LIQUIDITY ANALYSIS OF SELECTED BSE: 30 COMPANIES

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Abstract

The main object of this paper is to analyze the liquidity performance of BSE 30 Companies for the period of 05 years commencing from 2012-13 to 2016-17. For this purpose, the liquidity ratios like current ratio and quick ratio are calculated. In addition to that the ANOVA has been used for testing hypothesis. The result reveals that the liquidity position of Infosys company ltd is good among all units listed in BSE – 30 Companies during the study period and HDFC ltd and Tata Motors ltd is having lowest liquidity ratios during the study period. Furthermore it also found that there is no significant difference in current ratio and quick ratio during the study period.

Keywords: liquidity performance, Current Ratio, Quick Ratio, Working Capital Management.

Introduction

The term 'liquidity' refers that the debt-repaying capacity of an undertaking. It refers to the firm's ability to meet the claims of suppliers of goods, services and capital. Liquidity management is measured from the short term assets – working capital management as most of the indicator used for measuring liquidity are a function of the components of WC. Liquidity plays vital role in the any business enterprises smooth functioning to get success.

Literature Review

- **Khandelwal (1985)** this study was based on SSI in Jodhpur manufacturing estate to the highlight their working capital management practices. This study exposed that the instant liquidity position of the selected SSI units was not satisfactory during the period of the study. Furthermore, this study was represented that the inventory and receivables were also not at all satisfactory.

- **Venkatachalam and Murthy (1986)** attempt to discover of the working capital position and its impact on liquidity position of the medium and large public limited companies in India from period of 1974 to 1983. In this study researcher has concluded that the liquid asset of the medium as well as large scale of public limited companies was not significant.

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- **Dr. Panigrahi Ashok Kumar (2013).** This present study researcher focused on study to liquidity position of most five leading Indian cement companies. Researcher has concluded that current ratio, quick ratio and working capital to current assets of all the companies are unhelpful which indicates an unsafe or unsound position of liquidity.
- **Barad Mahesh (2010)** this present study was analyzed financial performance of liquidity can be judged by investment in working capital. In the present study liquidity measured through various ratios like quick ratio, current ratio, inventory turnover ratio working capital turnover ratio, average collection period. In addition to also found that the liquidity to shine day-to-day business activities which can't be over show upped.

Research Methodology

The main objective of the study is to know the liquidity position of selected BSE – 30 Companies.

- **Hypothesis of the Study**

H_0:   There is no significant difference in liquidity of selected BSE – 30 Companies during the study period.

- **Sample Design**

The total no. of corporate sector units is the universe of the study. The population of the study consists of all the corporate sector units which are listed in BSE. At this stage researcher has decided to take sample of BSE – 30 units as on 24th August 2015 for the proposed study. Conventional sampling technique has been used.

- **Period of the Study**

The researcher has undertaken the study is for 05years from 2010-11 to 2015-16.

- **Source of Data**

This research paper mainly depends on the secondary data, researcher collected the data from Annual reports of the company and other printed media.

- **Tools and Techniques**

For the analysis of data in the form of various liquidity ratios, the statistical tools like Average mean, SD and ANOVA has been employed. The following ratios have been used in this study.

Current Ratio:

$$\textbf{Current Ratio} \ = \ \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Quick Ratio:

$$\textbf{Quick Ratio} \ = \ \frac{\text{Liquid Assets}}{\text{Liquid Liabilities}}$$

Liquid Asset   =   Current Asset –Inventories

Liquid Liability =   Current Liability – Bank Overdraft

- **Data Analysis of Liquidity**

Table 1: Current Ratio (Proportion) of BSE 30 Companies (2012-13 to 2016-17)

Companies	Years					Mean	S.D.
	2016-17	2015-16	2014-15	2013-14	2012-13		
Axis Bank Ltd	1.91	2.21	2.40	2.05	1.88	2.09	0.216
Bajaj Auto Ltd.	2.92	1.56	2.13	1.19	1.5	1.86	0.683
Bharti Airtel Ltd.	0.51	0.41	0.78	0.59	0.32	0.52	0.177
BHEL	1.96	1.9	2.19	2.04	1.83	1.98	0.139
Cipla Ltd.	2.48	2.19	1.84	2.11	2.99	2.32	0.438
Coal India Ltd.	2.78	3.23	2.6	2.58	2.28	2.69	0.349
Dr. Reddy Lab. Ltd	2.02	2.33	2.22	2.17	1.62	2.07	0.276
GAIL India Ltd.	1	0.96	1.06	1.17	1.01	1.04	0.081
HDFC Bank Ltd.	0.86	1.06	1.12	0.96	0.78	0.96	0.138
HDFC Ltd	0.34	0.26	0.27	0.3	0.36	0.31	0.043
Hero Motocorp. Ltd.	1.82	1.78	1.36	1.26	1.22	1.49	0.290
Hindalco Ltd.	1.61	1.98	1.75	1.74	2.07	1.83	0.189
HUL	1.3	1.43	1.05	1.04	0.99	1.16	0.192
ICICI Bank Ltd.	1.24	1.38	1.67	1.67	2.09	1.61	0.327
Infosys Ltd.	4.05	3.98	3.12	3.83	4.82	3.96	0.606
ITC Ltd.	3.59	3.66	2.05	1.82	1.7	2.56	0.977
L & T Ltd.	1.45	1.38	1.4	1.33	1.41	1.39	0.044
Lupin Ltd.	3.61	3.71	3.89	3.45	2.01	3.33	0.757
Mahindra & Mahindraltd	1.32	1.18	1.13	1.29	1.1	1.20	0.097
Maruti Suzuki India ltd	0.65	0.71	0.96	1.38	1.31	1.00	0.335
NTPC Ltd.	0.75	0.87	1.22	1.58	1.81	1.25	0.452
ONGC Ltd.	1.39	1.52	1.48	1.56	1.74	1.54	0.129
Reliance Industries Ltd.	0.7	0.74	1.27	1.42	1.73	1.17	0.445
SBI Bank Ltd.	1.99	2.05	1.17	1.10	1.01	1.46	0.513
Sun Pharmaceutical ltd.	0.58	0.62	0.49	1.35	3.37	1.28	1.217
Tata Motors Ltd.	0.58	0.63	0.42	0.36	0.48	0.49	0.111
Tata Steel Ltd.	0.87	0.68	0.72	0.61	0.7	0.72	0.096
TCS Ltd.	6.41	4.72	2.46	2.84	2.46	3.78	1.744
Vedanta Ltd.	0.68	0.52	0.42	0.39	0.35	0.47	0.132
Wipro Ltd.	3.52	2.98	2.3	2.19	1.76	2.55	0.697

Source: Computed and compiled from published annual reports and BSE Database website

Chart 1: Current Ratio (Proportion)
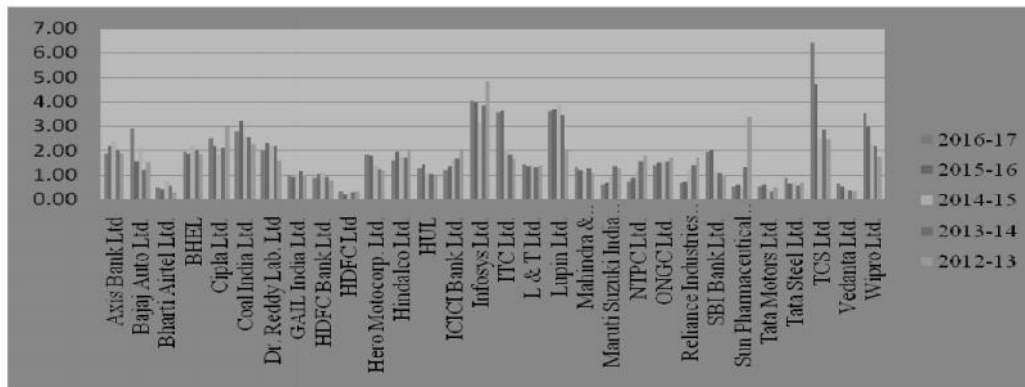
From the above table and chart no. 1 shows that the current ratio of selected BSE – 30 Companies during the study period. It is found that the highest average value of the current ratio of Infosys Company ltd was 3.96:1, which is good sign among all the units listed in BSE – 30 companies during the study period and lowest value of this ratio of HDFC ltd was found at 0.31:1 among all the units listed in BSE – 30 companies during the study period.

Testing of Hypotheses

H_0= There is no significant difference in the current ratio of selected BSE – 30 Companies.

H_1= There is significant difference in the current ratio of selected BSE – 30 Companies.

Table 2: ANOVA Table for Current Ratio

Source of Variation	SS	df	MS	F cal	F tab
SS Between Companies	127.4342	29	4.394282	14.84268	1.565322
SS Between Years	1.628449	4	0.407112	1.375113	2.44988
Error	34.34263	116	0.296057		
Total	163.4053	149			

From the above table no. 2 shows that two - way ANOVA of current ratio which depicts that 'F' Calculated value (14.84) of SS between companies has been more than 'F' Table value (1.56) so null hypothesis has been rejected and alternate hypothesis is accepted which shows that there is significant difference in current ratio between companies. So far as concern to years 'F' calculated value (1.37) of SS between years is less than the 'F' Table value (2.44) so null hypothesis has been accepted and alternate hypothesis has been rejected which shows that there is no significant difference in current ratio during the study period.

Table 3: Quick Ratio (Propo.) of BSE 30 Companies (2012-13 to 2016-17)

Companies	Years					Mean	S.D.
	2016-17	2015-16	2014-15	2013-14	2012-13		
Axis Bank Ltd	1.67	1.92	2.12	1.89	1.46	1.81	0.253
Bajaj Auto Ltd.	2.7	1.32	1.95	1.05	1.35	1.67	0.661
Bharti Airtel Ltd.	0.51	0.41	0.77	0.59	0.32	0.52	0.173
BHEL	1.65	1.55	1.73	1.65	1.41	1.60	0.123
Cipla Ltd.	1.44	1.2	0.93	1.09	1.99	1.33	0.413
Coal India Ltd.	2.73	3.15	2.58	2.58	2.28	2.66	0.317
Dr. Reddy Lab. Ltd	1.59	1.94	1.86	1.78	1.25	1.68	0.275
GAIL India Ltd.	0.8	0.78	0.85	0.93	0.84	0.84	0.058
HDFC Bank Ltd.	0.63	0.82	0.93	0.72	0.61	0.74	0.134
HDFC Ltd	0.34	0.26	0.27	0.3	0.36	0.31	0.043
Hero Motocorp. Ltd.	1.66	1.59	1.15	1.1	1.06	1.31	0.289
Hindalco Ltd.	1.1	1.3	1.08	1.04	1.28	1.16	0.121
HUL	0.98	1.05	0.76	0.72	0.66	0.83	0.171
ICICI Bank Ltd.	1.06	1.13	1.24	1.24	1.92	1.32	0.345
Infosys Ltd.	4.05	3.98	3.12	3.83	4.82	3.96	0.606
ITC Ltd.	2.44	2.32	1.38	1.18	1.06	1.68	0.654
L & T Ltd.	1.41	1.34	1.35	1.28	1.35	1.35	0.046
Lupin Ltd.	2.78	2.73	2.84	2.51	1.3	2.43	0.645
Mahindra &Mahindraltd	1.03	0.91	0.86	0.97	0.8	0.91	0.090
Maruti Suzuki India ltd	0.41	0.43	0.82	1.28	1.18	0.82	0.407
NTPC Ltd.	0.58	0.67	1	1.36	1.63	1.05	0.447

ONGC Ltd.	1.16	1.29	1.19	1.26	1.41	1.26	0.098
Reliance Industries Ltd.	0.47	0.52	0.87	0.97	1.22	0.81	0.315
SBI Bank Ltd.	1.62	1.93	1.11	0.97	0.92	1.31	0.444
Sun Pharmaceutical Ltd.	0.37	0.37	0.3	1.13	2.61	0.96	0.985
Tata Motors Ltd.	0.33	0.36	0.19	0.15	0.27	0.26	0.089
Tata Steel Ltd.	0.43	0.35	0.23	0.29	0.38	0.34	0.078
TCS Ltd.	6.41	4.72	2.45	2.84	2.46	3.78	1.746
Vedanta Ltd.	0.59	0.44	0.18	0.19	0.18	0.32	0.189
Wipro Ltd.	3.5	2.94	2.27	2.18	1.74	2.53	0.693

Source: Computed and compiled from published annual reports and BSE Database website

Chart 2: Quick Ratio (Proportion)
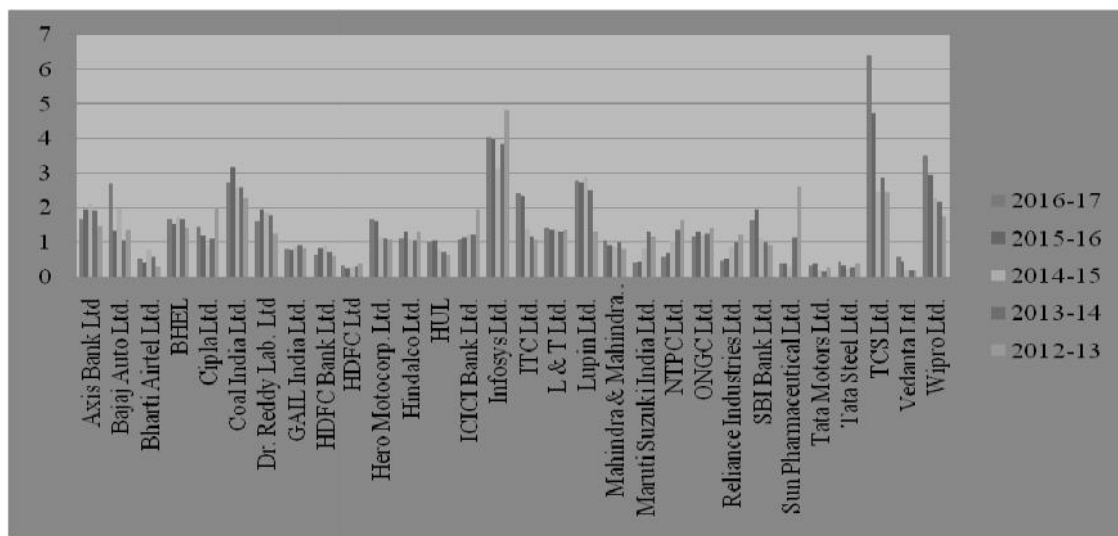
From the above table no. 3 and chart no.2 shows that the quick ratio of selected BSE – 30 Companies during the study period. It is found that the highest average value of the quick ratio of Infosys ltd was 3.96:1 which is good sign among all the units listed in BSE – 30 companies during the study period and lowest value of this ratio of Tata Motors ltd was found at 0.26:1 among all the units listed in BSE – 30 companies during the study period.

Testing of Hypotheses

$H_0=$ There is no significant difference in the quick ratio of selected BSE – 30 Companies.

$H_1=$ There is significant difference in the quick ratio of selected BSE – 30 Companies.

Table 4: ANOVA Table for Quick Ratio

ANOVA					
Source of Variation	**SS**	**df**	**MS**	**F cal**	**F tab**
SS Between Companies	122.763	29	4.233208	17.0143	1.565322
SS Between Years	1.562171	4	0.390543	1.569686	2.44988
Error	28.86115	116	0.248803		
Total	153.1863	149			

From the above mention table no.4 shows two - way ANOVA of quick ratio which depicts that 'F' Calculated value (17.01) of SS between companies has been more than 'F' Table value (1.56) so null hypothesis has been rejected and alternate hypothesis is accepted which shows that there is significant difference in quick ratio between companies. So far as concern to years 'F' calculated value (1.56) of SS between years is less than the 'F' Table value (2.44) so null hypothesis has been accepted and alternate hypothesis has been rejected which shows that there is no significant difference in quick ratio during the study period.

Conclusion

The analysis of liquidity above current ratio and quick ratio under the study by sample of BSE 30 companies and result attained from 'F' test (ANOVA) at 5 percent level of significance it is concluded that there is significance difference between companies and between years in current ratio and quick ratio during the study period.

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❈   www.bseindia.com

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