

Liquidity analysis: An Empirical study of Selected still Companies listed in BSE in India

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Abstract: In this research paper researcher has tried to analyzed the liquidity situation of selected still companies listed in BSE in India. Name of the four selected still companies are (1) Tata Steel (2) Bajaj Steel Industries (3) SAL Steel (4) Jindal Steel & Power. Period of the present study is five years 2015 to 2019. Current ratio, quick ratio, inventory turnover ratio were analytical tools. mean, range, ANOVA single factor test, were used as statistical tools. The result Current ratio shows Bajaj Steel Company Ltd. are outstanding companies while rest of the co. does not perform properly in the terms of current ratio. which is validated by the result of ANOVA test because the result is significant which means that all companies performance are not similar. Whereas quick ratio shows good liquidity position of Bajaj Steel Company Ltd. out of four selected firms. Inventory turnover ratio shows good performed by SAL Ltd. Thus liquidity position is weak because huge amount of debt make technical risk for the companies. Anova test result for current ratio, quick ratio and inventory turnover ratio shows insignificance difference.

Key Words: : Liquidity, still companies, Current ratio, Quick ratio and ANOVA test.

1. INTRODUCTION:

Steel used for influence like the buildings we work in, on our lives, the homes in which we live, the cars we drive, and countless other facets in between. This mettle is also used in our tower of electric supply. pipeline to natural gas, military weapons and many more. Steel is most adaptable of materials, multi-functional and most important, The backbone of grow of nation economy was laid on the strength and huge uses of steel.

The steel companies has developed updated technical era and has strived hard to make the world's strongest and most versatile material even better. This can be achieved by refining the structure and applying alloying techniques and thus furthering its utility value.

Liquidity term is defined as the ability of a company to meet its financial obligations as they come due. The liquidity ratio, then, is a computation that is used to measure a company's ability to pay its short-term debts. There are three common calculations that fall under the category of liquidity ratios. The current ratio is the most liberal of the three. It is followed by the acid ratio, and the cash ratio. These three ratios are often grouped together by financial analysts when attempting to accurately measure the liquidity of a company.

2. REVIEW OF LITERATURE:

Researcher has refers articles, research papers relevant to chosen research topic. it's conclusion from the researcher point of view is as given below.

Goswami Suvarun & Sarkar Aniruddha, (September 2011), worked on “Analysis of Financial Performance of Tata Steel – A Case Study”. He analyzed financial performance through liquidity and profitability ratios from 2000-01 to 2009-10 and he concluded that eight working capital ratios are positively associate with profitability ratios and remaining working capital ratios are negatively correlated. This study also mentioned that operating and financial leverage of the companies resulted in high risk.

Dr. Chetna Parmar, Ca Mitul Parmar, (September 2012), worked on “Testing the Financial Performance: BSE 30”, in this paper researcher explained the importance of fundamental profitability and liquidity analysis and market analysis to invest in market.

Research study made by **Ruchika Bammi, (June 2013)**, on “An Empirical Analysis of Environmental and Financial Performance of BSE 100 Companies”, researcher compared environmental variable with the financial performance like PBDIT and ROCE, current ratio, Quick ratio, ITR, green house effect, gas emission data were used. Researcher also measured marketing performance through average market return.

3. OBJECTIVES OF THE STUDY:

Objective of Selected research topic is given below.

"To analyze the liquidity position of selected steel company listed in BSE in India during the period of the study. "

4. HYPOTHESIS OF THE STUDY:

Ho- There is no significant different among the liquidity ratios of the selected steel co. listed in BSE in India during the period of the study.

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5. METHODOLOGY OF THE STUDY:

Data Collection: - The research study is based on secondary data, researcher has collected this data from the websites of respective companies and website of money control.

Period of study: - researcher has selected conveniently a five years period from 2015 to 2019 for the study.

Sample size for the study: - The study Sample is selected four companies out of all listed steel companies in BSE India. This data were collected on the basis of availability of relevant data on website.

As a sample selected companies are (1) Tata Steel (2) Bajaj Steel Industries (3) SAL Steel (4) Jindal Steel & Power

Tools and Techniques for research: - One way ANOVA test is used for examine the liquidity position of selected steel companies in BSE India through liquidity ratios.

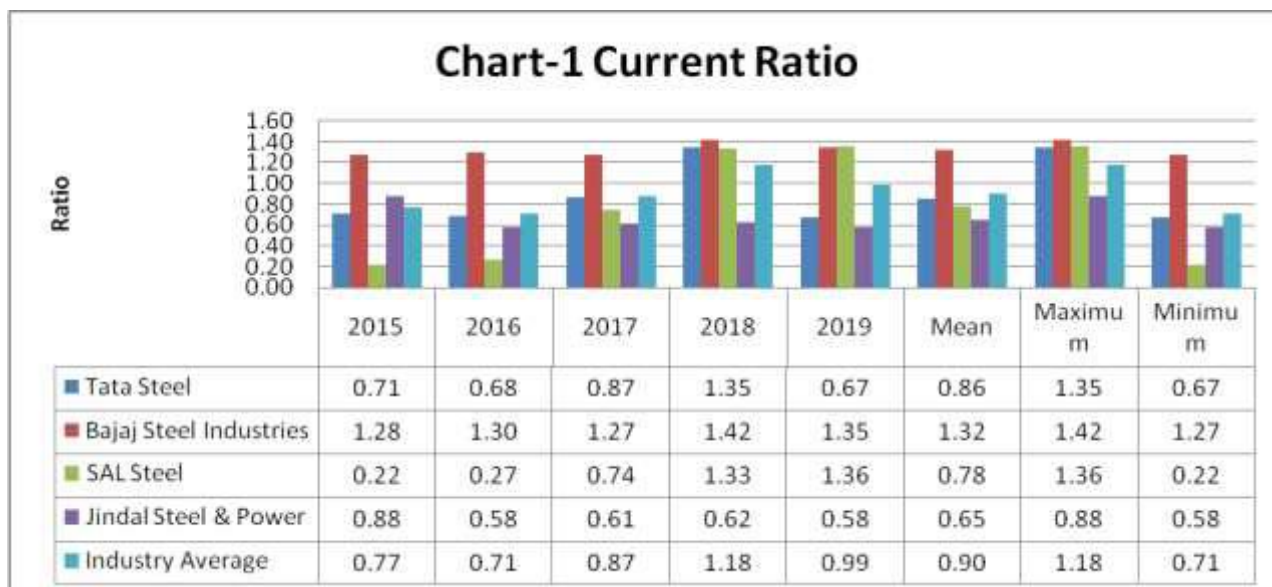
6. ANALYSIS OF DATA AND ITS' INTERPRETATION:

Current ratio:

Current ratio is the measure of liquidity. The ideal current ratio is 2:1. Current ratio is calculated on the basis of current assets and current liabilities. Higher amount of current assets over current liability strengthens current ratio. But higher amount of current liabilities over current assets weakens thus, management of working capital focuses on current ratio. higher current ratio means firm is able to meet its current liabilities when it's get matured. Remember that a liability which will mature within a period of twelve months is a current liabilities it include creditors, bills payable, bank overdraft, outstanding expenses, provision for taxation etc., similarly current assets are in the form of cash or can be readily converted into cash within a short time. It include cash, bank balance, stock, debtors, bills receivable, prepaid expenses, accrued income, ruddily makeable securities etc.

Name of Company	2015	2016	2017	2018	2019	Mean	Maxi	Mini
Tata Steel	0.71	0.68	0.87	1.35	0.67	0.86	1.35	0.67
Bajaj Steel Industries	1.28	1.30	1.27	1.42	1.35	1.32	1.42	1.27
SAL Steel	0.22	0.27	0.74	1.33	1.36	0.78	1.36	0.22
Jindal Steel & Power	0.88	0.58	0.61	0.62	0.58	0.65	0.88	0.58
Industry Average	0.77	0.71	0.87	1.18	0.99	0.90	1.18	0.71

(Source: Data computed by researcher from www.moneycontrol.com).



From the analysis of above table no.1 shows current ratio, Tata Steel was 0.71 in 2015 which decrease to 0.68 in 2016 and it rose to 0.87 in 2017 again it increase 1.35 in 2018 and it slipped to 0.67 in 2019. The highest ratio of this company was 1.35 in 2018 and lowest was 0.67 in 2019. The average ratio of the company was 0.86 which were lower to industry average. This ratio has fluctuated trend.

Current ratio of Bajaj Steel industries was 1.258 in 2015 which increase to 1.30 in 2016 and it down to 1.27 in 2017 it was increase to 1.42 in 2018 and it slipped to 1.35 in 2019. The highest ratio of this company was 1.42 in 2018 and lowest was 1.27 in 2017. The average ratio of the company was 1.32 which were higher to industry average. This ratio has fluctuated trend.

Current ratio of SAL steel was 0.22 in 2015 which increase to 0.27 in 2016 and again it rose to 74 in 2017 it was increase to 1.33 in 2018 and again it was rose to 1.36 in 2019. The highest ratio of this company was 1.36 in 2019 and lowest was 0.22 in 2015. The average ratio of the company was 0.78 which were lower to industry average. This ratio has fluctuated trend.

Current ratio of Jindal steel & power was .088 in 2015 which decrease to 0.58 in 2016 and it up to 0.61 in 2017 it was increase to 0.62 in 2018 and it was down to 0.58 in 2019. The highest ratio of this company was 0.88 in 2015 and lowest was 0.58 in 2016 & 2019. The average ratio of the company was 0.65 which were lower to industry average. This ratio has fluctuated trend.

Source of Variation	SS	df	MS	F	P-value	F crit
Between Companies	0.56	4.00	0.14	0.90	0.49	3.06
Within COmpanies	2.34	15.00	0.16			
Total	2.90	19.00				

(Source: Data computed by researcher from SPSS).

Table no. 2 is of Anova table of current ratio of selected steel co. listed in BSE in India. The calculated value is 0.49 and critical value is 3.06 calculated value is less than critical value. Hence, null hypothesis is selected and alternative hypothesis is rejected. The deference is insignificant.

Quick ratio:

Quick ratio of all the components of current assets, inventory is the less liquid assets. Its book value not be reliable, because market value may fluctuate and their value also very when there are changes in the quality of inventory. In some cases inventory may turn out to be damaged, obsolete, or determinate value. Therefore, inventory is often a sign of trouble since of it may not be converted into cash within a year, if at all converted into cash, the value realized may not be equal to book value. So, inventory is excluded from liquidity assets. Quick ratio explains the relationship between liquidity assets and current liabilities. Quick ratio= Liquid assets/ current liabilities

Name of Company	2015	2016	2017	2018	2019	Mean	Max	Min
Tata Steel	0.23	0.35	0.43	0.92	0.23	0.43	0.92	0.23
Bajaj Steel Industries	0.76	0.73	0.78	0.95	0.81	0.81	0.95	0.73
SAL Steel	0.1	0.17	0.36	0.47	1.05	0.43	1.05	0.10
Jindal Steel & Power	0.6	0.43	0.48	0.42	0.34	0.45	0.60	0.34
Industry Average	0.42	0.42	0.51	0.69	0.61	0.53	0.69	0.42

(Source: Data computed by researcher from www.moneycontrol.com).



From the analysis of above table no.3 shows Quick ratio, Tata Steel was 0.23 in 2015 which increase to 0.35 in 2016 and it rose to 0.43 in 2017 again it increase 0.92 in 2018 and it slipped to 0.23 in 2019. The highest ratio of this company was 0.92 in 2018 and lowest was 0.23 in 2019. The average ratio of the company was 0.43 which were lower to industry average. This ratio has fluctuated trend.

Quick ratio of Bajaj Steel industries was 0.76 in 2015 which decrease to 0.73 in 2016 and it up to 0.78 in 2017 it was increase to 0.95 in 2018 and it slipped to 0.81 in 2019. The highest ratio of this company was 0.95 in 2018 and lowest was 0.73 in 2016. The average ratio of the company was 0.81 which were higher to industry average. This ratio has fluctuated trend.

Quick ratio of SAL steel was 0.1 in 2015 which increase to 0.17 in 2016 and again it rose to 0.36 in 2017 it was increase to 0.47 in 2018 and again it was rose to 1.05 in 2019. The highest ratio of this company was 1.05 in 2019 and lowest was 0.10 in 2015. The average ratio of the company was 0.43 which were lower to industry average. This ratio has flourish trend.

Quick ratio of Jindal steel & power was .0.6 in 2015 which decrease to 0.43 in 2016 and it up to 0.48 in 2017 it was decrease to 0.42 in 2018 and it was down to 0.34 in 2019. The highest ratio of this company was 0.60 in 2015 and lowest was 0.34 in 2016 & 2019. The average ratio of the company was 0.45 which were lower to industry average. This ratio has fluctuated trend.

Table no. 4 is of Anova table of Quick ratio						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Companies	0.56	4.00	0.14	0.90	0.49	3.06
Within Companies	2.34	15.00	0.16			
Total	2.90	19.00				

(Source: Data computed by researcher from SPSS).

Table no. 4 is of Anova table of quick ratio of selected steel co. listed in BSE in India. The calculated value is 0.49 and critical value is 3.06 calculated value is less than critical value. Hence, null hypothesis is selected and alternative hypothesis is rejected. The deference is insignificant.

Inventory turnover ratio:

This ratio is also known as stock turnover ratio it is measure effectiveness of inventory or material or stock with cost of goods sold with average inventory for a particular period. In other term, This ratio is indicate that number of time of turnover of material in the company during the year.

Inventory turnover ratio describe with the example of high and low inventory turnover ratio. All time do not affect the level of inventory to the business. The level of low inventory shows poor stock management like under stock or overstock. and high inventory or stock turnover ratio level are kept good identification mark of effective and good inventory or stock management of the company. Thus, a higher inventory turnover ratio does not always mean very good performance.

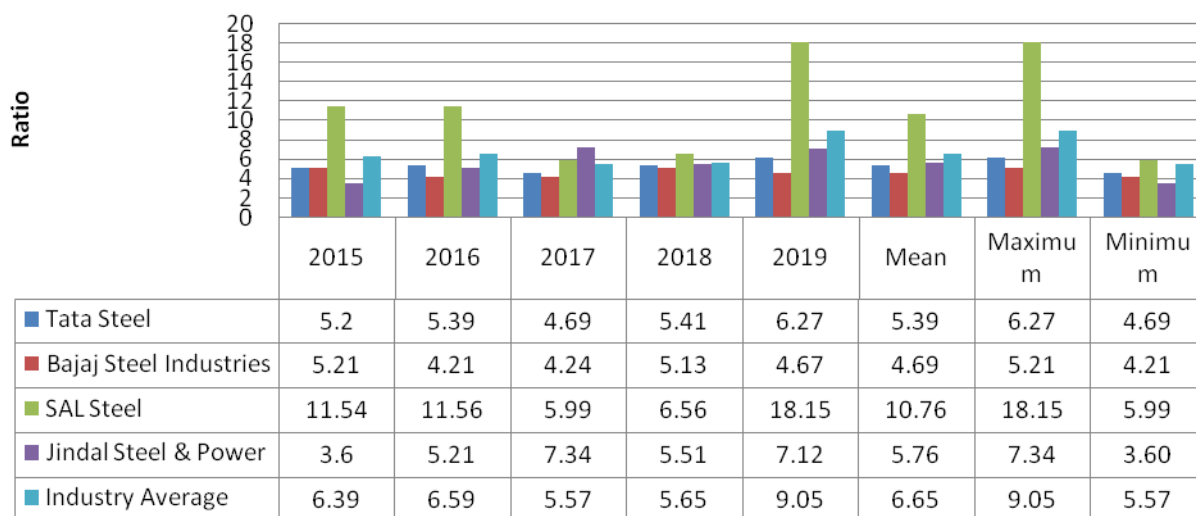
Inventory/stock turnover = Sales / Stock/Inventory and another,

Inventory T/o = COGS / Average of inventory where, COGS=Cost of goods sold

Table No. 5 Inventory turnover Ratio								
Name of Company	2015	2016	2017	2018	2019	Mean	Maximum	Minimum
Tata Steel	5.2	5.39	4.69	5.41	6.27	5.39	6.27	4.69
Bajaj Steel Industries	5.21	4.21	4.24	5.13	4.67	4.69	5.21	4.21
SAL Steel	11.54	11.56	5.99	6.56	18.15	10.76	18.15	5.99
Jindal Steel & Power	3.6	5.21	7.34	5.51	7.12	5.76	7.34	3.60
Industry Average	6.39	6.59	5.57	5.65	9.05	6.65	9.05	5.57

(Source: Data computed by researcher from www.moneycontrol.com).

Chart -3 Inventory turnover ratio



The analysis of above table no.5 shows Inventory turnover ratio, Tata Steel was 5.2 in 2015 which increase to 5.39 in 2016 and it down to 4.69 in 2017 again it increase 5.41 in 2018 and it up to 6.27 in 2019. The highest ratio of this company was 6.27 in 2019 and lowest was 4.69 in 2017. The average ratio of the company was 5.39 which were lower to industry average. This ratio has fluctuated trend.

Inventory turnover ratio of Bajaj Steel industries was 5.21 in 2015 which decrease to 4.21 in 2016 and it up to 4.24 in 2017 it was increase to 5.13 in 2018 and it slipped to 4.67 in 2019. The highest ratio of this company was 5.21 in 2015 and lowest was 4.21 in 2016. The average ratio of the company was 4.69 which were lower to industry average. This ratio has fluctuated trend.

Inventory turnover ratio of SAL steel was 11.54 in 2015 which increase to 11.56 in 2016 and it down to 5.99 in 2017 it was increase to 6.56 in 2018 and again it was rose to 18.15 in 2019. The highest ratio of this company was 18.15 in 2019 and lowest was 5.99 in 2017. The average ratio of the company was 10.76 which was higher to industry average. This ratio has flourish trend.

Inventory turnover ratio of Jindal steel & power was 3.6 in 2015 which increase to 5.21 in 2016 and it up to 7.34 in 2017 it was decrease to 5.51 in 2018 and it was rose to 7.12 in 2019. The highest ratio of this company was 7.34 in 2017 and lowest was 3.60 in 2015. The average ratio of the company was 5.76 which were lower to industry average. This ratio has fluctuated trend.

Source of Variation	SS	df	MS	F	P-value	F crit
Between Companies	0.56	4.00	0.14	0.90	0.49	3.06
Within Companies	2.34	15.00	0.16			
Total	2.90	19.00				

(Source: Data computed by researcher from SPSS).

Table no. 4 is of Anova table of Inventory turnover ratio of selected steel co. listed in BSE in India. The calculated value is 0.49 and critical value is 3.06 calculated value is less than critical value. Hence, null hypothesis is selected and alternative hypothesis is rejected. The deference is insignificant.

7. CONCLUSION:

Liquidity is significant ingredients of any company. liquidity maintenance at suitable level indicates better sign of good management. In order to analyze the liquidity position, researcher has used current ratio, quick ratio and inventory turnover ratio. Out of four selected still company, current ratio of none is good because none has the current ratio closure to ideal ratio. The quick ratio of all four selected companies is Tata Steel, Bajaj Steel Industries, SAL Steel, Jindal Steel & Power ltd are good. The inventory turnover ratio of all four selected companies indicates same position. Researcher has run ANOVA test to test hypothesis for all four ratios of selected still companies. ANOVA test of current ratio all selected still companies shows insignificant difference. ANOVA test of quick ratio of all four

selected still companies also insignificant difference and also inventory turnover ratio of four selected still companies firms have the insignificant difference.

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