Determinants of Capital Structure – A Study of Oil Industry in India

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ABSTRACT

The Study aims to analyze the to what extent accounting variables that is financial strength, long term profitability, Tangibility of assets, Business risk and solvency effect capital structure of oil companies listed on National Stock Exchange in India. For this leverage is taken as a dependent variable and all other accounting variables are taken as an independent variable. Using Panel Data Analysis on ten companies from April 1, 2006 to March 31, 2015. Annual reports for the selected companies for this specific period would be used. The result shows that accounting variable like financial strength is positively related to leverage and other variables are negatively related to the dependent variable. It has also been found that all the explanatory or accounting variables are important determinant of capital structure. Also that companies use different strategies for forming their capital structure irrespective of the fact that they belong to the same industry. Once the capital structure is formed there is no significant changes in capital structure over the years are found.

Keywords---- Capital structure, leverage, Financial Strength, Profitability, Tangibility, Business Risk, Solvency

I. INTRODUCTION

The Indian Economy is in the process of rapid development in every sector. The importance of Oil Industry in directing the activities of economic system is indeed overwhelming. Have formed a keypad of the global economy for the last decade, since petroleum Crude oil has become our main fuel source. As in driving economy oil plays important role likewise raising of capital from different sources and their use in different assets by a company is made on the basis of certain principles that provide a system of capital, so that maximum rate of return can be earned by minimum cost. This sort of system is known Capital Structure. An appropriate capital structure is a critical decision for any business organization. The decision is important not only because of the need to maximize returns to various organizational constituencies, but also because of the impact such a decision has on an organization’s ability to deal with its competitive environment. Consequently it is being increasingly realized that 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. Capital structure decisions have been the most significant decisions to be taken by the finance experts in a corporate sector organization, since it carry a crucial impact on the overall cost of capital in terms of weighted average and the resultant market value of the shares. There have been various schools of thoughts on the relevance of capital structure to a firm’s performance. However, there is still no unifying theory of capital structure even after decades of serious research, which leaves the topic open for further research. The choice of capital structure for firms is one of the most fundamental premises of the financial framework of a corporate entity. The method by which public corporations finance their assets sets up their ownership structure and influence whether their corporate governance is of high standard. Also, there are various theories of capital structure with the different viewpoints. so, practical relevance of the theories need to be studied.

This paper tends to examine oil companies in India listed with National Stock Exchange for their capital structure and test a range of hypotheses to determine the factors which affect the capital structure decisions. It has been increasingly realized that there is strong correlations between leverage and tangibility of assets, growth, firm size, business risk, liquidity, and profitability as suggested by many empirical studies.

II. LITERATURE REVIEW

In order to frame hypotheses and learn about the research progress in the related field, a brief review of empirical studies has been made and presented here. The
review of literature has been presented in chronological order.

Amihud and Lev (1981) suggested that managers have incentives to pursue strategies that reduce their employment risk. This conflict can be solved by increasing the use of debt financing since bondholders will take control of the firm in case of default as they are powered to do so by the debt indentures. Stulz (1990) argued that to reduce the cost of underinvestment and overinvestment, the amount of free cash flow should be reduced to management by increasing debt financing. They claimed that when shareholders cannot observe either the investing decisions of management or the cash flow position in the firm, they will use debt financing. Managers, to maintain credibility, will over-invest if it has extra cash and under-invest if it has limited cash. Harris and Reviv (1990) gave one more reason of using debt in capital structure. They say that management will hide information from shareholders about the liquidation of the firm even if the liquidation will be in the best interest of shareholders because managers want the perpetuation of their service.

Das Sumitra and Roy Malabika (2002) found that though differences is firm size contributes to the existing variation in financial leverage ratio across industry-classes to some extent, it is the nature of the industry itself or more precisely the differences in the fund requirement of industry groups based on the technology used, which is a potential source of the existing variation.

Goyal K Vidhan, Frank Z. Murray (2003) observed that the most reliable factors are median industry leverage (+ effect on leverage), bankruptcy risk as measured by Altman’s Z-Score (- effect on leverage), firm size as measured by the log of sales (+), dividend-paying (-), intangibles (+), market-to-book ratio (-), and collateral (+). Somewhat less reliable effects are the variance of own stock returns (-), net operating loss carry forwards (-), financially constrained (-), profitability (-), change in total corporate assets (+), the top corporate income tax rate (+), and the Treasury bill rate (+). Using Markov Chain Monte Carlo multiple imputation to correct for missing-data-bias we find that the effect of profits and net operating loss carry forwards are not robust.

Mukherjee Sulagna, Mahakud Jitendra (2010) in their study resulted that Firm-specific variables like size, tangibility, profitability and market-to-book ratio were the most important variables which determine the target capital structure across the book and market leverage and the factors like size of the company, growth opportunity and the distance between the target and observed leverage determine the speed of adjustment to target leverage for the Indian manufacturing companies.

Panda jagannath, panigrahi Ashok (2010) made an empirical study and found out that financing with internal funds, as suggested by pecking-order theory has emerged as a major feature of corporate capital structure. Dare Funso David and Sola Olorunfemi (2010) looked at the impact of capital structure on corporate performance in the Nigerian Petroleum Industry. They found out that there was positive relationship between earnings per share and leverage ratio on one hand and positive relationship between dividend per share and leverage ratio on the other hand. Mishra sekar Chandra (2011) suggested that the capital structure (Total Borrowing to Total Assets) of the profit making PSUs is affected by Asset Structure (Net Fixed Assets to Total Assets, NFATA), Profitability (Return on Assets, ROA) and Tax. Unlike suggestion of pecking order hypothesis, growth (defined as growth in total assets) is positively related to leverage.

Ali Atif Syed, Dr. Zia Shahid A & Razi Amir (2012) showed that there is a significant and positive impact of capital structure on the profitability of the petroleum sector; although this study has potential for replication in other industries like cement, textile and pharmaceutical. In overall analysis capital structure has the significant analysis but the individual analysis of every company has not significant because every company has their own capital structure. Overall Profitability depend on the capital structure. Mahvish Sabir, (2012) indicated that profitability is the only variable that showed negative relationship against the dependent variable leverage, whereas the other three variables, liquidity, size and tangibility have positive relationship with leverage. The study concludes that capital structure decisions in listed oil and gas sector companies are mostly determined by the factors studies. The study substantiates the findings of most of the researches conducted on capital structure, concluding that there is an optimal capital structure that is affected by a variety of internal and external factors.

Mr. Ram chander Das and prof. Nikhil Bhusan Roy (2013) examined the Capital Structure of the selected companies of PII. They found that all the selected companies of PII are running with low debt fund. HOECL largely employing shareholders funds in their assets and EOL is on high degree financial risk. Dr. Garima Dalal (2013) supported the view that increase in leverage decreases the cost of capital because debt is a cheaper source than equity. But the results are not statistically significant. This is because this relationship is affected by a number of factors, both quantitative and qualitative, whose effect on this relationship could not be isolated. Dr. P.S.Ravindra* Ch. Trinadha Rao* (2014) proposed to analyse the financial and capital structure in oil and gas industry with specific reference to ONGC Videsh Limited(ONGCVL) concluded from the fore given analysis that the debt dependence was less in ONGCVL when compared with 2002-03 to sustain a growth and maintain profitability trend.

Thus, briefly it can be observed that many empirical studies on capital structure decisions, and impact of capital structure on the profitability have been made on regular basis. Specifically, in petroleum sector, the number of studies in India have been few. However, the results
III. SIGNIFICANCE OF STUDY

It has been realized there are less number of researchers on the capital structure of oil industry which can help to optimize their costs and increase their profits but there is a huge research gap in this area. This will help management, shareholders, moneylenders, employees, government and citizens of the country who are also interested in knowing the affairs of the Company. Moreover, a critical appraisal/evaluation is needed to satisfy government shareholders investors that the company is utilizing its financial resources very well.

IV. RESEARCH OBJECTIVE

To examine determinants and the effect of accounting variables (financial strength, long term profitability, Tangibility of assets, Business risk and solvency) on capital structure of oil companies listed on National Stock Exchange.

4.1 RESEARCH QUESTION

To what extent accounting variables like financial strength, long term profitability, Tangibility of assets, Business risk and solvency affect capital structure of oil companies?

4.2 HYPOTHESIS

H0: Accounting Variables have effect on capital Structure decision of Oil Companies in India.

H1: Accounting Variables have no effect on capital Structure decision of Oil Companies in India.

V. RESEARCH METHODOLOGY

Research methodology followed for the current research has been presented as below.

5.1 PERIOD OF STUDY

The present study has been time bound for its scope. It covers the period of Ten years ranging from April 1, 2006 to March 31, 2015. Annual reports for the selected companies for this specific period have been used.

5.2 DATA COLLECTION

This study is secondary data based research, coming up with conclusions which are capable of being verified by observation or experiment. It will utilize secondary data through published annual reports listed on National Securities Exchange website and companies’ website. CMIE PROWESS database will be used to collect financial information. To supplement the data so collected from annual reports and accounts, other publications like newspaper, monthly journals and magazines etc. will also be used.

5.3 SAMPLE SIZE

To begin with the study, a sample of ten oil companies listed on national stock exchange has been selected. Market capitalization was selected as the basis for this selection. Sample was selected keeping in mind only those companies which remained in list of NSE for at least three years from 2009-10 to 2011-12. This sample includes both public and private sector companies.

VI. IMPACT OF VARIABLES

The impact of selected variables has been studied and analyzed with the help of pooled regression. Besides, Panel Regression has also been used to further examine the impact of period and cross sections.

6.1 Dependent Variable: Leverage (LEV)

As per the studies a measure of a company's financial leverage, calculated by dividing Value of debt by value of debt plus values of Equity. It indicates what proportion of equity and debt the company is using to finance its assets. But several research studies have used both market and book value based measures of leverage (Titman and Wessels 1988, Rajan and Zingales 1995). For this study we use book value measure of leverage. Book leverage is preferred because financial markets fluctuate a great deal and managers are said to believe that market leverage numbers are capricious as a guide to corporate financial policy (Frank & Goyal 2003, Myers 1977). The main benefit of leverage is the cash savings generated because of the debt-tax shield. This tax shield benefits are not changed by market value of the debt once it is issued (Banerjee, S. et al 2000). In order to decide appropriate measure of leverage it is important to consider that which type of debt is to be taken whether short term debt, long-term debt or total debt is used. For this study two definitions are used

1) Total Debt Leverage (TD): This leverage definition uses a sum of debt in current liabilities and long term debt over the total assets (De Jong et al 2008).

2) Long Term Debt Leverage (LTD): This leverage characterization utilizes just the Long term debts over the total assets. Titman and Wessels (1988) and others used long-term debt in their determinants study. 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)

6.2 Independent Variables

A list of various variables which have been selected to act as independent variables have been provided as below.

6.2.1 Financial Strength

The variable financial strength plays a significant role in analyzing financial leverage. As The performance of a business enterprise is based on the number of factors, one of the main factors is firm financial strength FS and it directly affects the firms’ growth ability. Business
financial strength is of vital concern to business owners, corporate managers, investors and lenders. The assessment of firm’s FS is very useful to the interested parties who are seeking firms’ growth. There are two types of FS, which the firm should achieve in the short term and long term. Many researchers emphasis on the fact that short-term FS has a great effect on a Firm’s profitability, liquidity and its structural health. This can be reached by managing firm’s CA and CL or managing a firm’s working capital. It has been explained that the firms’ working capital comprises permanent working capital and variable working capital and if a firm acquired short-term strength it may achieve three goals such as adequate liquidity; minimization of risk and contribution to maximizing the firm’s value. It has been assumed that there is positive relation between Leverage and Financial strength. The firm which is financially strong and stability depends on the internal generation of income but also the creditors can easily lend funds to the firm which is financially strong, because of security of their interest payments. Moreover if a company had good sales turnover than it can easily raise finances from the market. Measure of Financial Strength can be based on Sales to total assets. (TOTAL ASSETS TURNOVER RATIO)

6.2.2 Long Term profitability

It has been observed in earlier studies that percentage of leverage depends on the firms profitability. As per the pecking order Theory firms tend to use internally generated funds first and then resort to external financing. This implies that profitable firms will have less amount of leverage (Myers and Majluf 1984). Which means that profitable firms might be able to finance their growth internally by using retained earnings while maintaining a constant debt-equity ratio whereas, less profitable firms have no such choice and are forced to go for debt financing? So, It is assumed that there is negative relation between Leverage. This independent variable profitability is calculated using the financial ratio. Return of total assets (ROTA). It is calculated by EBIT or operating income before depreciation to total assets divided by Net assets. The ratio is used as an indicator of how effectively a company is using its assets to generate earnings.

6.2.3 Tangibility of assets

Property asset intensity (TANG) measures the tangibility of assets owned by the respective company. Myers and Majluf (1984) argued that firms with more collateral value in their assets tend to issue more debts to take the advantage of low cost. Having the incentive of getting debt at lower interest rate, a firm with higher percentage of fixed asset is expected to borrow more as compared to a firm whose cost of borrowing is higher because of having less fixed assets. Also there is low bankruptcy costs because of lower risk to lender, pathak (2010) so, it is expected that there is positive relation between leverage and tangibility of assets.

This variable tangibility is measured by the financial ratio, fixed asset to total asset ratio. A measure of the extent to which fixed assets are financed with respect to total assets. A higher return indicates that the fixed assets are used efficiently with respect to total assets.

6.2.4 Business risk

According to the agency theories bankruptcy costs is associated with Business Risk. Higher Risk leads to higher probability of bankruptcy which leads to financial distress and for this firms will have to pay risk premiums to fund providers. So, it has been suggested that as business risk increases, the debt level in capital structure of the enterprises should decrease. There is a negative relation between Business Risk and Leverage. This variable Business Risk is measured by Earnings before depreciation. (OPERATING PROFIT)

6.2.5 Solvency

Solvency is defined as having enough value in the form of assets in your business to cover all of the liabilities of the business. Based on the accounting equation that assets = liabilities + equity, this definition means that a business has positive equity. When a businesses’ equity becomes negative it is said to be insolvent. Bankruptcy is just around the corner for an insolvent business if it does not generate enough cash flow income to meet its debt requirements in a timely manner. The measurement of solvency can be done on the basis of relationship of different variables of balance sheets.

One would expect leverage to be negatively correlated with these ratios. In other words, a higher current or coverage ratio should mean lower leverage for the firm. Financial Charges Coverage Ratio: Earnings Before Interest and Tax plus finance charges / interest plus finance charges.(FINANCIAL CHARGES COVERAGE RATIO). It is a ratio that indicates a firm’s ability to satisfy financing expenses, such as interest and leases.

6.3 DATA ANALYSIS

Going by objective, In order to examine the effect of accounting variables (financial strength, long term profitability, Tangibility of assets, Business risk and solvency) on capital structure of oil companies, Panel data will be used. In this case Leverage as the dependent variable while the selected accounting variables will be independent variables.

6.3.1 Model Explanation

Panel data analysis provides longitudinal analysis which means with the help of Panel data sample of independent and dependent variables can be studied over time and multiple observations can be drawn for each variable. There are three Panel estimation models i.e. Pooled Ordinary Least squares regression model, fixed effect or Time period effect model and random effect or cross section effect model.

Using only one model can lead to biased and inefficient interpretations which can falsify the sample observations. Moreover it has been found by the
Researchers that using ordinary least square does not consider the heterogeneity which exists among different sample, which means that it has been assumed that coefficients are the same for all the individuals existed in sample. By using Time period effect model heterogeneity among the sample can be intercepted and by applying random effect model one can identify the effectiveness of both the models that is OLS model or Fixed effect Model by using Hausman test with the help of dummy variables. So, Data has been analyzed by three ways to reduce the chances of biasness and to increase the reliability.

Panel Least Squares method is used for ten companies of oil and petroleum sector. There are six variables which are considered to be important for the study of capital structure. Leverage is taken as a dependent variable for which debt equity ratio is taken as parameter and Strength, Profitability, tangibility, Risk, solvency are taken as an independent variable.

The regression equations are shown below:

\[ \text{LEV} (TD)_{i,t} = \beta_0 + \beta_1 \text{STRENGTH}_{i,t} + \beta_2 \text{PROFIT}_{i,t} + \beta_3 \text{TANG}_{i,t} + \beta_4 \text{BR}_{i,t} + \beta_5 \text{SOL}_{i,t} + \varepsilon_{i,t} \]  

(1) 

\[ \text{LEV} (LTD)_{i,t} = \beta_0 + \beta_1 \text{STRENGTH}_{i,t} + \beta_2 \text{PROFIT}_{i,t} + \beta_3 \text{TANG}_{i,t} + \beta_4 \text{BR}_{i,t} + \beta_5 \text{SOL}_{i,t} + \varepsilon_{i,t} \]  

(2) 

Where, 

\[ \text{LEV(TD)} \] is leverage total debt, \( \text{LEV(LTD)} \) is leverage long term debt, \( i \) is 1, 2, ..., 10 companies, \( i \) is time period, \( \beta_0 \) is intercept of the model, \( \beta_1, \beta_2, \beta_3, \beta_4, \beta_5 \) are the coefficients of the explanatory variables and \( \varepsilon \) is the error term.

6.3.2 Pooled OLS

Firstly Pooled OLS Regression model is used in which cross section and time series is ignored.

<table>
<thead>
<tr>
<th>Variables (Sales to Total assets)</th>
<th>coefficient</th>
<th>Std error</th>
<th>t-stat</th>
<th>Prob.</th>
<th>R²</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength</td>
<td>0.37</td>
<td>0.14</td>
<td>2.72</td>
<td>0.01</td>
<td>0.07</td>
<td>0.01</td>
</tr>
<tr>
<td>Profitability (Return on Total assets)</td>
<td>0.00</td>
<td>0.00</td>
<td>-1.83</td>
<td>0.07</td>
<td>0.03</td>
<td>0.07</td>
</tr>
<tr>
<td>Tangibility (F.A to T.A)</td>
<td>-0.02</td>
<td>0.21</td>
<td>-1.01</td>
<td>0.21</td>
<td>0.92</td>
<td>0.92</td>
</tr>
<tr>
<td>Risk (Earnings for Dep.)</td>
<td>0.00</td>
<td>0.00</td>
<td>-1.80</td>
<td>0.08</td>
<td>0.03</td>
<td>0.08</td>
</tr>
<tr>
<td>Solvency (Financial charges coverage ratio)</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.54</td>
<td>0.59</td>
<td>0.00</td>
<td>0.59</td>
</tr>
</tbody>
</table>

Table 1.1

Analysis of the table 1.1 shows that, among all the variables, the value of \( R^2 \) is highest for variable strength 6.99%, which means that leverage is dependent on strength by 6.99%. That means 6.99% variation in leverage is caused by variable strength and 93.01% variation is caused by other variables. Independent variable must be significant to have good regression model. To check that significance of variable strength value of probability is considered. But Probability of three variables that is strength, profitability and risk is 2.13%, 3.15%, 3.91% which means that these three variables are more significant than the other variables to the leverage. As per the probability value, leverage is influenced by variable these three in comparison to other variables.

<table>
<thead>
<tr>
<th>Variables (Sales to Total assets)</th>
<th>coefficient</th>
<th>Std error</th>
<th>t-stat</th>
<th>prob</th>
<th>R²</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength</td>
<td>0.34</td>
<td>0.14</td>
<td>2.34</td>
<td>0.02</td>
<td>0.11</td>
<td>0.35</td>
</tr>
<tr>
<td>Profitability (Return on Total assets)</td>
<td>0.00</td>
<td>0.00</td>
<td>-2.19</td>
<td>0.03</td>
<td>0.11</td>
<td>0.41</td>
</tr>
<tr>
<td>Tangibility (F.A to T.A)</td>
<td>0.00</td>
<td>0.23</td>
<td>-0.01</td>
<td>0.99</td>
<td>0.06</td>
<td>0.85</td>
</tr>
<tr>
<td>Risk (Earnings for Dep.)</td>
<td>0.00</td>
<td>0.00</td>
<td>-2.09</td>
<td>0.04</td>
<td>0.10</td>
<td>0.44</td>
</tr>
<tr>
<td>Solvency (Financial charges coverage ratio)</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.73</td>
<td>0.47</td>
<td>0.06</td>
<td>0.81</td>
</tr>
</tbody>
</table>

Table 1.2

If we consider the effect of time period, above table 1.2 shows that, among all the variables, the value of \( R^2 \) is highest for variable strength 11.26%, which means that leverage is dependent on strength by 11.26%. That means 11.26% variation in leverage is caused by variable strength and 88.74% variation is caused by other variables. Independent variable must be significant to have good regression model. To check that significance of variable strength value of probability is considered. But Probability of three variables that is strength, profitability and risk is 2.13%, 3.15%, 3.91% which means that these three variables are more significant than the other variables to the leverage. As per the probability value, leverage is influenced by variable these three in comparison to other variables.
variables. Among all the variables, variable strength shows positive relation with the leverage i.e. by 33.9% and all other variables shows negative relation with the leverage. Overall analysis shows that there is no effect of time period which means capital structure remains same over the period. Once the capital structures has been formed, companies did not change their capital structure over years means that there is no effect of sales on the structure of capital.

6.3.4 Panel with Cross Section

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std error</th>
<th>t-stat</th>
<th>prob</th>
<th>R2</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength (Sales to Total assets)</td>
<td>0.74</td>
<td>0.24</td>
<td>3.11</td>
<td>0.00</td>
<td>0.53</td>
<td>0.00</td>
</tr>
<tr>
<td>Profitability (Return on Total assets)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.56</td>
<td>0.57</td>
<td>0.48</td>
<td>0.00</td>
</tr>
<tr>
<td>Tangibility (F.A to T.A)</td>
<td>0.09</td>
<td>0.18</td>
<td>0.49</td>
<td>0.63</td>
<td>0.48</td>
<td>0.00</td>
</tr>
<tr>
<td>Risk (Earnings for Dep.)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.58</td>
<td>0.56</td>
<td>0.48</td>
<td>0.00</td>
</tr>
<tr>
<td>Solvency (Financial charges coverage ratio)</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.07</td>
<td>0.94</td>
<td>0.48</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Table 1.3

If we introduce dummy variables, coefficients of all the variables have positive relation with leverage except solvency. Also the value of R² is highest for variable strength 53.3% but all the other variables are also good fitted by having regression of 48%, which means that leverage is dependent on all the variables. So, it can be stated that variation in leverage is caused by all the variables. Independent variables must be significant to have good regression model. To check that significance of variable strength value of probability is considered. Probability of the variable that is strength is 0.25%, which means that variable strength is more significant than the other variables to the leverage. As per the probability value, leverage is influenced by variable strength in comparison to other. Overall analysis shows 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.

VII. ANALYSIS OF THE RESULTS

The results of the study are analyzed in context with variables

7.1 Financial Strength

If we consider the regression values of variable strength than it has highest regression value i.e. 53.3% among all the variables and its coefficient values shows the positive relation with the leverage. The probability values i.e. 0.25% are also shows that strength is more significantly related to leverage than the other variables in consideration. This shows that capital structure is effected by financial strength of the company, which means that if a company have good financial strength than percentage of debt can be increased in capital structure. As creditors are secured about their interest payments. Although it also shows that if company is financially strong then liquidity of company is also strong.

7.2 Profitability

From the analysis it has been clear that profitability is another important indicator of forming capital structure. If we consider panel OLS and Panel with period analysis then it shows negative relation with leverage. This shows that profitable firms will have less amount of leverage because they rely mostly on internal financing. Also the regression value i.e 48.4% also shows that it is significantly important variable.

7.3 Tangibility

It also shows positive relation when panel with cross section analysis is done. Its regression value i.e 48.3% which shows that it is significantly related to leverage. Also the probability values shows its relation with the leverage holds good. Creditors can easily advance the finances to the company because companies can easily provide the security for the finances, which would provide security to the creditors at the time of bankruptcy. This will help the companies to increase the proportion of debt in their capital structure.

7.4 Risk

The coefficient of Variable risk with the help of pooled OLS and Pooled with time period shows negative relation between Risk and leverage. Regression values i.e 48.4% also shows that there is significant relation with the leverage. But the probability values shows variable risk does not have significant impact on capital structure. It means that if there is more risk than debt will less because creditors will not feel security for their finances where there is more chances of bankruptcy.

7.5 Solvency

It also shows that there is negative relation with leverage with panel data analysis. Regression values shows that it has a significant impact on the leverage, but the probability values do not show any significant relation with the capital structure. When a company is insolvent than the firm, then debt will be given by creditors only if they will get risk premiums for their finances. This leads to the fact that debt become the expensive source of finance for the companies and companies will prefer equity rather than debt.
VIII. CONCLUSION

The study was to examine the determinants and the effect of accounting variables that is financial strength, long term profitability, Tangibility of assets, Business risk and solvency on capital structure of oil companies listed on National Stock Exchange and to know that to what extent accounting variables that is financial strength, long term profitability, Tangibility of assets, Business risk and solvency effect capital structure of oil companies listed on National Stock Exchange. To identify the impact of variables on capital structure Panel data analysis is done with pooled OLS, Time period effect and cross section analysis. A sample of Ten oil companies listed on national stock exchange will be selected. Market capitalization would be the basis for this selection. Study covers the period of Ten years ranging from April 1, 2006 to March 31, 2015. Annual reports for the selected companies for this specific period would be used. Relationship of Leverage with the other variables is studied. Leverage is calculated by using the parameter of Debt equity ratio and five other explanatory variables are also calculated with the help of Different ratios like Strength is calculated by using Sales to total assets, Profitability is calculated by using Return on Total assets, Tangibility can be measured by using Fixed assets to total assets, Risk can be evaluated by using earnings before depreciation and Solvency is calculated by using Fixed charges Coverage ratio. It has been found that Variable strength is more significant and positively related with Leverage than the other variables which are shown by its regression values, as it is highest among all the variables.

It has also been found that all the explanatory variables are important a determinant of capital structure. It has been found that companies use different strategies for forming their capital structure irrespective of the fact that they belong to the same industry. Once the capital structure is formed there is no significant changes in capital structure over the years are found. Also it shows that capital structure is not affected by the sales to total assets, which means once capital structure is formed than it will not be adjusted according to the sales over the period.

REFERENCES