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# THE SHORT TERM AND LONG TERM SOLVENCY RATIO ANALYSIS OF SELECTED STEEL COMPANIES IN INDIA

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## ABSTRACT

India was the world's third largest steel producer in 2016. The growth in the Indian steel sector has been driven by domestic availability of raw materials such as iron ore and cost effective labor. Consequently the steel sector has been a major contributor to India's manufacturing output. This study tries to find out the Solvency analysis of selected steel companies in India. Eight steel companies have been selected for the study, the period of study 2006 - 07 to 2015 - 2016. Various tools like Mean, SD, Correlation, and ANOVA were used for analysis.From the correlation analysis it canconclude that there is negative relationship between Mukand and SAIL in maintaining their current ratio position. From the ANOVA result it is conclude that companies belong to the same industry follows a different debt equity positionduring the study period.

# Key Words: Financial statement, Steel Companies, Liquidity Analysis, Correlation and solvency ratio

#### INTRODUCTION

Finance is regarded as the life blood of a business. This is one of the bases of all kinds' activities. Management is interested in evaluating every activities of the firm. It is for the company to find out the short term requirement in order to meet day to day activities and long term requirement to meet its long term debt obligation. Liquidity is related to working capital analysis. Leverage or long term funds indicate the proportion between owner's funds and non-

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owners funds. It acts as a criterionjustifying the efficiency of the management. The company needssystematic management for short term and long term needs. The term 'solvency' implies ability of an enterprise to meet its long term indebt ness and thus, solvency ratios convey the long term financial prospects of the company. The shareholders, debenture holders and other lenders of the long term finance/term loans may be basically interested in the ratios falling under this group. The term 'solvency' or long term solvency refers to the ability of a concern to meet its long term obligations. The long-term liability of a company is towards debenture holders, financial institutions providing medium and long term loans and other lenders loans. These ratios indicate firm's ability to meet the fixed interest and its costs and repayment schedules associated with its Long term borrowings.

# SOLVENCY RATIOS

Short term Solvency Ratios

- Current Ratio
- Quick Ratio
- Absolute Liquid Ratio

Long term Solvency Ratios

- Debt Equity Ratio
- Total Debt Ratio
- Proprietary Ratio

# **STATEMENT OF THE PROBLEM**

Finance is regarded as a life blood of a business. Every company measures its liquidity position (short term solvency) and long term solvency position. If the company maintain high liquidity situation it indicates the sound solvency position and to meet our current obligation. If the company is not maintain proper liquidity position, they will consequence to meet out it short term finance obligation. A lower liquidity may rise due to lack of control; liquidity is being related to working capital Analysis. Long term fund indicates the proportion of owners fund and non-owners funds. The study examines the solvency position of selected steel companies in India.

# **OBJECTIVE OF THE STUDY**

• To study about the short- term financial strength of selected steel companies in India

• To study about the long- term financial strength of selected steel companies in India **METHODOLOGY TO STUDY** 

The study is mainly based on secondary data. For this analysis, data has been collected from the official website of money control.com and selected Steel company's financial reports. For the purpose of this study, the set of the steel companies are determined using the criteria stated below;

- Availability of data for at least for the period of 10 years
- Total CA, Loans & Advances more than 700 cr.

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• Total Debt is more than 700 cr.

## Companies that meet above conditions are

- SAIL
- TATA STEEL
- BHUSHAN STEEL
- JSW STEEL
- JINDAL STEEL AND POWER
- JINDAL STAINLESS
- USHA MARTIN
- MUKAND INDUSTRIES

# STATISTICAL TOOLS USED

Mean, Standard Deviation, Coefficient of variation: Used to find out the average position of accounting ratios related to solvency analysis

**Correlation Analysis**: Used to identify the relationship between short term solvency positions of the companies

**ANOVA**: To test that companies belonging to the same industry whether follow a different level of long term solvency position during the study period.

# PERIOD OF THE STUDY

The present study covers a period of 10 years starting from 2007 - 2008 to 2016-2017, in order to evaluate the short term and long term solvency ratio analysis of selected steel Companies in India.

## **REVIEW OF LITERATURE**

**Bhunia**, (2010) has analysed the importance of liquidity management on profitability as a factor responsible for poor financial performance in the private sector steel Industry in India. Krishnamoorthi (2012) found that Liquidity plays an important 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". In the course of the study, the firm has a different debt balance, indicating that it belongs to the same industry. Angamuthu and Siyanandam (2012) examined 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 longterm commitment in most of the cement manufacturing companies under study. Regarding shortterm 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. Mahavidylaya and Ray (2012) the term liquidity refers to the capability of a firm to meet short-term financial obligations (current liabilities) by converting the short-term assets (current assets) into cash without suffering any loss. The liquidity of a firm actually depends on effective management of the composition of current assets versus current liabilities. Khidmat and Rehman (2014) research that liquidity ratio has positive impact on the

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company profitability ROA and solvency ratio has negative impact on the ROA and ROE. Liquidity, solvency and profitability are operating in opposite direction when one is decreases the other become increases. The data has been taken from 36 companies and 10 companies listed in Pakistan The main objective is to define the relationship between liquidity and profitability of companies. Liquidity ratio shows the positive result while solvency ratio shows the negative result on profitability because if company has more cash than it is capable of countering the liquidity problem. Arab and Atmasoumiand Barati (2015) examined the financial performance of identified units in the steel industry in India in terms of financial ratios under Liquidity, Solvency, Activity and Profitability. A group of companies listed in the stock exchanges in India namely, Tata Steel Ltd., Jindal Steel and Power Ltd., JSW Steel Ltd., Bhushan Steel Ltd. and Steel Authority of India Ltd. were selected for the study. ANOVA was used to assess the impacts of selected variables on the financial performance of identified units in the steel industry. Finally, it was ANOVA was used to assess the impacts of selected variables on the financial performance of identified units in the steel industry. Finally, it was decided that there was a significant difference in financial performance, liquidity, solvency activity and profitability of units identified in steel industry in India. Yadav (2014) The current ratio, quick ratio, and absolute liquid ratio of pharmaceutical companies gives analysis of liquidity position of the companies that creditors, suppliers are interested to know the liquidity position of the company to meet its short term obligations that how much company is capable to pay its liabilities on time the analysis is based on three pharmaceutical companies i.e. Procter and gamble, Reddy and Cipla ltd. Cipla ltd company has good effect on the liquidity ratio but the other companies has to manage their liquidity position for better results or outcomes so in this way the companies can improve their performance and increase profitability. Venugopala Rao and Farha Ibrahim (2017) found that the solvency position of IDBI Bank and the employment of assets are in tune with the industry averages. The employment of shareholders' funds and the CASA which is relatively lower than the bellwether suggests that attention has to be paid in these areas. Net profit margin of IDBI Bank indicates that the profits of thebank is declining and is well below the industry averages suggesting that the operations of the bank has to improve.

#### **DATA ANALYSIS AND INTERPRETATION** SHORT TERM SOLVENCY RATIOS **Current** ratio

Current ratio may be defined as the relationship between current Assets to current Liabilities. This ratio is also known as working capital ratio, is the most common ratio for measuring liquidity.

#### **Current Ratio = Current Assets/ Current Liabilities.**

MEAN, S.D, C.V OF CURRENT RATIO FOR SELECTED STEEL COMPANIES									
YEAR/COMPANY	SAIL	ТАТА	BHUSHAN	JSW	JSP	JS	USHA	MUKAND	
2007	1.16	0.54	1.42	0.43	0.84	0.79	0.93	2.29	
2008	1.16	0.53	1.23	0.41	0.89	0.99	0.78	1.92	

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2009	1.32	0.51	1.22	0.29	0.55	0.60	0.64	1.72
2010	0.95	0.46	1.47	0.35	0.54	1.07	0.46	2.50
2011	2.34	0.71	0.95	0.52	0.68	1.31	0.72	1.81
2012	1.71	0.61	0.84	0.48	0.68	1.03	0.77	1.65
2013	1.62	0.48	1.11	0.45	1.01	1.24	0.68	1.56
2014	1.23	0.39	0.90	0.47	0.86	1.10	0.58	1.47
2015	1.09	0.49	1.52	0.54	0.72	0.93	0.64	1.92
2016	0.87	0.52	1.61	0.48	0.35	0.80	0.52	1.99
MEAN	1.34	0.52	1.23	0.44	0.71	0.99	0.67	1.88
SD	0.41	0.08	0.26	0.07	0.19	0.20	0.13	0.30
CV	30.84	15.55	21.09	16.35	26.16	20.77	19.06	16.08

#### Interpretation

The above Table 1 shows that the Mean, S.D, C.V of Current Ratio of selected Steel Companies in India , the higher mean value 1.88 for Mukand Industries, Sail-1.34,Bhushan Steel -1.23 and the lowest mean value for JSW is 0.44, and also the S.D is 0.41 is higher for Sail and the lowest S.D value for JSW is 0.07. The lowest CV value for Tata is 15.55 and the highest CV value for Sail is 30.84.

#### **Quick ratio:**

Quick Ratio is also known as Acid Test (or) Liquid Ratio. The Standard norm is 1:1. The Quick Ratio measures a company's ability to meet its short term obligations with its most liquid assets. The higher the Quick Ratio, the better the position of the company.

## **Quick Ratio = Quick Assets/Current Liabilities**

Liquid Assets includes all current Assets except inventories & prepaid expenses.

MEAN, S.D, C.V OF QUICK RATIO FOR SELECTED STEEL COMPANIES									
YEAR/COMPANY	SAIL	ТАТА	BHUSHAN	JSW	JSP	JS	USHA	MUKAND	
2007	0.34	0.17	0.60	0.12	0.30	0.31	0.37	1.24	
2008	0.39	0.15	0.44	0.11	0.25	0.27	0.25	0.90	
2009	0.33	0.12	0.46	0.07	0.16	0.15	0.29	0.89	

#### TABLE NO: 2

CASIRJ	V	olume 8	8 Issue 12	[Year - 2	<u>2017]</u>	IS	<u>SN 231</u>	<u>9 - 9202</u>
2010	0.28	0.11	0.44	0.07	0.18	0.50	0.10	1.27
2011	1.53	0.38	0.13	0.21	0.18	0.55	0.21	0.93
2012	0.77	0.30	0.27	0.22	0.16	0.39	0.26	0.81
2013	0.55	0.18	0.34	0.18	0.29	0.47	0.22	0.77
2014	0.44	0.09	0.25	0.14	0.31	0.38	0.18	0.65
2015	0.26	0.05	0.38	0.17	0.22	0.34	0.14	0.82
2016	0.15	0.10	0.36	0.15	0.11	0.30	0.13	0.89
MEAN	0.50	0.16	0.37	0.14	0.22	0.37	0.21	0.92
SD	0.38	0.10	0.12	0.05	0.07	0.11	0.08	0.18
CV	75.46	58.93	33.39	34.47	30.33	30.75	36.92	20.15

#### Interpretation

The above Table 2indicates that the Mean, S.D, C.V of Quick Ratio of selected Steel Companies in India , the higher mean value is0.92 for Mukand Industries, and the lowest mean value for JSW is 0.14, and also indicates the highest S.D is 0.38 for Sail and the lowest S.D value for JSW is 0.05. The lowest CV value for Mukand Industries is 20.15 and the highest CV value for Sail is 75.46.

#### **Absolute Liquid Ratio:**

It is otherwise called as Cash position Ratio. When Liquidity is highly restricted in terms of cash & equivalents, this ratio should be calculated. The inventory and the debtors are excluded from current Assets.

#### Absolute Liquid Ratio = Absolute Liquid Assets / Current Liabilities

#### TABLE NO: 3

MEAN, S.D, C.V OF ABSOLUTE LIQUID RATIO FOR SELECTED STEEL COMPANIES									
YEAR/COMPANY	SAIL	ТАТА	BHUSHAN	JSW	JSP	JS	USHA	MUKAND	
2007	0.05	0.10	0.02	0.05	0.04	0.04	0.002	0.09	
2008	0.05	0.08	0.01	0.04	0.06	0.02	0.002	0.07	
2009	0.03	0.07	0.08	0.02	0.03	0.003	0.001	0.04	
2010	0.02	0.05	0.05	0.01	0.01	0.13	0.006	0.09	

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2011	1.24	0.04	0.01	0.14	0.01	0.11	0.06	0.10
2012	0.44	0.25	0.06	0.15	0.01	0.04	0.11	0.07
2013	0.26	0.13	0.02	0.08	0.01	0.02	0.04	0.06
2014	0.15	0.05	0.01	0.02	0.11	0.01	0.05	0.06
2015	0.11	0.03	0.01	0.08	0.04	0.01	0.01	0.06
2016	0.01	0.06	0.02	0.03	0.03	0.02	0.002	0.05
MEAN	0.24	0.08	0.03	0.06	0.03	0.04	0.03	0.07
SD	0.36	0.06	0.02	0.05	0.03	0.04	0.03	0.02
CV	151.17	72.87	77.25	74.91	85.31	100.02	116.95	26.85

#### Interpretation

The above Table 3indicates that the Mean, S.D, C.V of Cash Position of selected Steel Companies in India, the higher mean value is0.24 for Sail, and the lowest mean value for Bhushan, Jindal steel and power and Usha Martin is 0.03, and also indicates the highest S.D 0.36 for Sail and the lowest S.D value for Bhushan and Mukand Industries is 0.02. The lowest CV value for Mukand Industries 26.85 and the highest CV value for Sail are 151.17 **Correlation Analysis** 

Coefficient of correlation (r) is a mathematical method of measuring correlation. It gives the degree of relationship between two variables. The values of r lie between +1 and -1. When r=1, means perfect positive correlation, r=-1 means perfect negative correlation, r=0 means no relationship between variables. It can be calculated as

$$\mathbf{r} = \frac{\sum XY}{\sqrt{\sum X^2 \sum Y}}$$

	0.4	CORREI	LATION ANA	LYSIS	1	-	
С	ORRELATION I	BETWEEN CU	URRENT RA	TIO OF MU	KAND A	ND SAIL	4
Year	X (MUKAND)	Y (SAIL)	X=x-mean	Y=y-mean	XY	X^2	Y^2
2007	2.29	1.16	0.41	-0.19	-0.078	0.1681	0.0361
2008	1.92	1.16	0.04	-0.19	-0.008	0.0016	0.0361
2009	1.72	1.32	-0.16	-0.03	0.005	0.0256	0.0009
2010	2.5	0.95	0.62	-0.4	-0.248	0.3844	0.16

TABLE NO: 4

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2016	1.99	0.87	0.11	-0.48	-0.053	0.0121	0.2304
2016	1.99	0.87	0.11	-0.48	-0.053	0.0121	0.2304
2016	1.99	0.87	0.11	-0.48	-0.053	0.0121	0.2304
TOTAL	18.83	13.45		1724	-0 58	0.92	1 73
TOTAL	18.83	13.45			-0.58	0.92	1.73
MEAN	1.88	1.35		-	P		
MEAN	1.88	1.35			1		

#### Source: Secondary Data

#### Interpretation

The above Table 4indicates the correlation between two variables is negative. There is negative relationship (r = -0.46) between Mukand Industries and Sail. It can be clear that companies belonging to the same steel industries have maintaining different current ratio position.

#### LONG TERM SOLVENCY RATIOS

#### **Total Debt Ratio**

Total Debt Ratio 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 risk the company faces in terms of its debt – load. A debt ratio of greater than 1 indicates that company has more debt than assets; meanwhile, a debt ratio of less than 1 indicates that 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.

#### **Total Debt Ratio= Total Debt/Total Assets.**

MEAN, S.D, C.V	MEAN, S.D, C.V OF TOTAL DEBT RATIO FOR SELECTED STEEL COMPANIES									
YEAR/COMPANY	SAIL	ТАТА	BHUSHAN	JSW	JSP	JS	USHA	MUKAND		
2007	0.19	0.41	0.73	0.43	0.58	0.65	0.51	0.64		
2008	0.12	0.40	0.78	0.50	0.51	0.70	0.51	0.67		
2009	0.21	0.48	0.77	0.59	0.48	0.81	0.59	0.75		
2010	0.33	0.40	0.74	0.54	0.55	0.80	0.36	0.77		

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#### TABLE NO: 5

CASIRJ	Vo	lume 8	<u>[ssue 12 [</u>	<u>Year - 2</u>	<u>017]</u>	ISS	<u>- 9202</u>	
2011	0.34	0.36	0.72	0.38	0.57	0.79	0.49	0.73
2012	0.29	0.31	0.72	0.40	0.57	0.81	0.59	0.78
2013	0.34	0.32	0.75	0.45	0.61	0.88	0.63	0.81
2014	0.36	0.30	0.78	0.51	0.63	0.98	0.68	0.80
2015	0.39	0.28	0.83	0.50	0.68	0.98	0.73	0.83
2016	0.45	0.31	0.90	0.56	0.68	1.02	0.80	0.84
MEAN	0.30	0.36	0.77	0.49	0.59	0.84	0.59	0.76
SD	0.20	0.06	0.05	0.07	0.06	0.12	0.12	0.06
CV	65.09	16.79	6.93	13.41	10.64	13.85	20.89	8.47

#### Interpretation

The above Table 5indicates that the Mean, S.D, C.V of Total Debt ratio of selected Steel Companies in India, the higher mean value is 0.84 for Jindal stainless, and the lowest mean value for Sail is 0.30, and also indicates the highest S.D 0.20 for Sail and the lowest S.D value for Bhushan is 0.05. SD value for Tata, Jindal steel and power, and Mukand industries are 0.06. The lowest CV value for Mukand Industries 8.47 and the highest CV value for Sail are 65.09.

#### **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**

MEAN, S.D, C.V	MEAN, S.D, C.V OF DEBT EQUITY RATIO FOR SELECTED STEEL COMPANIES									
YEAR/COMPANY	SAIL	ТАТА	BHUSHAN	JSW	JSP	JS	USHA	MUKAND		
2007	0.24	0.68	2.67	0.75	1.40	1.87	1.04	1.74		
2008	0.13	0.66	3.52	0.98	1.03	2.33	1.05	2.00		
2009	0.27	0.91	3.32	1.42	0.92	4.37	1.44	3.03		
2010	0.50	0.68	2.86	1.19	1.24	3.93	0.56	3.28		
2011	0.51	0.56	2.62	0.62	1.32	3.85	0.94	2.67		

#### TABLE NO: 6

CASIRJ	Vo	lume 8	<u>[ssue 12 [</u>	<u>Year - 2</u>	2017]	ISSN	<u>2319</u>	<u> </u>
2012	0.40	0.45	2.55	0.67	1.33	4.24	1.42	3.53
2013	0.52	0.47	2.97	0.83	1.58	7.31	1.72	4.17
2014	0.57	0.43	3.48	1.03	1.74	56.37	2.11	4.02
2015	0.65	0.39	4.89	1.00	2.09	53.56	2.73	5.01
2016	0.80	0.44	8.96	1.28	2.09	-42.15	4.04	5.28
MEAN	0.46	0.57	3.78	0.98	1.47	9.57	1.71	3.47
SD	0.19	0.15	1.85	0.25	0.38	26.53	0.98	1.12
CV	41.67	27.33	48.79	25.78	25.85	277.22	57.43	32.14

#### Interpretation

The above Table 6 indicates that the Mean, S.D, C.V of Debt equity Ratio of selected Steel Companies in India, the higher mean value is 9.57 for Jindal stainless, and the lowest mean value for Sail is 0.46, and also indicates the highest S.D 26.53 for Jindal Stainless and the lowest S.D value for Tata is 0.15. The lowest CV value for Jsw25.78 and the highest CV value for Jindal stainless are 277.22.

#### **Proprietary Ratio**

Proprietary Ratio is also known as Equity 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 = Shareholder's Funds/Total Assets**

#### TABLE NO:7

MEAN, S.D, C.V OF PROPRIETARY RATIO FOR SELECTED STEEL COMPANIES								
YEAR/COMPANY	SAIL	TATA	BHUSHAN	JSW	JSP	JS	USHA	MUKAND
2007	0.81	0.59	0.27	0.57	0.42	0.35	0.49	0.36
2008	0.88	0.60	0.22	0.50	0.49	0.30	0.49	0.33
2009	0.79	0.52	0.23	0.41	0.52	0.19	0.41	0.25
2010	0.67	0.60	0.26	0.46	0.45	0.20	0.64	0.23
2011	0.66	0.64	0.28	0.62	0.43	0.21	0.51	0.27
2012	0.71	0.69	0.28	0.60	0.43	0.19	0.41	0.22

CASIRJ	Vo	lume 8	<u>Issue 12 []</u>	<u>Year - 2</u>	<u>017]</u>	ISS	<u>N 2319</u>	<u> </u>
2013	0.66	0.68	0.25	0.55	0.39	0.12	0.37	0.19
2014	0.64	0.70	0.22	0.49	0.37	0.02	0.32	0.20
2015	0.61	0.72	0.17	0.50	0.32	0.02	0.27	0.17
2016	0.55	0.69	0.10	0.44	0.32	-0.02	0.20	0.16
MEAN	0.70	0.64	0.23	0.51	0.41	0.16	0.41	0.24
SD	0.10	0.06	0.05	0.07	0.06	0.12	0.12	0.06
CV	13.66	9.28	23.35	12.68	15.07	74.61	29.91	26.97

#### Interpretation

The above Table 7indicates that the Mean, S.D, C.V of Proprietary Ratio of selected Steel Companies in India, the higher mean value is0.70 for Sail, and the lowest mean value for Jindal Stainless is 0.16, and also indicates the highest S.D 0.12 for Jindal Stainless and Usha Martin. The lowest S.D value for Bhushan is 0.05 and Jindal Steel and Power, Mukand Industries is 0.06. The SD of JSW Steel is 0.07. The lowest CV value for Tata9.28 and the highest CV value for Jindal stainless are 74.61.

## ANOVA

The Analysis of variance (ANOVA) technique is important in the contest of all those situations where we want to compare more than two populations. ANOVA tables provide us with meaningful comparisons of sample data which are classified.

According to two (or) more variables, it helps us to draw inferences about whether the samples have been drawn from population having the same mean.

We have to make to estimate of population variance Viz., One based on between samples variance and the other based on within samples variance. Then, two estimates of population variance compared to the F Test.

 $\mathbf{F}$  = Estimate of population variance based on between sample variance / Estimate of population variance based on with in sample variance

#### TABLE NO: 8

Source of Variation	Df	SS	MS	F ratio	5% F limit
Between Years	2	117.5	58.75		
Between Companies	27	120.06	4.45	13.21	F(2,27) = 3.354
Total	29	237.56			

Note: P Value <0.05 - Significant at 5% Level.

Source: Secondary Data

#### Interpretation

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

#### **Null Hypothesis**

#### Ho = Debtequity ratio position of Selected companies does not differ significantly.

#### Alternate Hypothesis

#### H1 = 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 13.21 which greater than table value of 3.354 (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 them.

#### FINDINGS FROM THE STUDY

The highest Mean value of Current Ratio for Mukand Industries is 1.88 and the lowest mean value for JSW is 0.44, and other companies are maintaining Average level Sail-1.34 and Bhushan Steel -1.23, and also the S.D is 0.41 is higher for Sail and the lowest S.D value for JSW is 0.07. The lowest CV value for Tata is 15.55 and the highest CV value for Sail is 30.84.

Mukand Industries has the highest portion of quick ratio position is 0.92 as compared to other selected steel companies. Sail maintaining average level Quick ratio position is 0.50. The lowest mean value for JSW is 0.14, and also indicates the Sail have highest value of S.D is 0.38. The lowest S.D value for JSW is 0.05. The lowest CV value for Mukand Industries 20.15 and the highest CV value for Sail are 75.46.

If the cash position of the higher mean value is0.24 for Sail, and the lowest mean value for Bhushan, Jindal steel and power and Usha Martin is 0.03, and also indicates the highest S.D. 0.36 for Sail and the lowest S.D value for Bhushan and Mukand Industries is 0.02. The lowest CV value for Mukand Industries 26.85 and the highest CV value for Sail are 151.17

From the correlation analysis, there is negative relationship between Mukand Industries and Sail's Current Ratio Position, so that the companies belong to same steel industry aremaintaining different level of Current Ratio Position.

Total Debt ratio of higher mean value is0.84 for Jindal stainless, and the lowest mean value for Sail is 0.30, and also indicates the highest S.D 0.20 for Sail and the lowest S.D value for Bhushan is 0.05. SD value for Tata, Jindal steel and power, and Mukand industries are 0.06. The lowest CV value for Mukand Industries 8.47 and the highest CV value for Sail are 65.09.

Debt equity Ratio of the higher mean value is9.57 for Jindal stainless, and the lowest mean value for Sail is 0.46, and also indicates the highest S.D 26.53 for Jindal Stainless and the lowest S.D value for Tata is 0.15. The lowest CV value for JSW 25.78 and the highest CV value for Jindal stainless are 277.22.

Proprietary Ratio of the higher mean value is0.70 for Sail, and the lowest mean value for Jindal Stainless is 0.16, and also indicates the highest S.D 0.12 for Jindal Stainless and Usha Martin. The lowest S.D value for Bhushan is 0.05 and Jindal Steel and Power, Mukand Industries is 0.06. The SD of JSW Steel is 0.07. The lowest CV value for Tata 9.28 and the highest CV value for Jindal stainless are 74.61.

From the ANOVA table there is significant difference of debt equity ratio of Tata, JSW and Mukand Industries. The calculated F Value 13.21 has been greater than the table value 3.354 at 5% level of significance. Hence Null hypothesis was rejected.

#### CONCLUSION

Liquidity plays a vital role in survival of a business. Liquidity Ratios are most important to stabilise the financial needs. The short term solvency position of JSW, Tata, Jindal steel and power and usha martin was not good during the study period as current ratio and quick ratio were lower than standard norms. So the above companies need to increase their current ratio and Quick ratio position. Debt equity ratio of Bhushan, Mukand Industries and Jindal stainless is more than 2:1 ratio, it shows that restriction to borrowing funds, and Jindal stainless having highest total debt ratio from others and need to decrease their total debt position. Sail has been in sound position in proprietary level from other selected steel companies. Bhushan, Jindal stainless and Mukand industries are showing the below the average of 25% and they need to increase their position.From the correlation analysis, it can be concluded that there is negative relationship between Mukand Industries and SAIL for maintaining their current ratio position. From the ANOVA result, it is concluded that companies belonging to the same industry followed a different debt equity position during the study period.

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