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Impact of Capital Structure Components Analysis on Selected IT Companies in India

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***Abstract*: Optimal capital structure is always a major concern of an organization. There are many scientists who drawn theories in order depict the optimal structure based on different conditions and beliefs. Both the classification of capital structure (Equity and Debt) are at their own advantages and disadvantages. The equity is more favourable in the growing phase of any organization, whereas debt is beneficial in reducing tax burden and which enhances returns to the shareholders These two can be as a double edged sword and it is the organization which has to take the decision to hang over such sword in order to have a cutting edge against its competitors. This study intend to identify some basic ratios as the determinants or components to capital structure formation decision. Those are Equity Ratio, Long Term Debt Ratio, and Leverage Ratio, Earning Per Share, return on Equity and are divided into dependent and independent variables for the purpose of analysis. The data of top five IT companies in India based on market capitalisation for a period of three years (2016-18) has been considered. The use of mean, standard deviation, correlation and regression(multiple) has been done to find out the effects and relative changes among the variables selected. The results specified that the IT companies are mostly equity oriented but, if we observe the company with both equity and debt at a balance level are the one which gain the top position in the market with high returns.**

***Keywords*: Optimal capital structure, Determinants, Components, Leverage, Profitability, Earning per share, Return on equity, Equity capitalization.**

1. Introduction

Capital structure plays a vital role in determining the risk level of the company and also the fixed financial charges. The risk level and fixed financial charges should be kept low in order to cope up with the uncertainties. The basic element is how long we can keep constantly low and to what extent it effects the EPS. The term capital structure is the proportion between debt and equity, where equity includes paid-up-capital, share premium and all reserves and surplus. Debt consists of bond issues or any other type of long term payables.

The assets of the company can be financed by owner or the loaner. The owner claims increases when the firm raises funds by issuing ordinary shares or by retaining the earnings which belong to the shareholders, the loaners claims increases when the company borrows money from the market using some instrument other than shares. Various means of financing represent the financial structure of the enterprises. Capital structure is a composition of debt and equity. The financing or capital structure decision plays an important role in financial planning and managerial decision making which influences the shareholders return and risk. All the companies will plan their capital structure initially at the time of its promotion / inception stage and subsequently, whenever there is a need for the fund raising. A demand for raising funds generates a new capital structure which involves a critical analysis. This study attempts in finding the determinants of capital structure and the effect of capital structure composition on overall Return on Equity and EPS.

A. Need for the study

The need for this study is to understand the factors affecting the capital structure and find the relation between the capital structure and the firm's performance.

B. Scope of the study

The scope of the study is confined to only one sector (i.e., Information Technology industry) in India. In IT sector, the first five companies only which are on the list of top ten Information Technology industries based on the market capitalization.

C. Objectives of the study

1. The major objective of the study is to examine the pattern of debt-equity mix by few IT companies and the influence of the various factors affecting their capital structure decisions.
2. To identify and analyze the capital structure of selected companies of IT industry in India.
3. To interpret changes in EPS due to components of capital structure.

2. Literature review

1. Divya Aggarwal, Poorna Chandra Padhan (2017), in their study titled, "Impact of Capital Structure on Firm Value: Evidence from Indian Hospitality Industry", Theoretical economics letter, 2017, volume 7, 982-1000: Revealed significance in relationship between firm value with firm quality, leverage, liquidity, size and economic growth. Here, the BSE listed Indian hospitality firms over a time frame of 2001-15 are taken. The variables considered are Altman Z score, leverage, size, profitability, tangibility, growth, liquidity along with GDP and inflation growth.
2. Bhushan Singh, Dr. Mohinder Singh (2016), in their study

with a title, "Impact of Capital Structure on Firm's Profitability: A Study Of Selected Listed Cement Companies In India", Pacific Business Review International, Volume 8, Issue 7, January 2016: Investigated the impact of capital structure on firm's profitability through the selected cement companies in India with a five year financial data, concluded that based on the correlation coefficient b, there is a negative relationship between debt and profitability i.e., companies with higher proportion of debt tend to have low profitability and vice versa.

3. S. Revathy, V. Santhi, in their study titled, "Impact of Capital Structure on Profitability of Manufacturing Companies in India", International Journal of Advanced Engineering and Technology, Issue I, Volume 7, Jan-march 2016, 24-28: Stated that there is a positive relation between capital structure variable and profitability. Increase in debt-equity ratio is inversely proportional to the profits of the manufacturing companies listed in Bombay Stock Exchange in India. Here, we divided the selected manufacturing companies into three categories on two attributes i.e., stages and period. As per first, manufacturing companies are concluded into Pioneering stage, Growth stage and Consolidation stage. Second, those companies are classified into pre and post-merger periods. The attempt is to establish a relationship which impacts on the profitability of manufacturing companies.
4. Merugu Venugopal, M. Ravindar Reddy(2016),in their study titled, "Impact of Capital Structure on Profitability and Shareholders Wealth Maximisation-A Study of Listed Indian Cement Companies", IOSR Journal of Business and Management (IOSR-JBM),Volume 18, ISOR 4, PP 21-27: Stated that their results showing the positive relationship between capital structure(debt equity ratio) and the profitability, market value and shareholders wealth but the relation showing insignificance when analyzed statistically . Investigation on effect of capital structure on firm's performance and shareholder's wealth of all the NSE listed cement companies over a period of eight years are considered. Tools used for this purpose are Descriptive statistics, Correlation analysis and Regression analysis.
5. Nassar. S (2016), in his study titled, "The Impact of Capital Structure on Financial Performance of the Firms: Evidence from Borsa Istanbul", Journal of Business and Finance Affairs, ISSN: 2167-0234, volume 5, issue 2: Stated that he found a negative or inversely proportional significance in between Capital structure and firm performance. The indicators used are return on equity, return on asset and earnings per share as well as debt ratio from the annual reports taken from 136 Industrial companies listed on Istanbul Stock Exchange (ISE) over a period of 8 years (2005-12).

3. Research methodology

A. *Research Design*

The study is conducted basing on 'Descriptive Research Design'. Descriptive research design focuses on the description of the characteristics of the selected phenomenon or population. It mainly focuses on the reasons or the criteria of the research study.

B. *Data Collection*

Secondary data have been used for this study. Secondary data is collected from Journals, Articles, Text books and Company Websites.

C. *Tools for the Study*

Financial Tools: The financial tools used are Equity Ratio, Long term Debt Ratio, Leverage Ratio, Earnings per Share, Return on Equity.

Statistical tools: The types of statistical tools used are:

- Mean
- Standard Deviation
- Correlation Analysis and
- Regression Analysis.

D. *Hypothesis*

- H0: There is no significance effect on profitability due to changes in other variables.
- H1: There is a significance effect on the profitability due to changes in other variables.

E. *Interpretations*

- *2016:* In this year TCS has the highest earnings per share and return on equity when compared to the other companies. Its equity ratio is equal to 1 which indicates good position. Remaining companies are at risk due to the high long term debt ratio.
- *2017:* When compared to the last year this year has the good equity-debt position. Only Tech Mahindra is at risk with high long term debt ratio. The highest earnings per share are in TCS.
- *2018*: In this year the returns are more in TCS s well as HCL Ltd. Long term debt ratio is higher and the leverage are high in Tech Mahindra and TCS respectively. Other companies are t moderate risk and less returns.

4. Limitations of the study

- The study is being restricted to a specific time period i.e., 3 years (2016-18).
- Only the secondary data is considered for this study.
- The study considers only a limited companies of Information Technology (IT).
- The study does not apply to whole IT sector.

5. Data analysis and interpretations

Data Analysis: For the purpose of data analysis the top five companies in the IT industry are considered based on the market capitalisation.

Variables: The following variables were considered:

Table 1
Variables

Capital (Independent Variables)	Equity Ratio(ER) Long Term Debt Ratio (LTDR) Leverage Ratio(LR)
Profitability Ratios (Dependency Variables)	Earnings Per Share(EPS) Return On Equity(ROE)

The five ratios used in the calculations are as follows:

Equity Ratio: The equity ratio can be used to know the assets of the company which are of invested by the owners of the company. It can be calculated with the following formula:

ER=Net Worth/Total Assets

Long Term Debt Ratio: LTDR is helpful to measure the percentage of a company's assets which are backed up by the loans and financial obligations (>1 year). It can be calculated with the following formula.

LTDR=Long Term Debt/Net Assets

Leverage Ratio: LR is a tool used to know the mixed contribution from the equity of the owner and the finance from the outsiders. It can be calculated with the following formula.

LR=Long Term Debt/Net Worth

Earnings Per Share Ratio: EPS is the profit(EAES) of a company which is allocated to each of the shareholders for on each of the outstanding share (common stock) they holds. It can be calculated with the following formula.

EPS=Earnings Available to Equity shareholders/Number of Outstanding Equity Shares

Return On Equity: ROE is the income as a percentage shareholders equity which could be returned. It calculates the profits earned by a company with the shareholders investment. It can be calculated with the following formula.

ROE=Net Income/Shareholders Equity

The three years (2016-18) data of the following five companies are considered in calculation. The data of these five companies are used for analysis.

1. Tata Consultancy Services ltd.
2. Infosys Technology ltd.
3. Wipro Technology ltd.
4. HCL Technology ltd.
5. Tech Mahindra ltd.

Table 2
2016 Ratio table

Companies Name	Equity ratio (%)	Long term debt ratio(%)	Leverage ratio(%)	Earnings per share (Rs.)	Return on equity(%)
TCS	0.9869	0.0111	8.683	109.59	45.13
Infosys	1	0	0	55.26	11.052
Wipro	0.86	1	1.162	33.19	16.597
HCL	0.9986	1.308	1.31	44.61	16.73
Tech Mahindra	1	0.011	0.011	33.27	6.654

Table 3
2017 Ratio table

Companies Name	Equity ratio (%)	Long term debt ratio(%)	Leverage ratio(%)	Earnings per share (Rs.)	Return on equity(%)
TCS	0.9882	0.012	938.0692	111.01	38.53
Infosys	1	0	0	60.16	12.031
Wipro	0.88	1	1.131	33.57	16.787
HCL	0.9988	1.192	1.194	48.17	24.08
Tech Mahindra	1	9.522	9.522	31.28	6.259

Source: https://www.business-standard.com

Table 4
2018 Ratio table

Companies Name	Equity ratio (%)	Long term debt ratio(%)	Leverage ratio(%)	Earnings per share (Rs.)	Return on equity(%)
TCS	0.9884	0.0116	904.4921	124.6	42.09
Infosys	1	0	0	73.97	14.793
Wipro	0.89	1	1.111	17.07	8.535
HCL	0.9988	1.195	1.197	52.88	28.44
Tech Mahindra	0.993	6.932	6.98	40.82	8.167

Source: https://www.business-standard.com

Table 5

Year	Equity ratio (%)	Long term debt ratio(%)	Leverage ratio(%)	Earnings per share (Rs.)	Return on equity(%)
2018	0.9884	0.0116	9.044921	124.6	42.09
2017	0.9882	0.0117	9.380692	111.01	38.53
2016	0.9869	0.0130	8.683757	109.59	45.13

Source: https://www.business-standard.com/company/tcs-5400.html

Interpretation: From the above calculations we can observe that there is an increase in net worth from 2016 to 2017, but again decreased in 2018 and total assets also followed the same pattern due to these changes there is a minute change in equity ratio. LTDR of the company is less than 1 due to the low amount of debt. The LR increased from 2016 to 2017 but somehow maintained the same level in 2018 with a small difference. EPS of the has improved from 2016 to 2018 which shows the growth in the earnings of the company. ROE of the company can be seen as decreased in 2017 but regained a little due to increase in the net income.

Table 6
Infosys technology ltd.

Year	Equity ratio (%)	Long term debt ratio(%)	Leverage ratio(%)	Earnings per share (Rs)	Return on equity(%)
2018	1	0	0	73.97	14.793
2017	1	0	0	60.16	12.031
2016	1	0	0	55.26	11.052

Source: https://www.business-standard.com/company/infosys-2806.html

Interpretation: From the above ratio's we can observe that in this company there is no long term debt and due to which the ER is constant (1), LTDR and LR remained as (0). This shows the increase in the EPS and ROE. It is evident from the above that this company is more tend to use equity than debt.

Table 7
Wipro technology ltd.

Year	Equity ratio (%)	Long term debt ratio (%)	Leverage ratio(%)	Earnings per share (Rs.)	Return on equity (%)
2018	0.89	1	1.111	17.07	8.535
2017	0.88	1	1.131	33.57	16.787
2016	0.86	1	1.162	33.19	16.597

Source: https://www.business-standard.com/company/wipro-614.html

Interpretation: In this case the ER has been increased steadily, LTDR is constant (1) due to equality between long term debt and net worth, due to this equality LR, EPS and ROE decreased gradually.

Table 8
HCL technology ltd.

Year	Equity ratio (%)	Long term debt ratio(%)	Leverage ratio(%)	Earnings per share (Rs.)	Return on equity(%)
2018	0.9988	1.195	1.197	52.88	28.44
2017	0.9988	1.192	1.194	48.17	24.08
2016	0.9986	1.308	1.31	44.61	16.73

Source: https://www.business-standard.com/company/hcl-technologies-5656.html

Interpretation: Here we can observe that there is only a small difference between debt and equity, the ER almost remained constant. LR, LTDR decreased. Due to this EPS and ROE increased. The result is that the small proportion of debt in capital tends to have increase in both EPS and ROE.

Table 9
Tech Mahindra Ltd.

Year	Equity ratio (%)	Long term debt ratio(%)	Leverage ratio(%)	Earnings per share (Rs.)	Return on equity(%)
2018	0.993	6.932	6.98	40.82	8.167
2017	1	9.522	9.522	31.28	6.259
2016	1	0.011	0.011	33.27	6.654

Source: https://www.business-standard.com/company/tech-mahindra

Interpretation: The ER decreased, LTDR, LR has no fixed change i.e., it increased in one year and then decreased. Due to these changes ROE increased but EPS showed the same pattern in increasing and decreasing.

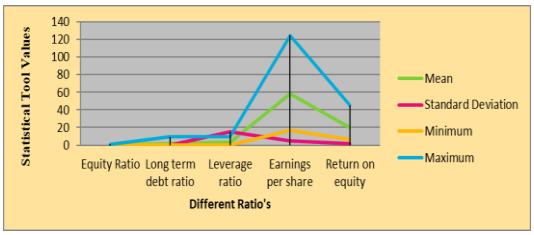

Fig. 1. Statistical analysis of different ratios

Interpretation: The overall calculation of all the companies over a period of five years ratio's are shown in the above graph. From the graph we can say that profitability ratios are showing the good performance with an average value of 57.96(EP) and 19.72(ROE). The LTDR (1.55) showing a consistent average which says that the industry's usage of debt and equity in the capital is balanced as its minimum value and the standard deviation are 0 and 15.07. The IT industry is not completely dependent on the equity or debt. The standard deviation shows the low values for ER and LTDR (i.e., <1), and maximum deviation is in the leverage ratio which indicates the high variation. EPS and ROE are considered to be more varied when compared to ER, but less than LR.

Correlation Matrix:

- ER - Equity Ratio
- LTDR - Long Term Debt Ratio
- LR - Leverage Ratio
- EPS - Earnings Per Share
- ROE - Return on Equity

Table 11
Correlation matrix

Variables	ER	LTDR	LR
EPS	0.391957753	-0.385977474	0.56952104
ROE	0.139568702	-0.415085572	0.525690841

Interpretation: In the above correlation matrix, the independent variables are identified as equity ratio, long term debt ratio and leverage ratio. The dependent variables are earnings per share and return on equity.

From the above matrix we can say that EPS has the positive correlation with ER and LR, but negatively correlated with the LTDR. There is a strong correlation between EPS and LR than with ER and LTDR.ROE also shows the same effect of

Table 10
Descriptive Statistics

Variables	Equity ratio (%)	Long term debt ratio(%)	Leverage ratio(%)	Earnings per share (Rs)	Return on equity(%)
Mean	0.97218	1.54631333	182.303667	57.9633333	19.725
Standard Deviation	0.007087373	0.050905871	15.07015169	4.945794311	1.397279982
Minimum	0.86	0	0	17.07	6.259
Maximum	1	9.522	938.0692	124.6	45.13
Count	15	15	15	15	15

Source: https://www.business-standard.com

correlation with the other variables. There is a positive correlation with ER and LR, but a positive correlation with LTDR. the strong relation vests in between ROE and LR.

Regression:

Hypothesis:

- H0: There is no significance effect on profitability due to changes in other variables.
- H1: There is a significance effect on the profitability due to changes in other variables.

A. Summary output

Table 12
Regression Table - I Summary Output

Regression Statistics	
Multiple R	0.954188968
R Square	0.910476587
Adjusted R Square	0.886061111
Standard Error	11.04325911
Observations	15

6. Suggestions

It can be suggestible that the capital structure components related debt of the firm effects more when compared to other components. The company should include the debt and equity based on the ability to hold, if the company eliminates either the debt or the equity then it will affect the company's Return on Equity and Earnings Per Share. It also can be suggested that the company has to make sure for higher Equity Ratio which helps for more profitability.

7. Conclusion

In the IT industry, the zero debt companies performance is poor when compared to the other companies with debt content. The profitability ratios such as Earnings Per Share (EPS) and Return On Equity (ROE) are more in TCS Ltd when compared to the other companies. It is showing the maximum growth than the remaining companies such as Wipro Ltd, HCL Ltd, Tech Mahindra Ltd, Infosys Ltd. The more effecting/ affecting capital structure component is Long Term Debt Ratio(LTDR) and Leverage Ratio (LR).

References

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