Graphing Capital Structure Analysis of IT Sector With Special Reference to HCL

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Abstract - This study employs two different analytical tools namely, financial ratios and statistical tools. To calculate the growth of the select IT Industry, the compound annual growth rate and trend analysis were used. To find out the capital structure position debt-equity and leverage of select IT Industry and Information Technology industries were analyzed. The Summary statistical co-efficient of variation, correlation, multiple regression analysis and structural equation model were also used appropriately to compare the profitability and the leverage position of the select IT Industry. There were evidences from foreign studies to support Capital Structure theories which have studied various determinants of Capital structure with IT Industries. The Industries range from small scale to very large scale company. The researcher had made an attempt to study the structure of capital in IT Industry in India. The researcher was motivated to carry out a study on these IT industries. By using various capital related terms such as long -term debt, short-term debt, operating cost, operating profit, expenses, dividend payout, net profit to net worth, total debt, capital intensity, firm's asset structure, age of the firm, size of the firm, growth of the firm and firm's risk the current research has been designed. The required financial data have been collected from the time boundary of 2006 – 2007 to 2016 – 2017. The present research work is a rewarding exercise to the scholar and the researcher will be delighted if the suggestions are incorporated to earn good return on equity. The restructuring of capital, where the companies are suffering with sickness will enhance a good and viable financial performance. For academics, trainers and consultants, the present research will help them to look into it with a new insight and analyze the same with various dimensions in IT Industry. The findings of the study certainly provide a framework for understanding the capital structure and financing of Small and medium enterprises, and have significant theoretical and practical implications. Based on the findings suggestions were given to improve the efficiency of determinants of capital structure and its operations by proper mobilization of funds thus highlighting the prominent role of the finance manager. This study aims at finding out the trend and pattern of financing by the Indian IT Industries.
Keywords: Capital Structure, Risk, Return, Performance, BSE, NSE

I. INTRODUCTION

In this study performance evaluation involves the assessment of industries past, present and future financial conditions. The objective of performance evaluation is to identify nature and trend of firm's financial health that could lead to future problems and to determine the strength that the firm might capitalize upon. It is also a process of evaluating relationship between components of financial statement to obtain a better understanding of a firm's financial position and performance. Generally, a company should always maintain the balanced capital structure. If companies raise funds for most of its capital requirements through debt securities, fixed cost will increase and it will prove a burden on the financial position of the company. Companies can raise the rate of dividend temporarily through trading on equity.

II. RESEARCH PROBLEM

The most critical and high risk was found when the leverage shows exactly high. Current study makes an attempt to identify the poor profit earning Industries as well as the highest profit generating industries especially, the IT Industry. A restructuring of capital will be all suggested for poor profit generating Industries and loss making Industry. Based on the above the following problems were identified.

1. The major factors that influences a good capital structure.
2. The amount financial risk faced by IT Industry.
3. Trends and growth of the IT Industry.

III. REVIEW OF LITERATURE

M'ng *et al.,* (2017) investigate the determinants of capital structure of public listed companies on Bursa Malaysia, Singapore Stock Exchange and Thailand Stock Exchange from 2004 to 2013. We also investigate how firm-specific factors such as profitability, firm size, tangibility of assets and depreciation to total assets along with the macroeconomic factor such as inflation influence the capital structure decisions of public listed companies. They found that profitability has a significant negative influence on capital structure for Malaysia and Singapore but insignificant for Thailand. Rinku (2017) examined the various components of capital structure of banking companies. The descriptive statistics of the independent variables has analyzed with ten Indian banking companies for a period of 10 years from 2006-07 to 2015-16. Ayşegül (2016) conducts a comparative test of trade-off theory and pecking order theory using 131 publicly traded Turkish companies' firm-level data between 2008 and 2014. He try

to exploit the differences between the capital structure decisions for various degrees of free float rate and foreign paid in capital, and for those that have various market values.

Petra and Heryán (2015) study the differences between the capital structure developments based on the type of the Czech companies' ownership in the selected NACE industrial branch with financial indicators of 57 building companies with turnover of more than CZK 1.5 billion. This study found that separation of managers from owner's positions. On the top of that, domestic companies are not pushed to distribute the realized profit so much as foreign owners that prefer the return of their means invested into business. Jana and Marta (2015) investigate the relationship between capital structure and profitability of the limited liability companies from an agricultural sector in the Czech Republic over the past six year period from 2008 to 2013. Data was obtained and processed from the database of enterprises of Albertina and was analyzed by using descriptive statistics, i.e. mean, median, variation range, standard deviation, coefficient of variation, skewness, kurtosis, and correlation analysis to find out the association between the variables. Atseye et al., (2014) study adopted two theoretical frameworks: Pecking order and Static Trade-off Theories captured in a panel regression model in Nigerian firms during 1999-2012.

Shrabanti Pal (2014) determinants of capital structure choice of 37 Indian steel companies. Correlation and regression analysis are used to explore the relationship between dependent variable leverage and other independent variables like tangibility, size, non-debt tax shield, growth opportunity, profitability and business risk. It can be said that Indian steel companies with lower level of tangible assets are more subject to information asymmetry problems among the stakeholders, and consequently, more willing to use debt to finance their activities. Zhenting et al., (2014) analyze the financing decisions and capital structure of internet companies and relate observed findings to the common capital structure theories. Julija (2012) study the capital structure and the variables influencing it in The Baltic States and Russia – countries which started their transition from a planned to a market economy at the same time. Analysis of both macroeconomic and microeconomic variables of the period 2002 – 2008 shows that the determinants influencing the choice of capital structure in companies is similar but some significant differences still exist. Irene and Hooi (2011) investigated the cross-sectional variation in leverage among publicly listed Government Linked Companies (GLCs) and non-GLCs (NGLCs) in Malaysia finds that tangible assets and profitability have an inverse relationship with long term debt. Faris (2011) studied that capital structure and market power and capital structure and profitability are related in Jordanian Banks. He found that the size tangibility variables have a positive influence both on capital structure and on the other hand on growth, while risk and ownership variables have a negative influence on capital structure.

IV. OBJECTIVES OF THE STUDY

1. To study the capital structure of HCL Industry.
2. To analyze the debt-equity structure of HCL Industry.
3. To identify the factors determining the capital structure of a company.
4. To identify the association between assets structure and leverage of HCL Industry.
5. To analyze the impact of capital structure and its profitability in HCL Industry.

V. RESEARCH METHODOLOGY

This study aims to examine the determinants of capital structure of HCL Industry Industries listed on the Stock Exchanges of India (BSE and NSE). The different factors that affect the level of capital gearing would be studied. The research study would provide a clear understanding of the impact of firm specific characteristics on the mode of financing of industries.

A. Data Sources

This study analyzes the financial pattern of Indian IT Industry. This comprises for the period of 2007-2008 to 2016-2017. Secondary data which is of time series type was taken to support data analysis.

B. Selection of Sample

The study relies on selection of secondary data related to capital structure of select IT Industry from the sources of Income Statement, Profit and Loss account and Balance sheet. The parameters taken for selection of sample industries under the study are
1. Company having continuous financial data for the last 10 years commencing from 2007-2008 to 2016-2017.
2. Company which are listed in BSE or NSE.

VI. TOOLS USED IN THE STUDY

In this study employs different analytical tools used namely, financial ratios and statistical tools. To calculate the growth of the IT Industry, the compound annual growth rate, and trend analysis were used. To find out the capital structure position debt-equity and leverage of select HCL IT Industry were analyzed. Summary statistical co-efficient of variation, correlation and multiple regression analysis and structural equation model are also used appropriately to compare the profitability and the leverage position of the HCL IT Industry.

VII. VARIABLE SELECTION AND ANALYSIS

The dependent variable LDR = Long-term debt / (Total equity + Total debt). The independent variables include Short term debt ratio (SDR), Age of the firm (AGE), Size of the firm (SIZE), Asset structure (ASST), Growth (GROW), Profitability (PROF) and Firm risk (RISK).
These are defined as:

AGE   =   Number of years in business
SIZE   =   Log of total assets
ASST   =   The ratio of fixed assets to total assets
PROF   =   The ratio of profit before tax to total assets
GROW   =   Growth in sales
RISK   =   The standard deviation of the difference between the firm's profitability in time t and the mean profitability.

These definitions follow those of previous studies (Cassar and Holmes, 2003; Esperanc et al., 2003; Hall et al., 2004; Sogorb-Mira, 2005). All the variables used in this study are based on book value in line with the argument by Myers (1984) that book values are proxies for the value of assets in place.

A. Model Specification

This study employs the Prais-Winston regression model which is an alternative panel specification method and it is useful for estimating linear cross-sectional time series models when the disturbances are assumed to be either heteroscedastic across panels or heteroscedastic and contemporaneously correlated across panels. The general form of the model can be written as
$$Y_t = \alpha + \beta X_{it} + \mu_{it}$$

With the subscript i denoting the cross-sectional dimension and t representing the time-series dimension. The left-hand variable Y_{it} represents the dependent variable in the model, which is the firm's Long term debt ratio. X_{it} contains the set of explanatory variables in the estimation model, α is the constant, and β represents the coefficients. The μ_{it} is a random term and $\mu_{it} = \mu_{it} + V_{it}$ where μ_i is the firm specific effects and V_{it} is a random term. The regression model employed for this study is also in line with what was used by Cassar and Holmes (2003), and Hall et al. (2004) with some modifications for the analysis.

This takes the following form
LDRi, t = βO + β1 SDRi, t+ β2 AGEi, t+ β3 SIZEi, t+ β4 ASTi, t+ β5 PROFi, t + β6 GROWi, t+ β7 RISKi, t

B. Structural Equation Model (SEM)

Structural equation model (SEM) has designed in three different ways. Understanding the way of statistical significance is reported requires understanding the terminology of the model. Within the graphical display of the model there are boxes and arrows. Boxes represent observed data and the arrows represent assumed causation. Within the model a variable that receives a one-way directional influence from some other variable in the system is termed "endogenous", or is dependent When interpreting Structural equation model the values attached to one-way arrows (or directional effects) are regression coefficients, whereas two-way arrows (non directional relationships) are correlation coefficients; regression coefficients and correlations comprise the "parameters" of the model. The regression coefficients and correlations measure the strength of the relationship between the variables.

A regression coefficient of 0.70 or higher indicates a very strong relationship; 0.50 to 0.69 indicates a substantial relationship; 0.30 to 0.49 indicates a moderate relationship; 0.10 to 0.29 indicates a low relationship; 0.01 to 0.09 indicates a negligible relationship; and a value of 0 indicates no relationship.

Besides regression coefficients and correlations, SEM also test the overall fit of the model. The narrative analyses use three measures of model fit to determine the overall quality of fit of the model. Another way of thinking about model fit is to view this as the test of model significance, thus, when the values of significance are met for the tests all relationships within the model are significant, and it is then their relative strengths which decides if there is a relationship or not.

C. Measurement of Variables

1. Long term debt ratio (LDR) – Dependent variable
2. Short term debt ratio (SDR) – Independent variable
3. Age of the firm (AGE) – Independent variable
4. Firm's size (SIZE) – Independent variable
5. Asset structure of the firm (ASST) – Independent variable
6. Profitability of the firm (PROF) – Independent variable
7. Firm's growth (GROW) – Independent variable
8. Firm's risk (RISK) – Independent variable

The following table I shows selected observed and unobserved variables for analysis.

TABLE I MANIFEST AND LATENT VARIABLES

S.No.	Manifest variables	Latent variables
1	LDR = Long term debt ratio	LEVERAGE = Firm's leverage
2	SDR = Short term debt ratio	
3	TD = Total debt	
4	CAPINT = Capital intensity	CAPSD = Capital structure determinants
5	ASST = Firm's asset structure	
6	AGE = Age of the firm	
7	SIZE = Size of the firm	
8	GROWTH = Growth of the firm	
9	RISK = Firm's risk	
10	OCR = Operating cost ratio	PROFIT = Profitability of the firm
11	OPR = Operating profit ratio	
12	EXPR = Expenses ratio	
13	DPR = Dividend payout ratio	
14	NPNW = Net profit to net worth ratio	

D. Hypotheses

Hypothesis - 1: Age of the firm is positively related to long-term debt ratio

Hypothesis - 2: Firm size should be positively related to long-term debt ratio

Hypothesis - 3: Asset structure is positively related to long-term debt ratio

Hypothesis - 4: Profitability is negatively related to long-term debt ratio

Hypothesis - 5: Growth is positively associated with long-term debt ratio

Hypothesis - 6: Risk is negatively related to long-term debt ratio

E. Reliability and Validity of the Data

Secondary data for the study are drawn from audited accounts (i.e., income statement, balance sheet and profit and loss account) of the concerned industries as fairly accurate and reliable. Necessary cross checking would have done while scanning information and data from the secondary sources. All these efforts are made in order to generate validity data for the present study.

The capital structure of HCL IT Industry was tested by employing different variables by the researcher to determine the optimum capital structure. The results are shown in the table II. HCL Technologies Ltd. The capital structure of HCL Technologies Ltd., was analyzed by employing different variables by the researcher to determine the optimum capital structure. The results are shown in the table II.

TABLE II CAPITAL STRUCTURE ANALYSIS OF HCL TECHNOLOGIES LTD.,

Ratios	Range	Minimum	Maximum	Mean	SD	Variance	Skewness	Kurtosis
LDR	.86	.05	.91	.4525	.34376	.118	.192	-1.977
SDR	10.85	1.12	11.98	4.5012	4.05277	16.425	1.358	.448
AGE	9.00	26.00	35.00	30.5000	3.02765	9.167	.000	-1.200
SIZE	.48	3.17	3.65	3.4220	.14078	.020	-.209	.012
ASST	.62	.46	1.08	.8166	.20888	.044	-.420	-1.013
PROF	.23	.23	.46	.2877	.06655	.004	2.311	5.862
GROW	184.46	12.15	196.61	63.5050	60.22392	3626.921	1.203	1.385
RISK	1310.08	372.56	1682.64	965.5700	530.22946	281143.280	.073	-2.020

Source: Computed from Annual Reports of the Company

It is understood from the table II that the capital structure of HCL Technologies Ltd., highlights its long-term debt ratio gained from .05 to .91 with an average of .4525. The standard deviation of the company was .34376 and the variance showed .118. Further, it is noted that the skewness highlighted positively. The short-term debt ratio of HCL Technologies Ltd., ranged from 1.12 to 11.98 with an average of 4.5012. The standard deviation of HCL Technologies Ltd., was with 4.05277 and the variance showed 16.425. Further, it is noted that the skewness highlighted positively. Age of the firm of HCL Technologies Ltd., ranges from 26.00 to 35.00 with an average of 30.5000.

The standard deviation of the company was 3.02765 and the variance showed 9.167. Further, it is noted that the skewness highlighted positively. Firm size ranged from 3.17 to 3.65 with an average of 3.4220. The standard deviation of the company witnessed with .14078 and the variance showed .020. Further, it is noted that the skewness showed negatively. Asset structure ranged from .46 to 1.08 with an average of .8166. The standard deviation of the company was .20888 and the variance showed .044. Further, it is noted that the skewness highlighted negatively. Profitability earned by HCL Technologies Ltd., was its minimum .23 and its maximum .46 with an average of .2877. The standard deviation of the company witnessed with .06655 and the variance showed .004.

Further, it is noted that the skewness highlighted positively. Firm growth performed with its minimum 12.15 and its maximum 196.61 with an average of 63.5050. The standard deviation of the company was 60.22392 and the variance showed 3626.921. Further, it is noted that the skewness highlighted positively. Firm risk ranges between 372.56 and 1682.64 with an average of 965.5700. The standard deviation of the company witnessed with 530.22946 and the variance showed 281143.280. Further, it is noted that the skewness highlighted positively.

Table III exhibits the correlations of capital structure of IT. It is found from the table that there is a significant positive correlation between Y_1 (LDR) and X_2 at 5% level. There exists a significant and close relationship between X_2(AGE) and X_3 and X_6 at 5% level and correlated at X_7 at 1% level. A close observation of the table reveals that X_3(SIZE) and X_5 is negatively correlated at 1% level. It has been found that there is close association between X_4(ASST) and X_6 is negatively correlated at 1% level and correlation between X_4 and X_7 is negatively correlated at 5% level. It has been disclosed that there is close association between X_6 (GROW) and X_7 at 1% level.

TABLE III HCL TECHNOLOGIES LTD., – INTER CORRELATION CO-EFFICIENT MATRIX

	LDR(Y1)	SDR(X1)	AGE(X2)	SIZE(X3)	ASST(X4)	PROF(X5)	GROW(X6)	RISK(X7)
LDR (Y1)	1							
SDR (X1)	-.500	1						
AGE (X2)	.682(*)	.055	1					
SIZE (X3)	.538	.033	.685(*)	1				
ASST (X4)	-.453	.412	-.567	.070	1			
PROF (X5)	-.477	-.273	-.582	-.790(**)	-.260	1		
GROW(X6)	.507	-.043	.749(*)	.071	-.806(**)	-.169	1	
RISK(X7)	.543	.009	.939(**)	.510	-.713(*)	-.389	.812(**)	1

Source: Computed from Annual Reports of the Company
* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

TABLE IV HCL TECHNOLOGIES LTD., MODEL SUMMARY

Multiple R	R square	Adjusted r square	Standard Error	Durbin-Watson
.984	.969	.859	.12893	2.436

TABLE V HCL TECHNOLOGIES LTD., – ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.030	7	.147	8.855	.105
Residual	.033	2	.017		
Total	1.064	9			

TABLE VI HCL TECHNOLOGIES LTD., – REGRESSION CO-EFFICIENT

Variables	Beta Co-efficient	Standard Error	t	Sig.
LDR(Intercept)	1.571	3.872	.406	.724
SDR (X1)	-.112	.039	-2.878	.102
AGE(X2)	.464	.171	2.718	.113
SIZE(X3)	-4.819	2.384	-2.021	.181
ASST(X4)	2.644	2.030	1.303	.322
PROF(X5)	.458	2.832	.162	.886
GROW(X6)	-.005	.004	-1.282	.328
RISK(X7)	.01	.02	-.736	.538

Source: Computed from Annual Reports of the Company

D. Regression Fitted

$Y = 1.571 -.112 X_1 + .464X_2 -4.819X_3 +2.644X_4 +.458 X_5 -.005X_6 -.01X_7$

The analysis of variance of multiple regression models for LDR shows that the overall significance of the model well fitted. The co-efficient of determination R^2 value showed that these variables put together explained the variations of LDR to the extent of 97%.

VIII. RESULTS AND DISCUSSION

1. The findings of the study certainly provide a framework for understanding the capital structure and financing of SMEs, and have significant theoretical and practical implications.
2. The analysis of long term debt ratio of HCL Company highlights from 0.05 to 0.91 with a mean of 0.4525.
3. Short term debt showed higher than the long term debt with an average of 4.50. The skewness was positive. The asset structure showed the poor progress with 0.8166 and skewness highlighted negatively.
4. The profitability earned by HCL showed on average of 0.2877 and the growth of the company witnessed with satisfactory development with an average of 63.5050.
5. It is noted that HCL Company had taken high level of risk at the maximum of 1282.64. The inter correlation

coefficient matrix of HCL Technology proved there is a significant positive correlation between return on equity and age of the firm and growth performance.

From the analysis measured variables with latent variable of successful operation of determining capital structure is having positive relationship and significant at 1 percent and 5 percent level except net profit to net worth ratio. The analysis of the model, from the viewpoint of the antecedent of capital structure of the IT companies, suggests that all the measured variables except net profit to net worth ratio are significantly influenced on capital structure of select IT companies.

The present research work is a rewarding exercise to the scholar and the researcher will be delighted if the suggestions are incorporated to earn good return on equity. The restructuring of capital, where the companies are suffering with sickness will enhance a good and viable financial performance. For academics, trainers and consultants, the present research will help them to look on it with a new insight and analyze the same with various dimensions in IT industries. To access equity capital and to work at structuring deals that minimizes perception of threats to control.

IX. CONCLUSION

In this chapter, evaluating the capital structure analysis of select IT Industries. The capital structure of the Industries have been analyzed using chi-square test, correlation, regression, trend analysis, descriptive analysis, SEM, ANOVA, etc. It has inferred the following findings. The actual values and the trend values of net worth of IT Industries were significantly different. On other hand, the actual values and trend values of sales both in IT industries were closely related**.**

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