LONG TERM SOLVENCY (LEVERAGE) ANALYSIS OF SELECTED STEEL COMPANIES IN INDIA-AN EMPIRICAL STUDY

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ABSTRACT

India is among the top producers of all forms of steel in the world. Easy availability of low cost manpower and presence of abundant reserves make India competitive in the global setup. Finance is regarded as the life blood of a business. It is one of the foundations of all kinds activities. Management is interested in evaluating every activities of the firm. It is for the company to find out the long term requirement to meet its long term debt obligation. Leverage or long term funds indicate the proportion between owner’s funds and non-owners funds the present study is analysis the Lon term solvency position of selected steel companies in India, the secondary data were used for this study and analysed the data by using of Mean, SD, and one way ANOVA finally it conclude that companies belong to the same industry followed a different debt equity position during the study period.

Key Words: Leverage, Solvency ratios, Debt equity position,

INTRODUCTION

India is among the top producers of all forms of steel in the world. Easy availability of low cost manpower and presence of abundant reserves make India competitive in the global setup. The steel industry in India has witnessed an increase in demand due to expanding oil and gas sector, huge spending on infrastructural facilities coupled with growth in housing, consumer durables and auto sectors. According to the World Steel Association (WSA), India was the fourth largest producer of crude steel during January 2010–September 2010 and produced 50.1 million tonne (MT) crude steel during this period. At present, with the Government's increased emphasis on infrastructure, it is estimated that the sector is poised for significant growth. Finance is regarded as the life blood of a business. It is one of the foundations of all kinds’ activities. Management is interested in evaluating every activities of the firm. It is for the company to find out the long term requirement to meet its long term debt obligation. Leverage or long term funds indicate the proportion between owner’s funds and non-owners funds. It serves as a yardstick for judging the competence and efficiency of the management. We need proper management of long term requirement for making organization profitable. The term ‘Leverage’ or long term solvency refers to the ability of a concern to meet its long term obligations. The long-term liability of a firm is towards debenture holders, financial

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institutions providing medium and long term loans and other creditors selling goods on credit. These ratios indicate firm’s ability to meet the fixed interest and its costs and repayment schedules associated with its long term borrowings

**LONG TERM SOLVENCY RATIOS**

Solvency ratios are used to judge the long term financial soundness of any business. Long term Solvency means the ability of the Enterprise to meet its long term obligation on the due date. Long term lenders are basically interested in two things: payment of interest periodically and repayment of principal amount at the end of the loan period. Usually the following ratios are calculated to judge the long term financial solvency of the concern.

1. Debt equity ratio;
2. Total Assets to Debt Ratio;
3. Proprietary ratio;
4. Interest Coverage Ratio.

**STATEMENT OF THE PROBLEM**

Finance is regarded as a life blood of a business. Every firm measures its long term solvency (leverage) position. If organization maintain high leverage position it indicates the sound long term solvency position and to meet out long term obligation. And also its indicate firm’s ability to meet the fixed interest and its costs and repayment schedules associated with its long term borrowings If the firm is not maintain proper long term solvency position or leverage position , they will consequence to meet out it long term finance obligation. Leverage or long term fund indicates the proportion of owners fund and non-owners funds. This study analysis the long term solvency (leverage) position of selected companies in steel company in India

**OBJECTIVE OF THE STUDY**

- To study about leverage position of selected steel companies in India
- To study about the long- term financial strengths of companies.
- To compare the leverage position of a companies.
- To offer suggestion to improve the leverage management of the company on this study

**METHODOLOGY TO STUDY**

For this Empirical analysis, Data has been collected from the official NSE website and selected Steel company’s financial reports. The Steel Companies which satisfied the following criteria have been short listed for further research.

- Share holders population should be greater then 5,000
- Availability of data for at least for the period of 5 years
- Total debt is more than 100 cr.

Companies that meet the above conditions are Bhushan Steel Limited
Tata steel
JSW
Visa steel
SAIL

Statistical Tools Used
- Mean, Standard Deviation, Coefficient of Variations
- Anova

REVIEW OF LITERATURE

Adrian Morar (2009) Liquidity is necessary to the bank institutions for compensating the awaited or not awaited balance sheets fluctuations and for providing the necessary assets to development. The liquidity represents the capacity of a bank institution to cope efficiently with deposit withdrawals and other payable debts and covering the extra financing necessary, for credits and investment portfolio. A bank disposes of an adequate liquidity potential when it's able to obtain the necessary funds (by raising the debts, bonding, assets selling) immediately and at a reasonable price. The price of the liquidity depends on the market conditions and on the market perception of the risk level of the debtor institution.

Angamuthu & Sivanandum (2012) In this paper we examine long-term and short-term solvency status of Cement companies between 2000-01 and 2009-10. The five cement companies, four private owned and one Government owned are considered for the study. Results of the analysis reveals that there is no risk of solvency either in fulfilling long-term commitment in most of the cement manufacturing companies under study. Regarding short-term solvency, the study indicates that all cement companies have sufficient liquid assets to cover their short-term debt but a significant decline in short-term solvency level is found for majority of the companies as well as for all selected companies when pooled together. Overall this study envisages that long term solvency position is good while short-term solvency level is better for cement companies.

Assem & Titman This paper finds that, on average, targets that terminate takeover offers significantly increase their leverage ratios. Targets that increase their leverage ratios the most reduce capital expenditures, sell assets, reduce employment, increase focus, and realize cash flows and share prices that outperform their benchmarks in the five years following the failed takeover. Our evidence suggests that leverage-increasing targets act in the interests of shareholders when they terminate takeover offers and that higher leverage helps firms remain independent not because it entrenches managers, but because it commits managers to making the improvements that would be made by potential raiders.

Bhat(1980) conducts a study which is related financial leverage of Indian manufacturing company. They examine the financial leverage by employing various variables such as firm size, variability in income, growth, profitability, operating leverage and dividend payout policy. The researcher concludes that firm’s financial leverage is not associated with its size. The risky firm is more likely to employ less percentage of debt by witnessing with financial
leverage and EBIT. This paper funds negative co-relation between firms leverage with its growth. There is a negative related between dividend payout policy and leverage. They unconver that degree of operating leverage does not influence the level and usage of debt.

Bruno & Casamatta We analyze the optimal financing of investment projects when managers must exert unobservable effort and can also switch to less profitable riskier ventures. Optimal financial contracts can be implemented by a combination of debt and equity when the risk-shifting problem is the most severe while stock options are also needed when the effort problem is the most severe. Worsening of the moral hazard problems leads to decreases in investment and output at the macroeconomic level. Moreover, aggregate leverage decreases with the risk-shifting problem and increases with the effort problem.

Crutchley and Hansen (1989) tested whether insider holding lead to lower agency costs by analyzing the relation between leverage, dividend policy and insider holdings. They found that higher earnings volatility is positively related to higher insider holdings, larger dividends and lower debt. On the other hand, if manager’s faces lower costs of diversification, it leads to higher insider holdings, lower dividends, and lower debt. They concluded that managers control agency costs through financial policy trade off.

Daniel & Wheatley (2002) Prior research has shown that accounting information available prior to a bankruptcy is associated with the likelihood of bankruptcy. We show that additionally, the accounting information available prior to bankruptcy is associated with whether or not a firm will emerge from bankruptcy. We predict that firms that exhibit low solvency risk and high liquidity risk are most likely to emerge from bankruptcy. Firms that exhibit high solvency risk and high liquidity risk are predicted to be least likely to emerge from bankruptcy. Cross-sectionally, our results support these predictions, but our findings differ across large and small firms.

Doron Nissim & Stephen H. Penman This paper presents a financial statement analysis that distinguishes leverage that arises in financing activities from leverage that arises in operations. The analysis yields two leveraging equations, one for borrowing to finance operations and one for borrowing in the course of operations. These leveraging equations describe how the two types of leverage affect book rates of return on equity. An empirical analysis shows that the financial statement analysis explains cross-sectional differences in current and future rates of return as well as price-to-book ratios, which are based on expected rates of return on equity. The paper therefore concludes that balance sheet line items for operating liabilities are priced differently than those dealing with financing liabilities. Accordingly, financial statement analysis that distinguishes the two types of liabilities informs on future profitability and aids in the evaluation of appropriate price-to-book ratios.

Douglas & Rajan (2005) We show in this article that bank failures can be contagious. Unlike earlier work where contagion stems from depositor panics or contractual links between banks, we argue that bank failures can shrink the common pool of liquidity, creating, or exacerbating aggregate liquidity shortages. This could lead to a contagion of failures and a total meltdown of the system. Given the costs of a meltdown, there is a possible role for government intervention. Unfortunately, liquidity and solvency problems interact and can
cause each other, making it hard to determine the cause of a crisis. We propose a robust sequence of intervention.

Jensen, Solbery and Zorn (1992) analyzed the determinants of cross-sectional differences in insider holdings, debt and dividend policies of firms. They found that these three policies are related both directly and indirectly, with the operating characteristics of firms. This is the first study to explicitly state that while prior research assumes insider ownership to be an exogenous determinant of debt and/or dividend policy, rightfully it should be treated as a variable that is endogenously determined by many of the same first-specific attributes that affect debt and dividend policy.

Kader and Asarpota (2007) utilize bank level data to evaluate the performance of the UAE Islamic banks. Balance Sheet and income Statements of 3 Islamic banks and 5 conventional banks in the time period 2000 to 2004 are used to compile data for the study. Financial ratios are applied to examine the performance of the Islamic banks in profitability, liquidity, risk and solvency, and efficiency. The results of the study show that comparison with UAE conventional banks, Islamic banks of UAE are relatively more profitable, less liquid, less risky, and more efficient. They conclude that there are two important implications associated with this finding: First, attributes of the Islamic profit-and-loss sharing banking in UAE. Second, UAE Islamic banks should be regulated and supervised in a different way as the UAE Islamic banks in practice are different from UAE conventional banks.

Loan and Batrancea (2008) The management of bank liquidity is one of the problems that American banks currently encountered, while the crisis of real estate credits emerged at the end of the previous year in the United States tends to spread over Europe, Japan and other parts of the world, leading to a global crisis that will be greater than the global crisis from the '30s. That is why we believe that is imperiously urgent that banks should create own systems of liquidity analysis for the purpose of preventing at any moment their illiquidity and insolvency. The study that we present is an analysis guide for the liquidity state and preventing liquidity risk, where we highlight aspects regarding: the concept of bank liquidity, liquidity administration, liquidity risk management, liquidity indicators and methods for measuring liquidity risk.

Loan and Batrancea (2009) The management of entities liquidity is one of the problems that rose during since financial crisis begun. That is why we believe that is imperiously urgent that every entity should create own systems of liquidity analysis for the purpose of preventing at any moment their insolvency. The study that we present is an analysis guide for the liquidity state and preventing liquidity risk, where we highlight aspects regarding: the concept of liquidity, liquidity administration, liquidity risk management, liquidity indicators and methods for measuring liquidity risk.

Morellec (2001) Investigate the impact of assets liquidity on the valuation of corporate securities and the firm’s financing decision. This paper shows that assets liquidity increases debt capacity only when bond covenants restricts the disposition of assets. This study reveals that with unsecured debt, greater liquidity, increasing credit spreads on corporate debt and reduced the optimal leverage. This model also determines the extent to which pledging assets
increases firm values and related the optimal size of pledge to firm and industry character when liquidity is measured by the selling price of assets over the entire life of the firm, asset liquidity reduces the value of corporate debt by expanding the strategy space open to the borrower. In a rational expectation mode, bondholder anticipate the decrease in the value of corporate debt by expanding the strategy space open to the borrower. In a rational expectations mode, bondholder anticipate the decrease in the value of their claims and credit the value of their claims and credit spreads are increase. He shows liquidity value of the firm’s assets an increase in liquidity, optimal leverage and decrease the corporate spread by mathematical calculation.

**Nevins D. Baxter (1967)** examined that the risk associated with excessive leverage with likely increased the cost of capital of the firm. A high degree of debt increase the likelihood of bankruptcy and therefore increase the risk of overall earnings streams. Since there appear to be very real costs associated with bankruptcy other things equal, excess leverage can reduce value of the firm.

**Safieddin and Titman (1999)** presents result consistent with use of debt being positively associated with an alignment of interest between shareholder and managers as they target of failed takeovers that subsequently increased their leverage ratio tend to experience significantly better performance that those that do not.

**Samuel H. Baskar (1973)** utilized a simultaneous equation approach and found that leverage measured inversely by the ratio of equity to assets and had the theoretically correct negative sign and was significant as well. And also found that the predictability of output changes on total cost and hence on profit fluctuation may separately influence financial leverage decisions in expected ways, although their effect are not significant at ordinary test level.

**UriBen-Zion Soi S. Shalit (1975)** demonstrated that Fisher’s findings with respects to corporate bonds are also true for common stock: the firm’s size and leverage are important determinants of its risk. In addition, the firm’s dividend record measures the firm’s success in maintaining its target dividend policy, its underlying earning stability and, to some extent, simply its age.

**Viral & Viswanathan (2011)** Financial firms raise short-term debt to finance asset purchases; this induces risk shifting when economic conditions worsen and limits their ability to roll over debt. Constrained firms de-lever by selling assets to lower-leverage firms. In turn, asset–market liquidity depends on the system-wide distribution of leverage, which is itself endogenous to future economic prospects. Good economic prospects yield cheaper short-term debt, inducing entry of higher-leverage firms. Consequently, adverse asset shocks in good times lead to greater de-leveraging and sudden drying up of market and funding liquidity.

**ANALYSIS AND INTERPRETATION**

**DEBT-EQUITY RATIO**

The relationship between borrowed funds and owner’s capital is a popular measure of the long-term financial solvency of a firm. This relationship is shown by the debt-equity ratio. It is determined to ascertain soundness of the long-term financial policies of the company.
Debt- Equity Ratio = Total Debt /Shareholders Fund

Table No. 1. Mean, S.D., C.V of Debt-Equity Ratio for Select Steel Companies

<table>
<thead>
<tr>
<th>Company Year</th>
<th>BHUSHAN</th>
<th>SAIL</th>
<th>JSW</th>
<th>TATA</th>
<th>VISA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>2.81</td>
<td>0.54</td>
<td>1.02</td>
<td>0.58</td>
<td>3.94</td>
</tr>
<tr>
<td>2010</td>
<td>2.85</td>
<td>0.49</td>
<td>1.74</td>
<td>0.67</td>
<td>3.59</td>
</tr>
<tr>
<td>2009</td>
<td>3.97</td>
<td>0.26</td>
<td>2.12</td>
<td>0.90</td>
<td>3.18</td>
</tr>
<tr>
<td>2008</td>
<td>3.51</td>
<td>0.13</td>
<td>1.53</td>
<td>0.65</td>
<td>2.01</td>
</tr>
<tr>
<td>2007</td>
<td>2.66</td>
<td>0.24</td>
<td>0.74</td>
<td>0.69</td>
<td>1.57</td>
</tr>
<tr>
<td>2006</td>
<td>2.28</td>
<td>0.34</td>
<td>0.94</td>
<td>0.32</td>
<td>0.62</td>
</tr>
<tr>
<td>MEAN</td>
<td>3.01</td>
<td>0.33</td>
<td>1.34</td>
<td>0.63</td>
<td>2.48</td>
</tr>
<tr>
<td>S.D</td>
<td>2.52</td>
<td>0.44</td>
<td>0.84</td>
<td>0.44</td>
<td>2.25</td>
</tr>
<tr>
<td>C.V</td>
<td>84</td>
<td>135</td>
<td>62</td>
<td>71</td>
<td>91</td>
</tr>
</tbody>
</table>


Interpretation:
The above Table indicates that the Mean, S.D, C.V of Debt-Equity Ratio of select Steel Company in India, the higher mean value is 3.01 for Bhushan, and the lowest mean value for SAIL is 0.33. and also the indicates the highest S.D 2.52 for Bhushan and the lowest S.D value for SAIL & TATA is 0.44.

Chart 1: Debt-Equity Ratios for Selected Steel Companies
TOTAL DEBT RATIO

A ratio that indicates what proportion of debt a company has relative to its assets. The measure gives an idea to the leverage of the company along with the potential risks the company faces in terms of its debt-load. A debt ratio of greater than 1 indicates that a company has more debt than assets, meanwhile, a debt ratio of less than 1 indicates that a company has more assets than debt. Used in conjunction with other measures of financial health, the debt ratio can help investors determine a company's level of risk.

**Debt Ratio = Total Debt/Total Assets**

**Table No.2. Mean, S.D, C.V of Total debt Ratio for Select Steel Companies**

<table>
<thead>
<tr>
<th>Company</th>
<th>Year</th>
<th>BHUSHAN</th>
<th>SAIL</th>
<th>JSW</th>
<th>TATA</th>
<th>VISA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
<td>0.73</td>
<td>0.35</td>
<td>0.49</td>
<td>0.36</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>0.74</td>
<td>0.33</td>
<td>0.63</td>
<td>0.40</td>
<td>0.76</td>
</tr>
<tr>
<td></td>
<td>2009</td>
<td>0.76</td>
<td>0.21</td>
<td>0.67</td>
<td>0.47</td>
<td>0.74</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>0.77</td>
<td>0.11</td>
<td>0.60</td>
<td>0.39</td>
<td>0.66</td>
</tr>
<tr>
<td></td>
<td>2007</td>
<td>0.72</td>
<td>0.19</td>
<td>0.42</td>
<td>0.40</td>
<td>0.61</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>0.69</td>
<td>0.25</td>
<td>0.48</td>
<td>0.24</td>
<td>0.38</td>
</tr>
<tr>
<td>MEAN</td>
<td></td>
<td>0.735</td>
<td>0.24</td>
<td>0.54</td>
<td>0.37</td>
<td>0.65</td>
</tr>
<tr>
<td>S.D</td>
<td></td>
<td>0.44</td>
<td>0.418</td>
<td>0.48</td>
<td>0.47</td>
<td>0.44</td>
</tr>
<tr>
<td>C.V</td>
<td></td>
<td>60</td>
<td>174</td>
<td>89</td>
<td>128</td>
<td>69</td>
</tr>
</tbody>
</table>

S.D- Standard Deviation, C.V- Coefficient of Variation **Source: Secondary Data.**

**Interpretation:**

The above Table indicates that the Mean, S.D, C.V of Total debt Ratio of select Steel Company in India, the higher mean value is 0.735 for Bhushan, and the lowest mean value for SAIL is 0.24, and also indicates the highest S.D 0.48 for JSW and the lowest S.D value for SAIL is 0.418.

**Chart. 2 Total debt Ratios for Selected Steel Companies**
**PROPRIETARY RATIO**

Proprietary ratio relates the shareholders funds to total assets. It is a variant of the equity ratio. This ratio shows the long term or future solvency of the business. It is calculated dividing shareholders funds by the total assets. This ratio shows the financial strength of the company.

**Proprietary Ratio = Shareholders’ Fund / Total Assets**

**Table No. 3. Mean, S.D., C.V of Proprietary Ratio for Select Steel Companies**

<table>
<thead>
<tr>
<th>Year</th>
<th>BHUSHAN</th>
<th>SAIL</th>
<th>JSW</th>
<th>TATA</th>
<th>VISA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>0.26</td>
<td>0.64</td>
<td>0.48</td>
<td>0.62</td>
<td>0.19</td>
</tr>
<tr>
<td>2010</td>
<td>0.25</td>
<td>0.66</td>
<td>0.36</td>
<td>0.59</td>
<td>0.21</td>
</tr>
<tr>
<td>2009</td>
<td>0.19</td>
<td>0.78</td>
<td>0.31</td>
<td>0.52</td>
<td>0.23</td>
</tr>
<tr>
<td>2008</td>
<td>0.22</td>
<td>0.88</td>
<td>0.39</td>
<td>0.60</td>
<td>0.33</td>
</tr>
<tr>
<td>2007</td>
<td>0.27</td>
<td>0.80</td>
<td>0.57</td>
<td>0.58</td>
<td>0.38</td>
</tr>
<tr>
<td>2006</td>
<td>0.30</td>
<td>0.74</td>
<td>0.51</td>
<td>0.74</td>
<td>0.61</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>0.24</strong></td>
<td><strong>0.75</strong></td>
<td><strong>0.43</strong></td>
<td><strong>0.60</strong></td>
<td><strong>0.32</strong></td>
</tr>
<tr>
<td><strong>S.D</strong></td>
<td>0.41</td>
<td>0.42</td>
<td>0.48</td>
<td>0.47</td>
<td>0.44</td>
</tr>
<tr>
<td><strong>C.V</strong></td>
<td>171</td>
<td>57</td>
<td>112</td>
<td>79</td>
<td>137</td>
</tr>
</tbody>
</table>

**S.D- Standard Deviation , C.V- Coefficient of Variation . Source: Secondary Data.**

**Interpretation:**

The above Table 3 inferred that the Mean, S.D, C.V of Proprietary Ratio of select Steel Company in India, the higher mean value is 0.75 for SAIL, and the lowest mean value for
Bhushan is 0.24, and also indicates the highest S.D 0.48 for JSW and the lowest S.D value for Bhushan is 0.41.

**Chart 3. Proprietary Ratios for Selected Steel Companies**

![Proprietary Ratios for Selected Steel Companies](chart)

**INTEREST COVERAGE RATIO**

This ratio measures the debt servicing capacity of a firm in so far as fixed interest on long term loan is concerned. That is, the relationship between Earnings Before Interest and Tax (EBIT) and fixed interest charges. It is expressed in percentage or number of times. It also highlights the ability of the firm to raise additional funds in future.

**Interest coverage ratio = EBIT / Interest**

<table>
<thead>
<tr>
<th>Company</th>
<th>Mean</th>
<th>S.D</th>
<th>C.V</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHUSHAN</td>
<td>5.24</td>
<td>4.84</td>
<td>92</td>
</tr>
<tr>
<td>SAIL</td>
<td>28.28</td>
<td>30.14</td>
<td>107</td>
</tr>
<tr>
<td>JSW</td>
<td>4.38</td>
<td>4.11</td>
<td>123</td>
</tr>
<tr>
<td>TATA</td>
<td>13.93</td>
<td>17.14</td>
<td>17</td>
</tr>
<tr>
<td>VISA</td>
<td>1.79</td>
<td>1.68</td>
<td>6</td>
</tr>
</tbody>
</table>

S.D- Standard Deviation , C.V- Coefficient of Variation . **Source: Secondary Data.**
Interpretation:

The above Table indicates that the Mean, S.D, C.V of Interest Coverage Ratio of select Steel Company in India, the higher mean value is 28.28 for SAIL, and the lowest mean value for VISA is 1.79, and also the indicates the highest S.D 30.14 for SAIL and the lowest S.D value for VISA is 1.68. High ratio indicates the better is the position of long term creditors.

**Chart 4: Interest Coverage Ratios for Selected Steel Companies**

![Interest Coverage Ratios Chart]

### One – Way ANNOVA Table for Debt Equity Ratio

<table>
<thead>
<tr>
<th>Source</th>
<th>Degree of freedom</th>
<th>Sum of Square</th>
<th>Mean Square</th>
<th>F-ratio</th>
<th>5% F-limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Companies</td>
<td>2</td>
<td>10.44</td>
<td>5.22</td>
<td>7.90</td>
<td>F(2,15)=3.68</td>
</tr>
<tr>
<td>Within Companies</td>
<td>15</td>
<td>9.96</td>
<td>0.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>20.41</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

In order to find out whether the mean value of debt – equity ratio of the companies differ from each other, Hypotheses of the study was formulated like that

**Null Hypothesis**

$H_0 =$ Debt – equity ratio position of Selected companies does not differ significantly.

**Alternate Hypothesis**

$H_1 =$ Debt – equity ratio position of Selected companies does differ significantly.

The ANOVAs table has shown that, there is significant difference among the mean value of debt equity position among the companies. Since the calculated value of F is 7.90 which greater than table value of 3.68 (CV > TV at 5% significant level), the Null Hypothesis is
rejected and alternative hypothesis is accepted. It can be clear that companies belonging to the same Steel industry have maintaining different Debt – Equity position among themselves.

FINDING FROM THE STUDY

- Gradual increase in their debt equity position, Bhushan showed highest mean value is 3.01 and lowest mean value for SAIL is 0.33 and also indicates the highest S.D is 2.52 for Bhushan and lowest S.D is 0.44 for SAIL and TATA.
- There has been moderate fluctuation in their total debt ratio. Bhushan is having highest mean value is 0.735 and lowest debt ratio of mean value is 0.24 for SAIL, and also showed highest S.D for JSW is 0.48 and lowest S.D is 0.44 for Bhushan and VISA.
- There has been decrease in their proprietary ratio. From 2006 all selected companies decrease their proprietary ratio. The highest mean value of proprietary ratio for SAIL is 0.75 and lowest mean value of proprietary ratio for 0.24 for Bhushan and also the highest value of S.D is 0.48 for JSW and lowest S.D is 0.41 for Bhushan.
- Gradual increase and decrease in their interest coverage ratio. The highest mean value of interest coverage ratio is 28.28 for SAIL and lowest mean value of interest coverage ratio for VISA is 1.79 and also showed the highest S.D for SAIL is 30.14 and lowest S.D is 1.68 for VISA.
- From the ANOVA table there is significant difference of debt equity ratio of JSW, TATA and VISA. The calculated F Value 7.90 has been greater than the table value 3.68 at 5% level of significance. Hence Null hypothesis was rejected.

CONCLUSION

Long term Liquidity plays a vital role in survival of a business. Some describe it as solvency, but it would be better if the term ‘solvency’ is reserved for “ability to survive in the long run”. From the above analysis its found and conclude that Debt equity ratio of Bhushan and Visa is more than 2:1 ratio, it showed the restriction in borrowing funds, and Bhushan is having highest total debt ratio from others, they need to decrease their total debt position. SAIL has been in sound position in proprietary ratio from other companies. Bhushan, JSW & VISA is below the average of 60%, they need to increase their position. From the ANOVA result it can conclude that companies belong to the same industry follows a different debt equity position during the study period.

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