An empirical Study– Capital Structure of Indian IT Sector

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ABSTRACT *The study is conducted to explore determinants of capital structure. For this purpose, financial variables viz. Long-term profitability, financial strength, Growth, Size of the firm, Liquidity and Tangibility are studied by using Ratios as a measure. The study is to analyze the extent to which selected financial variables affect the capital structure of IT companies listed with BSE. To study the determinants of capital structure, a sample of Twenty IT sector companies are selected for the period of Ten years ranging from April 1, 2008 to March 31, 2017. Annual reports of the selected companies are used for analysis. For this purpose, panel data analysis is used with Pooled OLS, Fixed effect regression model and cross section random analysis. Results of the study states that financial variables play a significant role in determining capital structure, especially variables like Long term profitability and Tangibility. It has been observed that long term profitability, Tangibility, Growth, solvency is positively correlated with leverage and on the contrary, Size, liquidity and financial strength are negatively correlated with leverage.*

Keywords: *Capital structure, leverage, Financial Variables.*

1. Introduction

Financial decisions are very critical decisions for every organization. Financial managers are often in dilemma for framing a suitable financial structure for the firm. As Capital is required for financing long term business assets like land and building, Debtors, Bills receivables and many more.

The phrase capital structure designates to the percentage of capital (money) at work in a business by type. Capital structure is the mixture of sources of funds utilized by a firm that is, it is a mix of company's long-term debt, specific short-term debt, common equity and preferred equity. Each has its own advantages and disadvantages and important part of prudent corporate stewardship and management is undertaking to find the absolute capital structure in terms of risk / reward payoff for shareholders.

Indian economy is growing at a rapid pace in every sector, but the contribution of IT industry towards the growth of economy is overwhelming. According to Government of India, It is one of the major industries in India and plays an important role in economic development. IT industry led the Indian economy to the economic transformations and also provides a new outlook to the country at global front. The USP of IT services. that they are provide far cheaper services than US and because of this cost effectiveness many global IT set up their centers in India, which lead to generation of Employment in India and that provides boost to the Indian economy. IT sector become backbone for the growth of Indian economy globally. So, to make this sector growing it is important to study the back bone of this industry that is capital structure of the Industry.

Framing a suitable capital structure is always crucial for every organization. Importance of decision is not only because of the need to minimize the cost and maximize the returns but also help the organization to deal with its competitive environment. Optimum capital structure is always a challenging task for the financial managers, as there is no uniformity in any of the theories related to capital structure even after decades of intensive research. So, it is important to study the practical applicability of concept of capital structure in IT Industry. It has been seen that Capital structure of IT industry is different from other sectors. This study is to analyze that why software companies does not use debt capital as a source of finance.

The paper is to examine the BSE listed companies of IT sector in India and to test the range of hypothesis to determine the effect of financial variables on capital structure decisions.

2. Review of Literature

Sathyanarayana, Harish, Kumar (2017) The study examined the Determinants of Capital Structure-Evidences from Indian Stock Market with Special Reference to Capital Goods, FMCG, Infrastructure and IT sector. For this purpose, 15 companies for the period of Ten Years from these sectors are taken as sample. Multi collinearity and linear multiple Regression analysis is used. Also, Serial correlation test, Heteroskedasticity Test, Normality and CUSUM test have been used to assess the strength of the regression model. It has been observed that Earnings, Tangibility and Growth were the major determinants in case of capital goods sector and Earnings, Tangibility, Growth, Size and NDTS were the major factors for the FMCG

sector. Growth, Business Risk and Size for the Infrastructure sectors and Earnings, Business Risk and Size were the major factors for the IT sector.

Shah, Dr.Soni and Chawla (2016) Researchers study the Important Determinants of Capital Structure Decisions of Indian Automobile Industry. The objective of research is to find out the relationship between the capital structure, value of the firm, return on invested capital and various other factors of the firm. For this purpose, Six Listed companies from automobile sector for Five years are taken as a sample. Ratios were calculated and then correlation and Multiple regression analysis was done to evaluate the determinants It was found that there no positive relation among debt to equity ratio and value of the firm.

Akhtar, Bano, Bano Sidra, Zia, Jameel (2016) This study analyze the 'capital structure and its impact on banking sector performance in Pakistan. This paper examined the impact of capital structure on its determinants like Profitability, tangibility and liquidity. For this purpose five banks are taken as sample from 2005-2015. Correlation and Regression pooled analysis is used to examine the data. It has been observed that determinants like Profitability, tangibility, Liquidity, growth rate and Interest rate has positive relationship between capital structures that is debt to equity.

Kumar, Rao, colombage (2017), The purpose of this paper was to study the status of studies on capital structure determinants in the past 40 years. Researchers wanted to determine the research gap in determinants of capital structure. The research includes 167 research papers published from 1972 to 2013 in various reviewed journals. Meta analysis is used to analyse the capital structure and its determinants. It has been seen that most of the researches conducted on large sized firms with the help of regression analysis. Some industries are yet to be explored. Also, research shows the dominance of Pecking order theory in explaining capital structure.

Dutta, Baby, Kalita (2016)

The objective of the study is Analysis of capital structure in Different industries in India. For the analysis 132 companies are chosen from 20 different Industries. Ratio analysis is used and debt equity ratios are considered to important factor for determining capital structure. It has been observed by the researcher that factors like business risk, Tax position, financial flexibility and managerial conservatism/ aggressiveness. It has also been observed that there is inter industry variations in the Debt equity ratio. So,it has been recommended that mangers should consider all the important factors for determining the optimal capital structure according to the industry specifications.

Temimi , Zeitun, Mimouni (2017)

This study investigates that 'How does the tax status of the country impact capital structure - Evidence from the GCC region'. The data consist of 1317 companies which comprises of 400 firms from 12 Thailand, 663 firms from Malaysia, 13 firms from Qatar, 56 firms from Kuwait, 65 from Saudi Arabia, 34 from United Arab Emirates, 15 from Bahrain, and 71 from Oman listed six GCC countries stock exchanges for the period of eleven years. Researchers used two-step System Generalized Method of Moments to estimate the dynamic capital structure models to determine if firms have a target leverage that they converge and estimate the relationship between leverage and the firm-specific, macroeconomic and stock market factors. Results shows that the coefficient for the one-year lagged dependent variable is positive and less than one, which implies that firms have an optimal leverage that they converge to over time.

Mubeen, Nazam, Batool , Riaz (2016)

The study examines the determinants if capital structure of sugar industry in Pakistan. This study
Uses five sugar companies listed with Karachi stock exchange for the period of five years that is 2008-2012 and for used multiple linear regression for analysis. Four determinants were considered important for determining the capital structure that are size, percentage of assets, Tangibility, Net Income. It was found that only size and growth have positive relation with leverage, so capital structure of sugar industry depends on these above mentioned two variables.

Dr. Ramachandran., Madhumathy (2016)

Dr. Ramachandran. K. K., Madhumathy. M conducted research on capital structure and financial performance of Indian textile industry. Study conducted for ten financial years that is 2004 to 2013 and Ten companies are taken for the study having Market capitalization over 100 crores. Percentage analysis and multiple correlation tests are used to analyze the collected data. It has been found that Net profit margin, return on capital employed, return on equity, return on asset and earnings per share are negatively correlated. It has been suggested by the Researcher that Indian textile industry should use more of internal source of financing to meet their long-term investment decision. If the company is being financed by its creditors rather than from its own financial sources it might be a dangerous trend.

Dr.Shanmugam, Tamilselvi (2015)

This paper analyzed the Capital Structure Pattern of Tata Consultancy Services. A study conducted on long-term solvency, assessment of debt-equity, debt to total fund and justification for the use of debt in Tata Consultancy Services through the application of ratio analysis and statistical test has been undertaken. The time period considered for evaluating the study is four years i.e. from 2011 to 2014. It is revealed that the long-term funds had contributed more on an average 77.25 percent of total funds when compared to short term funds (17.57 percent) in Tata Consultancy Services. Long term funds had apportioned nearly two-third of total funds. Shareholders' funds had occupied on an average 75.33 percent major chunk of the total funds when compared to the borrowed funds (1.91 percent).

3. Importance of study

Many researchers conducted researches based the correlations between leverage and accounting variables, but only few researches focus on determining the capital structure of IT sector. So, this research can help to optimize their costs and increase their profits but there is a huge research gap in this area. So, the company should plan its capital structure to maximize the use of funds and to be able to adapt more easily to the varying conditions. It has been seen that Capital structure of IT industry is different from other sectors. This study is to analyze that why software companies does not use debt capital as a source of finance. Moreover, an evaluation is needed to satisfy government shareholders investors that the company is utilizing its financial resources very well.

4. RESEARCH METHODOLOGY

4.1 Research objective

To evaluate the determinants and study the impact of financial variables (Long term profitability, financial strength, Growth, Size of the firm, Liquidity and Tangibility) on capital structure of IT companies listed with BSE.

4.2 RESEARCH QUESTION

To what level Capital structure of IT companies listed with BSE effected by the selected Financial variables that is Long term profitability, financial strength, Growth, Size of the firm, Liquidity and Tangibility.

4.3 HYPOTHESIS

H_0: Capital Structure of IT Companies is affected by financial variables in India.

H_1: Capital Structure of IT Companies is not affected by financial variables in India.

4.4 PERIOD OF STUDY

The study is time specific. Annual reports are used for the selected twenty IT sector companies for this specified period. It covers the period of Ten years ranging from April 1, 2008 to March 31, 2017.

4.5 DATA COLLECTION

In order to analyse financial variables secondary data is utilized through published annual reports listed on Bombay Securities Exchange website and companies' website. CMIE PROWESS database is also used to collect financial information. To supplement Data from annual reports and accounts, other publications like newspaper, monthly journals and magazines etc.is also collected.

4.6 SAMPLE SIZE

A sample of Twenty IT companies listed on Bombay stock exchange is selected. Market capitalization is used for selecting data. Sample will be selected keeping in mind only those companies which remained in list of BSE for at least three years from 2010-11 to 2012-13. This sample includes both public and private companies.

5. Description of Variables

5.1 Dependent Variable

5.1. a Leverage(LEV)

Leverage means use of debt content in the capital structure. Higher will be debt content, higher will be the leverage. Companies pursue debt financing when they are highly liquid. Many researches establish positive relationship between liquidity and financial leverage.

Ahmad Noryati and Rahim Fahmi Abdul (2013), explains the positive relationship between profitability and leverage. On the contrary Sabir and Malik (2012) argued that pecking order theory suggests inverse relationship between profitability and financial leverage. The type of debt that is whether short term debt, long-term debt or total debt is used to decide appropriate measure of leverage. Financial leverage is calculated by debt value divided by debt plus values of equity. Rajan and Zingales (1995) used market value as well as book value as a measure of leverage. Mostly, book value is preferred to overcome the complexities arises from the fluctuations of financial markets. For this research, book value is preferred for measuring

leverage. **Debt Equity ratio** is used as a measure for studying relationship of leverage with the other variables.

Long term debt and Total debt is used to study the determinants of capital structure.

Long term debt leverage(LTD)

Titman and Wessels (1988) and others used long-term debt in their study. This leverage uses the Long-term debts over the total assets. Since short-term debt consists of trade credit, which is under the influence of completely different determinants, the examination of total debt ratio may generate results which are difficult to interpret. (Pathak, 2010).

Total Debt Leverage(TD)

Total Debt Leverage is the debt ratio, which indicates the percentage of debt used to finance company's assets. The use of sum of debt in current liabilities and long-term debt over the total assets is used in leverage (De Jong 2008).

5.2 Independent variable

5.2. a. Long term profitability

Profitability is the earnings earned from assets of business. Myers and Majluf (1984), provide evidences for the usage of internal financing. Profitable firms rely less on external funds because they have capacity to finance their investments internally and they maintain constant debt proportion in their capital structure. Non-profitable firms have to raise debt for financing their assets. Net profit Margin can be used as indicator of Profit. This measure is able to depict that how reasonably company is using its assets. It is assumed that there is negative relation among Profitability and leverage.

5.2. b. Financial strength

Financial strength of a company can be assessing by Profitability, Solvency and Liquidity. Solvency and Liquidity can be used for both long and short-term analysis. Role of financial strength is pivotal in analyzing leverage. Short term financial health can be accessed from working capital that is current assets and current liabilities. Short term financial strength helps the company to achieve the goal of liquidity and which leads to maximize Firm's value. If the company is financially strong than it can raise funds easily because investors can easily invest in financially sound firm. Investors, shareholders, moneylenders are always interested in assessing financial strength of the company. A positive relation between leverage and financial strength is assumed. Financial health can be measured by Total assets turnover Ratio (sales to total assets)

5.2. c. Growth

Growth opportunities are always add value to the firm internally and externally. It has been always seen that High Growth firms always tend to lack financial resources, as retained earnings are not enough for meeting the growth requirements. So, companies need to borrow external funds. According to pecking order theory, those firms which have high growth prospective, should always prefer Debt capital. However, companies are not able to pursue high risk opportunities, because of risk associated with debt capital.. Growth opportunities determine the leverage ratio that firms choose to finance their projects. It has been seen assumed that positive relation between Growth and Leverage. Change in Fixed assets is used as a measure for Growth.

5.2. d. Size:

Many evidences size plays important role in deciding the degree of leverage Rajan & Zingales (1995). Capital structure depends on the size of the firm. Large firms can easily raise debt capital at low interest rates because of high credit scoring and diversified functions and also large firms are very less prone to bankruptcy. (Michaelas 1999) has rightly said that cost of debt can be reduced by increasing the size of the firm. On the contrary, the cost of issuing debt and equity is also related to size of the firm. Mcconnell and Servaes (1995) for issuing equity small firms pay more than the large firms for issuing equity and prefer to issue more long-term debt. So, small firms are more levered than large firms. It is assumed that size of firm is positively related with leverage. For measuring size Log of sales is to be taken as indicator.

5.2. e. Tangibility: Tangibility of assets means existence of assets physically. Debt financing depends on the Tangibility of assets. Creditors can easily provide funds to the Firm with Large amount of fixed asset at lower interest rate because of credit security (pathak 2010). So, such type firms borrow more than the firms having less fixed assets. It can be assumed that Tangibility of assets and leverage are positively related. Tangibility can be measured by fixed asset to total assets ratio. This Ratio will indicate the extent to which fixed assets are financed with respect to total assets.

5.2. f. Solvency

Solvency is defined as the ability of the company to meet its financial obligationsA company is said to be insolvent when a business has negative equity and can enter in to bankruptcy. If a business is generating

enough cash flow for meeting its debt requirements in timely manner. Solvency can be measured from the financial statements. A negative relation is expected among Solvency and leverage. Solvency can be measured by financial charges coverage Ratio, can be calculated by Earnings before Interest and Tax Plus finance charges divided by Interest plus finance charges.

5.2.g. Liquidity

Liquidity is defined as how quickly company can convert its current assets in to cash. According to the pecking order theory, firms rely on internal financing for meeting its financial obligations. Firms which can make their financial obligations can easily raise debt capital at less rate of interest, because of credit security. On the contrary, highly liquid firms issue less debt capital, as they use internal funds for meeting requirements (Antoniou 2008). Ali Hamze Ahi Seyed Mohammad (2013), explained the negative relation among leverage and Liquidity. Liquidity can be measured by Current ratio that is current assets / Current liabilities. Higher the ratio, more the firm is capable for paying if its short-term liabilities.

6. Analysis of Data

Panel data analysis is used in order to meet the objective that is analyzing the impact of financial variables (Long term profitability, Financial strength, Growth, Size, Tangibility, Solvency, Liquidity) on IT company's Capital structure. Financial Variables are taken as an Independent variable and leverage is taken as dependent variable.

6.1 Model Explanation

Panel Least squares are used for analyzing twenty IT sector companies listed with BSE for ten years Panel data is a statistical method, used to analyse cross sectional and longitudinal panel data. For this there are seven explanatory variables are to be studied with the leverage.

With the help of panel data, a given sample of individuals can be studied over time, and thus multiple observations on each individual can be drawn in the sample. With the help of panel data helps in increasing the degree of freedom by providing large number of data points, which helps in reducing collinearity among variables and this improves efficiency of estimates.

Panel estimation can be done in three ways

Pooled ordinary Least Square Model (OLS)
Fixed Effect model
Random Effect model

Pooled Ordinary least square Model is also known as Constant coefficient model. This method does not consider Individual firm effect on leverage. On the other side fixed effect model is more efficient than Pooled OLS. Fixed effect model is used as a control for omitted variable that differ among firms but remain constant over time, while random effect model is based on the assumption that the individual specific effects are uncorrelated with the independent variables. Using only OLS model, does not consider the heterogeneity existed among different sample. After introducing dummy variables through Random effect model, effectiveness can be estimated of both the models. This will also reduce the chances of biasness and increase the reliability of the test results.

Table 1: Criterion used for analysis of Financial variables.

Dependent Variable	Criterion
Leverage	Debt –Equity Ratio
Independent Accounting Variable	
Long term Profitability	Net Profit Margin
Financial strength	Asset Turnover Ratio
Growth	Change in Fixed Assets
Size	Log of Sales
Tangibility	Fixed Assets to Total Assets
Solvency	Financial Charges Coverage Ratio
Liquidity	Current Ratio

6.2 Ordinary Least Square Model

Table 2: Pooled Ordinary Least squares

Variables	Coefficient	Std.error	t-stats	Probability
Long term Profitability	0.002289	0.001496	1.530159	0.1281
Financial strength	-0.000104	0.000822	-0.126650	0.8994
Growth	5.63E-05	7.59E-05	0.741352	0.4597

Size	-0.048891	0.033002	-1.481473	0.1406
Tangibility	0.933536	0.445498	2.095489	0.0379
Solvency	-5.84E-05	4.66E-05	-1.254277	0.2117
Liquidity	-0.012261	0.008787	-1.395290	0.1650

Pooled Ordinary Least Squares Regression value (R2) 9.17% and F-value 4.64%.

Pooled ordinary Least Squares is a method for estimating the unknown parameters in a linear Regression model. Pooled OLS is useful to apply redundant fixed effect test, but it does not make difference between period and cross section analysis.

For analysis 154 observations are pooled by the model. Values of R2 9.17%, shows that dependent variable leverage is effected by independent variables by 9.17%. Disparity in leverage caused by these variables only by 9.17% and 90.83% variation in leverage caused by other factors. To check the significance of Independent financial variables, F-value plays a significant role. F-value that is 4.64% (0.04), shows financial variables plays significant role in deciding the capital structure of the firm. To check the significance of each variable separately, probability values and t-statistics plays an important role. Table 1 shows that the variable. Tangibility has the probability value of 0.03 which is less than 0.05, as far as t values are considered, then Tangibility variable have the highest t-value with 2.09. This shows that out of all the seven variables Long Term Profitability, Financial strength, Growth, Size Tangibility, Solvency, Liquidity,Variable Tangibility plays a significant influence on leverage. Probability values of other variables show that they do not have significant influence on Leverage. Table 1 shows that the variable tangibility has significant impact on leverage in comparison to other variables, while it also shows that variable Long-term profitability and growth are positively related with leverage but does not bear significant influence and other variables like Financial strength, size, liquidity, solvency does not have any positive relation with leverage.

The major problem with this method is that this method does not consider heterogeneity, which exists among these companies. These estimates from this method are biased and inconsistent because of time variant error term and correlation of observed variables with the unobserved cross sectional.

In order to overcome the disadvantages of Pooled OLS method, we use Panel regression with period method.

6.3 Fixed Effect Model

Table 3: Panel with Period effect

Variables	Coefficient	Std. error	t-stats	Probability
Long term Profitability	0.001889	0.001550	1.218334	0.2252
Financial strength	-0.000172	0.000839	-0.205258	0.8377
Growth	5.72E-05	0.000156	0.367836	0.7136
Size	-0.041374	0.035575	-1.163022	0.2468
Tangibility	0.865271	0.468797	1.845725	0.0671
Solvency	-5.55E-05	4.78E-05	-1.162234	0.2472
Liquidity	-0.011530	0.009064	-1.272053	0.2055

Fixed effect Regression value (R^2) 14.12% and F-value 14.62%.

This method allows for heterogeneity or individuality among all the sample companies by allowing having its own intercept value, which means that this method is time variant. This method provides consistent and unbiased results s compared to Pooled OLS method, because of existence of classical error term.

After considering time effect, there are 154 panel observations used. It has been seen that financial variables do not play any significant role in deriving capital structure. From the F-value that is 14.62%, Capital structure is effected by Financial variables by 14.62%. Values of R^2 14.12%, shows that dependent variable leverage is effected by independent variables by 14.12%. Disparity in leverage caused by these variables only by 14.12% and 85.88% variation in leverage caused by other factors. To check the significance of independent variables,probability values are useful for analyzing the significance of the variables, to be significant probability value must be 0 or less than 0.05.All the independent variables have higher probability values, only variable tangibility shows the probability value of 0.06,analysis shows that independent variables are not significant to be good regression model, only Tangibility is the variable which shows that it is considerable to the leverage and t-values also shows that the independent variables are not

significant for framing capital structure. Overall analysis shows negative relation with the leverage. which means that companies do not consider the time effect on capital structure, once the capital structure is formed it will remain the same over the years and also independent variables does not have any significant impact on leverage other than variable tangibility.

But there are some disadvantages with the fixed effect model. Fixed effect model does not use between cross sectional variations, only consider within cross sectional variations for analysis by adding dummy variables. For between cross-sectional variations, Random Regression model is used.

6.4 Random Regression model

Table 4: Panel with Cross Section effect

Variables	Coefficient	Std.error	t-stats	Probability
Long term Profitability	0.011267	0.001578	7.139135	0.0000
Financial strength	-0.003439	0.003213	-1.070351	0.2865
Growth	1.33E-05	6.66E-05	0.199234	0.8424
Size	-0.012151	0.118141	-0.102849	0.9182
Tangibility	1.444960	0.832774	1.735118	0.0851
Solvency	4.71E-07	5.77E-05	0.008154	0.9935
Liquidity	-0.004249	0.007635	-0.556517	0.5788

Random effect model Regression value (R^2)49.04 % and F-value 0.00%.

Panel with cross section is used to overcome the drawbacks of pooled OLS and Fixed effect regression model. Random effect regression model provides more consistent results then the other two models. Value of R^2 49.04 %, is highest among all the regression models. Cross section Regression model shows variability in leverage is caused by Independent financial variable is 49.04% which means leverage is effected by 49.04% and 50.96% variability is caused by other factors. F-values 0.00%, shows that selected Independent variables are significant for framing capital structure. Probability values of the selected financial ratios shows that variable long-term profitability is an important variable for determining leverage as it shows the value of 0.00 and also variable tangibility shows 0.08 the considerable importance for determining leverage. All other variables solvencies, liquidity, Financial strength, Growth, Size do not play any significant role in determining leverage. Table 4, shows that coefficients of independent variables shows that Four variables viz. Long-term Profitability, Tangibility, Solvency and Growth positive relation with the leverage. Long term profitability, Tangibility and Growth also shows the significance of these three variables with the help of t-values.

Overall analysis of the cross-section regression model is best fitted model among all three models and states that financial variables do have impact on leverage, Which means that different companies follow different strategies for forming their capital structure irrespective of the fact that they belong to the same industry, but once the capital structure is formed that remains same over the years.

7. Analysis of Results

Independent variables are analyzed with the help of Regression model.

7.1 Long term Profitability

A coefficient in the regression model reflects the direction of relationship among dependent and independent variable. From the coefficients it has been found that there is positive relationship between profitability and leverage. These findings are contradicted with the hypothesis, in which it has been predicted that there is negative relationship among Long term profitability and Leverage. There are some empirical evidences which states that short term debt and profitability (Abor 2005), on the basis that short-term debt is less costly and helps in yielding higher returns and also profitable firms can use their credit worthiness for securing debts at lower cost. Cross section regression model shows the probability value 0.00%, which states that long term profitability is the significant variable for determining the capital structure of the firm.

7.2 Financial Strength

It has been assumed that Financial strength is positively related with leverage, but analyses provide contradictory results. The coefficient of variable Financial strength shows the negative relation with the leverage. Also, Probability value that is 28.65%, shows that financial strength is not an important variable in determining the capital structure of company. On the basis of analysis, it has been seen that there is negative

relation between financial strength and leverage, which stated that if a company is financially strong it rely less on debt and finance its investments from the internal financing only.

7.3 Growth

Probability values that is 84.24%, Predictor variable growth shows that this is not a significant variable in determining company's capital structure. Although coefficient shows that it has positive relationship with the leverage. It has been always seen that High Growth firms always tend to lack financial resources, as retained earnings are not enough for meeting the growth requirements. So, companies need to borrow external funds.

7.4 Size

Size is negatively related with the leverage as per the regression analysis and this is conflicting with the assumption. Probability values with 91.82% states that size is not a significant variable for determining the capital structure. This means size of the firm does not determine the proportion of debt in capital structure. There are empirical evidences which supports negative relationship between firm's size and leverage (Rajan and Zingales 1995), that there is argued that there was less asymmetrical information about the larger firms. This reduced the chances of undervaluation of the new equity issue and thus encouraged the large firms to use equity financing. Large firms have lower debt as these firms are more closely observed by analysts and should therefore be more capable of issuing information more sensitive equity.

7.5 Tangibility

It has been assumed that there is positive relation between leverage and Tangibility. Coefficients from Regression model for the independent variable tangibility shows that there is positive relation leverage. Probability values with 8.51% shows that variable tangibility is a statistically significant variable in comparison to other selected predictor variable. This means companies can raise debt proportion in capital structure with the help of tangible assets and creditors can also easily lend money. These findings are consistent with the trade-off theory which predicts a positive relation between leverage and tangibility.

7.6 Solvency

Financial charges coverage ratio is used as measure for analyzing variable solvency. It has been assumed that solvency and leverage have negative relation, but coefficient shows the positive relation with the solvency and leverage. Probability values 99.35% shows that solvency is not statistical significant variable for determining capital structure. This results of the analysis shows that solvent firms can easily avail the debt because of credit security to the lenders. A solvent company has a positive net worth and a manageable debt load, too much debt is also dangerous for the firm as it can lead the solvent firm towards bankruptcy. Only that much debt proportion is used in the capital structure, where rate of return is higher than rate of interest.

7.7 Liquidity

The correlation coefficient shows the negative relation between independent variable liquidity and dependent variable leverage. Probability values 57.88% and t-values of -55.65% also shows that the variable is not statistically significant. The analysis of the results shows highly liquid firms reduces the cost of equity and therefore they are equity financed. Pecking order theory also states that profitable firms rely on Internal financing in the form of retained earnings and debt is issued to spread the risk of a firm, helps to avoid the floatation costs and to take the tax benefits. But on the other side, high usage of debt can increase the chances of liquidation because of fixed charges associated with the debt.

8. Conclusion

The study is conducted to explore determinants of capital structure. For this purpose financial variables viz. Long term profitability, financial strength, Growth, Size of the firm, Liquidity and Tangibility are studied by using Ratios as a measure. The study is to analyse the extent to which selected financial variables affect the capital structure of IT companies listed with BSE. To study the determinants of capital structure, a sample of Twenty IT sector companies are selected for the period of Ten years ranging from April 1, 2008 to March 31, 2017. Annual reports of the selected companies are used for analysis. To study the determinants relationship of dependent and Independent variables is studied by using panel data analysis is used with pooled OLS, Time period effect and cross section analysis. Ratios are used as a parameter for analyzing the dependent and Independent variable (Table 1). To overcome the disadvantages of Pooled OLS regression model and Fixed effect regression model, results of cross section analysis are considered. Cross section or random effect Regression model provides more consistent and less biased results.

From the cross-section analysis, it has been seen that variable long term profitability is the most significant variable for determining the amount of leverage and also shows the positive correlation with the dependent

variable. After long term profitability variable Tangibility is also significant variable for determining capital structure. It has been observed that long term profitability, Tangibility, Growth, solvency are positively correlated with leverage, which means that as profitable, growth oriented, Solvent, tangible firms can use more proportion of debt and on the contrary, Size, liquidity and financial strength are negatively correlated with leverage Which means Sizeable, liquidity, Good Financial strength firms use less proportion of debt. Overall analysis states that Financial variables plays significant role in determining capital structure, specially variables like Long term profitability and Tangibility. It has been also observed that there is no common method to be followed by companies for framing their capital structure. Different companies use different strategies for formulating capital structure without considering the fact that they belong to same industry but it may also interesting to know that once the capital structure is framed, companies are accommodating with the structure for over the years without considering time effect or sales effect over the period.

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