure for financial leverage and earning per share (EPS), net profit margin (NPM), and return on assets (ROA) are taken as dependent variable to measure financial performance of the company.

**KEYWORDS** :Financial leverage, Earning per share, Net profit margin & Return on assets.

### 1. INTRODUCTION

#### 1.1 Company Profile and conceptual framework

Cipla Ltd is one of the top company in pharmaceutical industry in India, whose goal is to ensure that no patient shall be denied access to high quality & affordable medicine and support. The overall performance of company is good, needless to say you should invest in a company.

Debt equity ratio: It varies across industries but many companies have a ratio larger than 1. The ideal debt equity ratio in India is accepted as 2:1. Which means that long term liabilities of the business should ideally be 2 times of shareholder's fund. Higher debt equity ratio shows lesser margin for long term lenders. This ratio indicates to



what extent the firm depends on outsiders' fund for existence. The debt to equity ratio is a financial, liquidity ratio that compares a company's total debt to total equity. It shows the percentage of company financing that comes from creditors and investors. A higher debt to equity ratio indicates that more creditor financing (bank loans) is used than investor financing (shareholders). A lower debt to equity ratio usually implies a more financially stable business

$$\text{Debt equity ratio} = \frac{\text{long term loans}}{\text{Shareholder's fund}}$$

If the ratio is very high, raising more cash through borrowing could be difficult

**Net profit margin percentage:** Another important ratio is net profit margin

percentage. Net profit ratio establishes relationship between net profit and net sales. It shows the operational efficiency of the business. It tells us how much out of every sales CIPLA gets to keep after everything else has been paid for. It is highly variable from one industry sector to another. An ideal company has consistent profit margins. NPM directly measures how well a company manages its expenses related to its net sales. Creditors and investors use this ratio to measure how effectively a company can convert sales into net income. Investors want to make sure profits are high enough to distribute dividends while creditors want to make sure the company has enough profits to pay back its loans. It also indirectly measures its expenses related to its net sales. That is why companies strive to achieve higher ratios. The formula to calculate the ratio is:

$$\text{Net profit margin} = \frac{\text{net profit} \times 100}{\text{Net sales}}$$

Decrease in the ratio indicates managerial inefficiency and excessive selling and distribution expenses

**Earning per share :** The another important indicator of financial performance is Earning per share. The ratio measures the return per share receivable by equity shareholders virtually who are the owner of the company. Higher earning per share shows better future prospects of the company. Although many investors don't pay much attention to the EPS, a higher earnings per share ratio often makes the stock price of a company rise. Since so many things can manipulate this ratio, investors tend to look at it but don't let it influence their decisions drastically. The formula to calculate the ratio is:

$$\text{Earning per share} = \frac{\text{Net profit} - \text{preference dividend}}{\text{Number of equity shares}}$$

**Return on asset (ROA):** It is also important ratio which help both management and investor to see how well company can convert its investment in assets into profits. ROA is calculated by dividing net income by average total assets. ROA measures how efficiently a company can manage its assets to produce profits during a period. It help both management and investor to see how well company can convert its investment in assets into profits. The formula to calculate the ratio is:

$$\text{Return on assets} = \frac{\text{Net income}}{\text{Average total assets}}$$

Higher ratio is more favorable to investors because it shows that the company is more effectively managing its assets to produce greater amounts of net income.

## 1.2 Need of the study

In the modern world the market conditions are highly unexpected and it is difficult to take decisions for the stakeholders where future is uncertain, this requires in depth knowledes and research work before their rational investment decision. This study provides useful information to CIPLA company to take financing decision, which will maximize their shareholder's wealth as leverage influences the profitability and financial performance of the company and study will helpful also for investors in the company to take investment decisions.

### 1.3 Objective and hypothesis

The objective of the paper is to study the relationship between the financial leverage and financial performance of the company and to investigate the impact of debt equity ratio (D/E Ratio) on net profit margin (NPM), return on assets (ROA) and earning per share (EPS).

#### Hypothesis

H1 : There is a negative correlation between D/E ratio and NPM.

H2 : There is a positive correlation between D/E ratio and ROA.

H3 : There is a positive correlation between D/E ratio and EPS.

H4 : There is a significant effect of D/E ratio on NPM

H5 : There is a significant effect of D/E ratio on ROA

H6 : There is a significant effect of D/E ratio on EPS

## 2.LITERATURE REVIEW

Rehman (2013) had studied the relationship between financial leverage and financial performance of listed sugar companies of Pakistan. The objective of the study was to investigate the influence of financial leverage on financial performance and to investigate whether financial leverage has an effect on financial performance. Evidence demonstrated that there is a positive relationship of debt equity ratio with return on assets and sales growth, and negative relationship of debt equity ratio with earning per share, net profit margin and return on equity.

Rajni Saini (2012) had investigated the influence of financial leverage on shareholders return and market capitalization. Empirical evidence of telecommunication sector companies, India. The research evidence of the study indicates that there is positive relationship between financial leverage and shareholder return but negative relationship between financial leverage and market capitalization. Nirajini A & Priya KB (2013) had investigated the impact of capital structure on financial performance of the listed trading companies in Sri Lanka and to identify the company's capital structure and the nature of relationship between debt and equity. Correlation analysis showed that there is a positive relationship between capital structure variables and financial performance variables and also capital structure is significantly impact on financial performance of the firm.

Elangkumaran.P; Nimalathan.B (2013) had investigated the impact of leverage on earnings and share price of listed companies on Colombo Stock Exchange in Sri Lanka. The study used the degree of operating leverage, degree of financial leverage and degree of combined leverage as independent variables and earning per share and share price were used as dependent variable. From the study it was found that there is no significant relationship between DOL & EPS, DFL & EPS, DCL & EPS, DOL and SP, DFL and SP and DCL and SP. Thus fixed operating expenses and the financing mix decisions of the firm are not significantly affect the earning capacity of the listed companies in CSE.

## 3.RESEARCH METHODOLOGY

### 3.1 Research design

In this study analytical and descriptive research design is adopted which explores the existing information, analyzed and interpret result in meaningful way. The emphasis here is on studying a situation in order to explain the relationship between variables. The study aims to understand and analyze the effect of financial leverage on NPM, ROA and EPS of CIPLA Ltd by using statistical tools.

### 3.2 Sample size

There are number of pharmaceuticals company in India among them the most profitable company CIPLA Ltd. is selected. The study covered the period from 2004 to 2015.

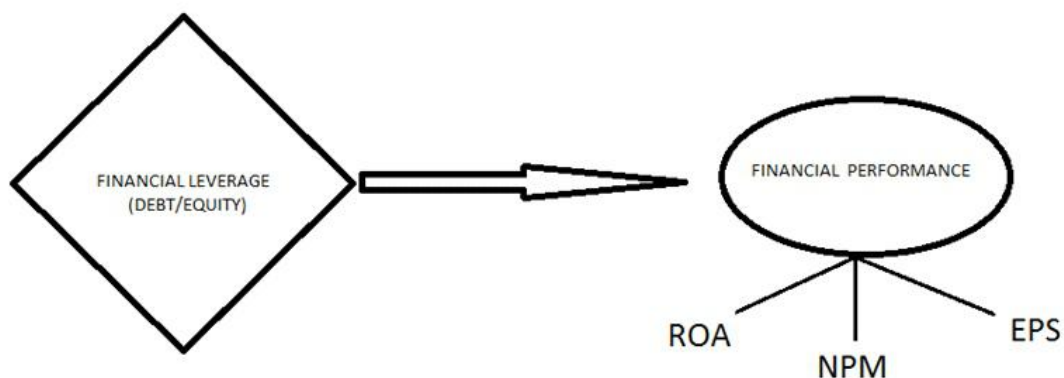
### 3.3 Method of data collection

The secondary data was collected from the annual report available on official website of CIPLA ltd. and moneycontrol.com. The collected data was processed and analysed in order to make the study useful to the researchers, planners, policymakers and company itself.

### 3.4 Variables description

Financial performance is used as dependent variable, where NPM, ROA & EPS are used to measure the financial performance. Financial leverage is taken as independent variable, where debt equity ratio is used to measure the financial leverage of the company.

## 4. CONCEPTUAL MODEL

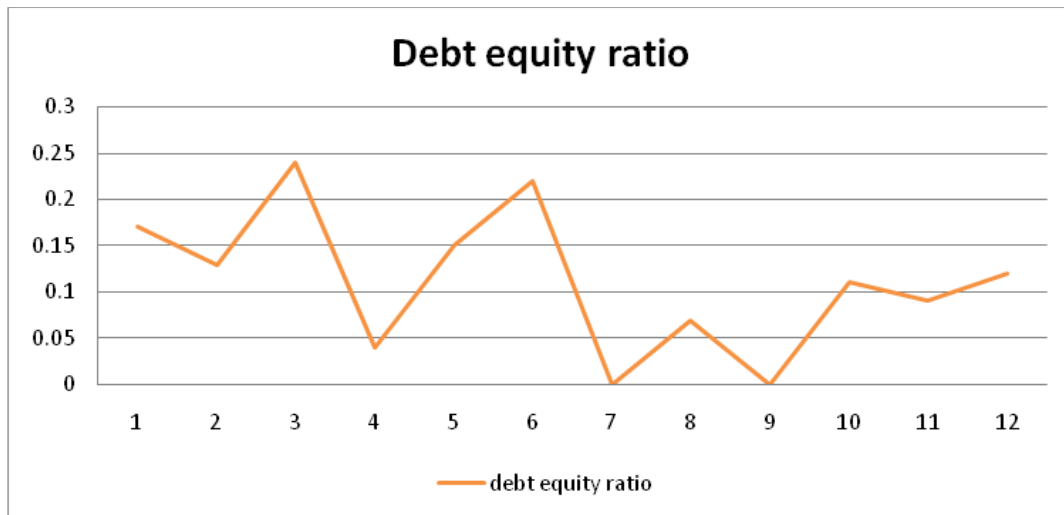


## 5. DATA ANALYSIS AND DISCUSSION

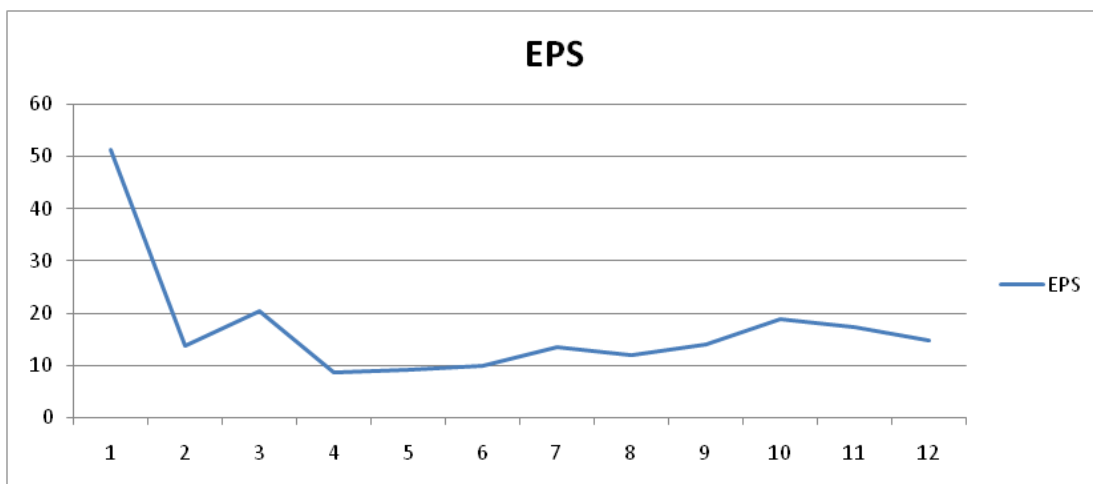
TABLE 5.1 DATA OF THE VARIABLES

Sr. No	Year	Debt equity ratio	EPS (Rs.)	NPM(%)	ROA (%)
1	2004	0.17	51.14	15.37	13.31
2	2005	0.13	13.66	18.16	15.65
3	2006	0.24	20.26	20.38	17.57
4	2007	0.04	8.59	18.75	15.13
5	2008	0.15	9.02	16.68	12.23
6	2009	0.22	9.99	14.84	11.32
7	2010	0	13.47	19.29	12.8
8	2011	0.07	11.96	15.16	11.36
9	2012	0	14	16.1	12.49
10	2013	0.11	18.77	18.37	13.11
11	2014	0.09	17.29	14.8	10.74
12	2015	0.12	14.71	11.65	7.77

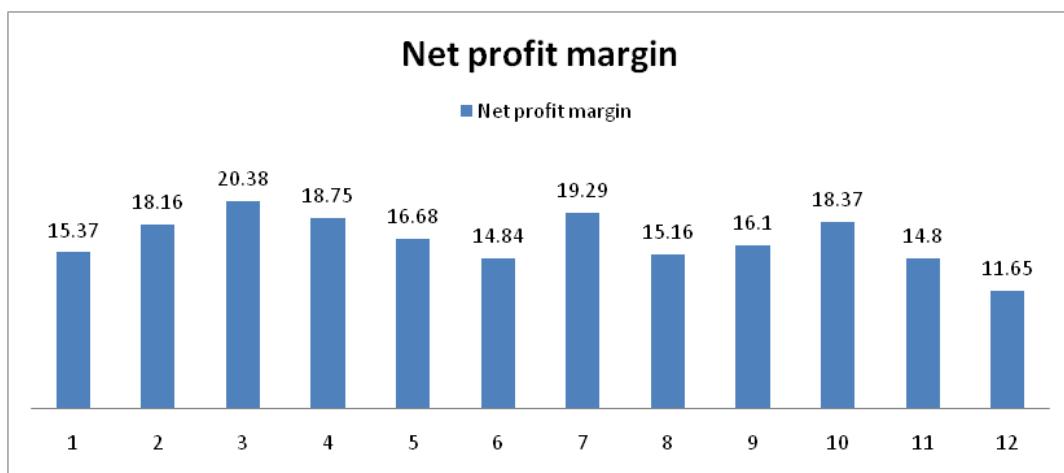
**5.2 DEBT EQUITY RATIO** shows a fluctuating trend during the study period from 2004 to 2015



**5.3 EARNING PER SHARE**

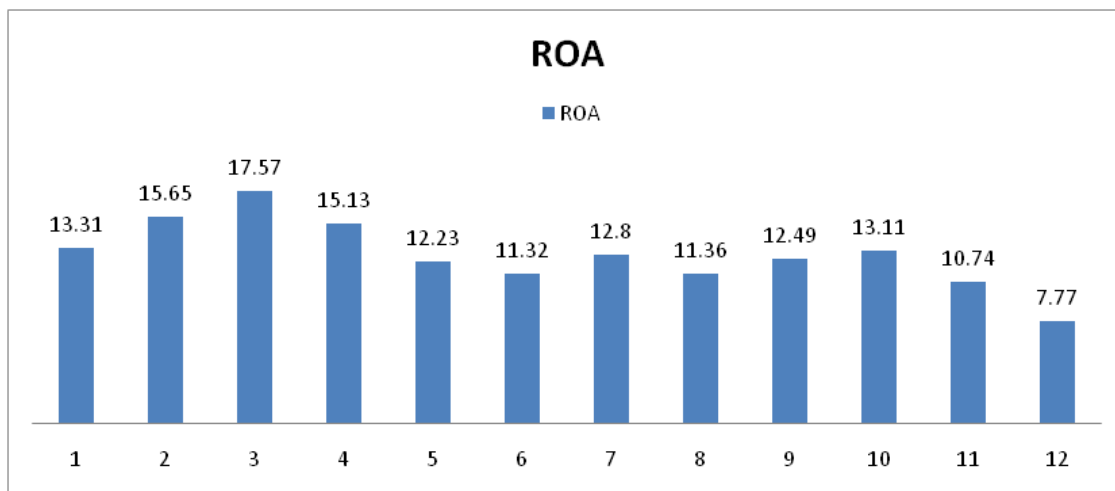


**5.4 NET PROFIT MARGIN**





### 5.5 RETURN ON ASSETS



### 6. CORRELATION ANALYSIS

Correlation analysis is an important statistical tool which helps in determining the relationship between two or more variables

#### Correlation Matrix

Variable	debt equity ratio	EPS	Net profit margin	ROA
debt equity ratio	1			
EPS	0.289	1		
Net profit margin	-0.043	-0.091	1	
ROA	0.205	0.121	0.886	1

The above correlation table indicates the relationship between debt equity ratio, EPS, Net profit margin and ROA are as follows,

#### 1. H1 : There is a negative correlation between D/E ratio and NPM

The matrix spot that the correlation between D/E ratio and NPM is weak negative correlation. As this ratio tells that how much additional dollar earned by the company has effect on profits. The negative relation between D/E ratio and NPM ratio indicates that as debt increases, net profit of the company tent to decrease, because most of the revenues are used to pay off the debts. So , NPM ratio will also decrease. Therefore hypothesis is accepted. Hence there exist insignificant negative relationship between D/E ratio and NPM.

#### 2. H2 : There is a positive correlation between D/E ratio and ROA.

The correlation between D/E ratio and ROA is weak positive correlation. This indicates that the assets which are financed by the debt have greater returns. Therefore hypothesis is accepted. Hence there exist insignificant positive relationship between D/E ratio and ROA.



**3. H3 : There is a positive correlation between D/E ratio and EPS.**

The correlation between D/E ratio and EPS is weak positive correlation. It means that the financial leverage has acted favourably and debt capital is used by the company to increase the earning per share of CIPLA company. Therefore hypothesis is accepted. Hence there exist insignificant positive relationship between D/E ratio and EPS.

**7. REGRESSION ANALYSIS**

Regression analysis is a mathematical method to measure the impact of one (independent) variable on another (dependent) variable.

**H4 : There is a significant effect of D/E ratio on NPM**

<i>Regression Statistics</i>	
Multiple R	0.0428
R Square	0.0018
Adjusted R Square	-0.0980
Standard Error	0.0810
Observations	12

R squared is the proportion of variation in the dependent variable explained by the regression model. Regression analysis between D/E ratio on NPM is 0.0018. this shows NPM is not attributed by D/E ratio.

<b>ANOVA of the sample</b>					
<i>Model</i>	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.000121	0.000121	0.018374	0.895
Residual	10	0.065646	0.006565		
Total	11	0.065767			

The P value is 0.895. which stated that NPM can not be explain by D/E ratio. This implies that there is no significant effect of D/E ratio on NPM.

**H5 : There is a significant effect of D/E ratio on ROA**

<i>Regression Statistics</i>	
Multiple R	0.2046
R Square	0.0419
Adjusted R Square	-0.0539
Standard Error	0.0794
Observations	12

When we consider the coefficient of determination (R Square ) of D/E ratio on ROA is 0.041. This shows only 4% variance in ROA is attributed by D/E ratio. 96% of the variation is explained by other factors determining the ROA.

ANOVA of the Sample					
<i>Model</i>	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.002753	0.002753	0.43696032	0.524
Residual	10	0.063013	0.006301		
Total	11	0.065767			

The P value is 0.524. Which stated that ROA can not be explain by D/E ratio. This implies that there is no significant effect of D/E ratio on ROA.

**H6 : There is a significant effect of D/E ratio on EPS**

<i>Regression Statistics</i>	
Multiple R	0.2888
R Square	0.0834
Adjusted R Square	-0.0083
Standard Error	0.0776
Observations	12

The coefficient of determination (R Square ) of D/E ratio on EPS is 0.083. This shows only 8% variance in EPS is attributed by D/E ratio. Remaining 92% of the variation is explained by other factors determining the EPS

ANOVA of the Sample					
<i>Model</i>	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.005485396	0.005485	0.909967	0.363
Residual	10	0.060281271	0.006028		
Total	11	0.065766667			

The P value is 0.363. Which stated that EPS can not be explain by D/E ratio. This implies that there is no significant effect of D/E ratio on EPS.

**8.CONCLUSION**

In this paper the researcher has concentrated on data presentation, data analysis and hypothesis testing. The aim of the study is to investigate the relationship between the financial leverage and financial performance of the company and to investigate the impact of debt equity ratio (D/E Ratio) on net profit margin (NPM), return on assets (ROA) and earning per share (EPS).Financial performance is used as dependent variable, where NPM, ROA & EPS are used to measure the financial performance. Financial leverage is taken as independent variable, where debt equity ratio is used to measure the financial leverage of the company.The results shows the positive relationship of D/E ratio with ROA and EPS. And there is negative relationship of D/E ratio with NPM. And also the impact of financial leverage on NPM, ROA & EPS is statistically insignificant. The change in ROA due to D/E ratio is only 4% and change in EPS is only 8% which is not significant. So CIPLA company should make optimum mix of debt and equity to have significant impact on financial performance.

## 9. SUGGESTIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

Further researchers may extend study period and may also take all the companies in pharmaceutical industry in India. Researcher can also conduct comparative study by taking data from different sectors to check the relationship between financial leverage and financial performance.

## 10. REFERENCES

- 1.Rehman (2013). "Relationship between financial leverage and financial performance: Empirical evidence of listed sugar companies of Pakistan". University of Gujrat, Pakistan.
- 2.Nirajini,A & Priya,K B.(2013) "Impact of capital structure on financial performance of the listed trading companies in Sri Lanka". Department of financial management, University of Jaffna, Sri Lanka.
- 3.P.Elangkumaran& B Nimalathan (2013). "Leverage and its impact on earnings and share price: A special reference to listed companies of Colombo Stock Exchange in Sri Lanka. International Journal of Technological Exploration and Learning.
- 4.Ahmad N, Salman A, Shamsi A F (2015). "Impact of financial leverage on firm's profitability: An investigation from cement sector of Pakistan". Research journal of finance and accounting.
- 5.Kumar M R (2014). "An emperical study on relationship between leverage and profitability in Bata India Limited". International journal of advance research in computer science and management studies.



**Miss Deepika Darshan**

**PhD Scholar at Bilaspur University, Chhattisgarh.**

# Publish Research Article

## International Level Multidisciplinary Research Journal For All Subjects

Dear Sir/Mam,

We invite unpublished Research Paper, Summary of Research Project, Theses, Books and Book Review for publication, you will be pleased to know that our journals are

### Associated and Indexed, India

- ★ International Scientific Journal Consortium
- ★ OPEN J-GATE

### Associated and Indexed, USA

- Google Scholar
- EBSCO
- DOAJ
- Index Copernicus
- Publication Index
- Academic Journal Database
- Contemporary Research Index
- Academic Paper Database
- Digital Journals Database
- Current Index to Scholarly Journals
- Elite Scientific Journal Archive
- Directory Of Academic Resources
- Scholar Journal Index
- Recent Science Index
- Scientific Resources Database
- Directory Of Research Journal Indexing

Indian Streams Research Journal  
258/34 Raviwar Peth Solapur-413005, Maharashtra  
Contact-9595359435  
E-Mail-[ayisrj@yahoo.in](mailto:ayisrj@yahoo.in)/[ayisrj2011@gmail.com](mailto:ayisrj2011@gmail.com)  
Website : [www.oldisrj.lbp.world](http://www.oldisrj.lbp.world)