Liquidity Analysis of Selected Logistic and Transport Companies of India

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Abstract:

Liquidity Management is gaining the serious attention in all over the world because of the current position of financial disorder and the business environment in the whole world economy. The promoters and managers are hired by the companies to make the suitable strategy for maintain the liquidity and increase the profitability position of the business. Liquidity is thought to maintain as well as it is the paying capacity of the business. It shows the ability of the business to survive. In this paper the comparative analysis for the liquidity position of 5 Transport and Logistic companies was done. The study covers the period of 10 years from 2010-11 to 2019-20. For this study the secondary data is used. The mean, standard deviation, coefficient of variation, ratio analysis and the ANOVA test techniques have been applied for analysing the data. This study may be the retiring plan to determine the liquidity management of the Transport and Logistic companies.

Keywords: Working Capital, Short term, Solvency, Transport and Logistics Company, Business Environment, Liquidity.

Introduction:

Industries are suffering from the uncontrollable situation in India. One of the possible purposes behind this industrial uncontrollable situation is the poor management of liquidity. A business must remain un-solidified and mollify its responsibilities when and when they are due in order to remain in operation and continue its operations as a continuing concern. The benefit and the liquidity goals are joined via a sound structural of the components of financial management. The capabilities are organized to achieve one or both of these goals.

Logistic and Transport industry is playing the very important role in the building of the economy in India. The industry is not only giving the more and more numbers of passengers and consignments but it is also creating the number of job opportunities for the people. The peoples are now trying the new and new things in the consumption of travelling or getting the

logistical services. Thus, the industry has the several problems for fighting in the competition era and developed their strategies for fighting against the difficulties and getting the advantageous situation.

Review of Literature:

Ghosh & Maji, 2003 have studied on 'The performance of Indian cement and tea companies' working capital management and during years 1993 to 2002. They measured the pace of achieving an objective level of success by a particular company during the period of research by using multiple regression and regulatory requirements as an acceptable level of competence of specific companies.

Bhayani, 2004 has completed Research on 'Working capital and profitability relationship of Gujarat Ambuja cement ltd' was carried out and showed that profitability is heavily affected by working capital and the relation between resource management and profitability of the industry in India.

Eljelly, 2004 has finished research Study on 'The effect of a sample of joint stock companies in Saudi Arabia' to examine the relationship between profitability and liquidity. The study shows which, as checked by the current ratio, the relevant negative relationship between the profitability of the company and its liquidity level.

J. P. Singh & Pandey, 2008 have studied on 'Working capital management in the profitability of hindalco industries ltd'. The efficient functioning of any business enterprise depends on the ideal level of fixed and current assets and on the value of working capital management as it directly affects profitability and liquidity. They noticed that the management of working capital had a major effect on Hidalgo Industries Limited's profitability.

This would be noted that, as aspects related to liquidity / working capital are provided by literature in relation to profitability, there are few researches that resolve the concerns of optimal use of current assets for liquidity management as well as trends in the accessibility of working capital and during course of the study.

Research Methodology:

- **Sample Size:** The 5 leading companies of Logistic and Transport sector such as Aegis Logistics Ltd, Container Corp. of India Ltd, Gateway Distriparks Ltd, Transport Corporation of India Ltd, VRL Logistics Ltd.

- **Selection of Data:** The source for the study is on the secondary basis. Annual Report with the financial statement is used as the secondary data.
- **Period of the Study:** The study is undertaken for the period of 10 years from 2010-11 to 2019-20
- **Study Hypothesis:**
  - H0: There is no difference between mean of current ratios of selected Transport & Logistic companies and trail the similar strategy to encounter the short-term obligation.

    H1: There is no difference between mean of current ratios of selected Transport & Logistic companies and don't trail the similar strategy to encounter the short-term obligation.
  - H0: There is no difference between mean of quick ratios of selected Transport & Logistic companies and follow the similar procedure to keep and meet the imperative cash requirement.

    H1: There is difference between mean of quick ratios of selected Transport & Logistic companies and don't follow the similar procedure to keep and meet the imperative cash requirement.
  - H0: There is no difference between the mean of Inventory Turnover Ratio of the selected Transport & Logistic companies and having the same type of management for inventory turnover.

    H1: There is difference between the mean of Inventory Turnover Ratio of the selected Transport & Logistic companies and don't having the same type of management for inventory turnover.
  - H0: There is no difference between the mean of debtor's turnover ratio of the selected Transport & Logistic companies and the effect of the same is on the working capital management of the entire firm.

    H1: There is difference between the mean of debtor's turnover ratio of the selected Transport & Logistic companies and the effect of the same is not on the working capital management of the entire firm.
  - H0: There is no different between the mean of dividend pay-out ratio of the selected Transport & Logistic companies and it considered the effect on working capital management by dividend pay-out ratio.

H1: There is different between the mean of dividend pay-out ratio of the selected Transport & Logistic companies and it not considered the effect on working capital management by dividend pay-out ratio.

- **Tools of Analysis:** In the order to analysis the liquidity management of the selected Transport & Logistic companies and measuring the liquidity ratio such as Current Ratio, Quick Ratio, Inventory Turnover Ratio, Debtors Turnover Ratio, Dividend Pay-out Ratio, etc. as the part of this arithmetic mean, coefficient of variance, minimum and maximum value, ANOVA test is applied for testing the hypothesis for drawing conclusions.
- **Limitations of the Study:**
  1. The study is based on the secondary data published by the company's annual report.
  2. Different ratio is calculated by the application of the different approaches.
  3. The study is specially based on the ratio calculation and analysis which has its own certain limitations.

Analysis and Findings:

- **Current Ratio:** This ratio stated the ability of the company / firm for meeting the instant and current obligations and to main the margin of safety for the creditors. If the current ratio is higher it is better for the trade payment / payable point of view by if we see from the management point of view it is not better and its shows the poor investment pattern and policy of the company / firm. 2:1 ratio is considered as satisfactory for the current ratio. Tandon committee has suggested the ideal current ratio for the banking financing is 1.33:1. The formula for calculating the current ratio of the company / firm is as below:

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

Current Ratio (In Times)					
Year	Aegis Logistics Ltd	Container Corp. of India Ltd	Gateway Distriparks Ltd	Transport Corp. of India Ltd	VRL Logistics Ltd
2011	2.254	5.771	2.015	1.091	0.452
2012	1.527	5.361	2.39	1.052	0.46
2013	0.919	5.173	2.01	1.086	0.433
2014	0.369	4.315	0.832	1.086	0.362

2015	0.876	3.537	1.319	1.256	0.418
2016	0.468	1.486	2.204	1.085	0.573
2017	0.605	2.638	1.671	1.192	0.637
2018	0.452	2.122	2.971	1.278	0.869
2019	0.465	0.258	1.141	1.33	1.141
2020	0.496	2.385	0.388	1.397	0.568
Mean	0.8431	3.3046	1.6941	1.1853	0.5913
Std. Deviation	0.60588	1.83046	0.77987	0.12285	0.24188
Variance	0.367	3.351	0.608	0.015	0.059
Minimum	0.37	0.26	0.39	1.05	0.36
Maximum	2.25	5.77	2.97	1.4	1.14

Table 1: Current Ratio of Selected Transport & Logistic Companies

Transport Corporation of India Ltd is shows the same policy and standards of Current Ratio as suggested by the Tandon Committee. In the current time the ideal of 2:1 is not relevant because of the availability of short-term requirements is fulfilled by the short-term loan. Container Corp. Of India Ltd is maintaining the very high Current Ratio which shows that the company has the poor investment policy and strategy which will lead towards the high working capital cost. The SD (Standard Deviation) of the Container Corp. of India is very high of 1.830 which reflects that the company is not following the standard control towards the outflow of the funds. The Current Ratio of VRL Logistic is representing the short-term solvency capacity of the company is so poor which shows that the inflow of the fund is less than the outflow of the fund. The mean of the Current Ratio is 0.5913 which represents that the company / firm has the negative working capital management and having the poor solvency capacity. The working capital of Gateway Distriparks Ltd is quite higher than the standards of Tandon Committee. Which reflect that the company has to make the corrections in their investment patterns and make the control over the inflow and outflow of the fund. The high current ratio will lead towards the high working capital cost.

Testing of Hypothesis:

Hypothesis 1

H0: There is no difference between mean of current ratios of selected Transport & Logistic companies and trail the similar strategy to encounter the short-term obligation.

H1: There is no difference between mean of current ratios of selected Transport & Logistic companies and don't trail the similar strategy to encounter the short-term obligation.

ANOVA Test for the Current Ratio			
Current Ratio			
	Sum of Squares	df	Mean Square
Between Groups	46.477	4	11.619
Within Groups	39.595	45	.880
Total	86.073	49	

Table 2: ANOVA Test for Current Ratio of Selected Companies

The *f*-Ratio value is 13.205. The *P*-Value is 0.869786. The result is *not significant* at the p<.05. So, we are rejecting H1 1 and accepting the H0 1.

- **Quick Ratio:** For measuring the instant debt paying ability of the company / firm the Quick Ratio is measured which is also be said to be the Acid Test Ratio. The ratio reflects the relationship between the quick assets with the current liabilities. 1:1 is considered the ideal ratio for the measurement of the Quick Ratio. For meeting the unexpected demand of working capital of the company / firm Quick Ratio must be measured. The reasonable standards and policy of the Quick Ratio is varying from Industry to Industry and Season to Season. The high liquidity ratio as compared to the current ratio is may signify under stocking while the lower liquidity ratio shows the over stocking. The formula for calculating the Quick Ratio is as below:

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory} - \text{Prepayments}}{\text{Current Liabilities}}$$

Quick Ratio (In Times)					
Year	Aegis Logistics Ltd	Container Corp Of India Ltd	Gateway Distriparks Ltd	Transport Corporation of India Ltd	VRL Logistics Ltd
2011	2.028	5.716	1.975	1.062	0.358

2012	1.296	5.297	2.351	1.02	0.355
2013	0.765	5.1	1.938	1.059	0.335
2014	0.237	4.258	0.808	1.06	0.301
2015	0.722	3.459	1.128	1.229	0.348
2016	0.375	1.364	2.089	1.027	0.46
2017	0.529	2.515	1.546	1.14	0.491
2018	0.373	2.011	2.948	1.212	0.658
2019	0.345	0.135	1.138	1.287	0.817
2020	0.39	2.15	0.386	1.358	0.403
Mean	0.706	3.2005	1.6307	1.1454	0.4526
Std. Deviation	0.55792	1.86413	0.77502	0.11933	0.16506
Variance	0.311	3.475	0.601	0.014	0.027
Minimum	0.24	0.14	0.39	1.02	0.3
Maximum	2.03	5.72	2.95	1.36	0.82

Table 3: Quick Ratio of selected Transport & Logistic Companies

The above table 3 shows that the Transport Corporation of India Ltd is following the standards and policy of the Liquidity Ratio. The Quick Ratio of Container Corp of India Ltd are very much high and most of the time it is seems to be 4:1. The high quick ratio indicate that the company is maintaining more Current assets in cash or equivalent of cash and purchasing the inventory form the suppliers on cash basis that's why the liabilities is low. The SD of Container Corp of India Ltd is seems higher with the value of 1.86 it means it has the good instability for the management of quick assets of the company. VRL Logistic is performing poor with the mean of 0.4526 during the study period of 10 years which shows the worst payback capacity.

Testing of Hypotheses:

Hypothesis 2

H0: There is no difference between mean of quick ratios of selected Transport & Logistic companies and follow the similar procedure to keep and meet the imperative cash requirement.

H1: There is difference between mean of quick ratios of selected Transport & Logistic companies and don't follow the similar procedure to keep and meet the imperative cash requirement.

ANOVA Test for the Quick Ratio			
Quick Ratio			
	Sum of Squares	df	Mean Square

Between Groups	47.354	4	11.838
Within Groups	39.855	45	.886
Total	87.209	49	

Table 4: ANOVA Test for Quick Ratio of Selected Companies

The *f*-Ratio value is 13.367. The *P*-Value is 0.868387. The result is *not significant* at the p<.05. So, we are rejecting H02 and accepting the H12.

- **Inventory Turnover Ratio:** The ratio is used to measure the number of times the finished good or the inventory turnover over during the given accounting period in the relation to the revenue from the business operations. The ratio will give the information about the investment in the investment is in the proper manner or not. High turnover ratio is better than of low. The high turnover will indicate the proper and well-organized business activities and it is also the sign for the under investment in inventory. The ratio is also used as the index for the profitability as the high turnover will indicate the more profit.

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Soled}}{\text{Average Inventory}}$$

Inventory Turnover Ratio (In Times)					
Year	Aegis Logistics Ltd	Container Corp Of India Ltd	Gateway Distriparks Ltd	Transport Corp. of India Ltd	VRL Logistics Ltd
2011	5	0.2	0	0.4	5.2
2012	5.6	0.2	0	0.5	6.5
2013	9.2	0.3	0	0.5	6.7
2014	14.7	0.4	0	0.4	10.3
2015	9.5	0.6	0	0.5	9.8
2016	6.7	1.4	0	0.5	11.6
2017	7.6	0.9	0	0.6	12
2018	6.7	0.9	0	0.6	13.9
2019	12.8	0.5	0	0.8	17.1
2020	9.4	0.9	0	1	16.6
Mean	8.72	0.63	0	0.58	10.97
Std. Deviation	3.10369	0.38887	0	0.18738	4.11827
Variance	9.633	0.151	0	0.035	16.96
Minimum	5	0.2	0	0.4	5.2
Maximum	14.7	1.4	0	1	17.1

Table 5: Inventory Turnover Ratio of selected Transport & Logistic Companies

Higher the ratio will reflect that company is performing well with the effective business operations with the low investment in the inventory. From the above table it shows that VRL Logistic Ltd and Aegis Logistic Ltd have performed well in several years of the study period with maintain the inventory turnover ratio above 10 times and the Average Ratio of both the companies is 10.97 and 8.72 respectively. The Average Ratio of Transport Corporation of India Ltd and Container Corp. of India Ltd is very low during the study period which reflects that the company has made more investment in inventory. Gateway Distriparks Ltd has not made any investment in the inventory.

Testing of Hypotheses:

Hypothesis 3

H0: There is no difference between the mean of Inventory Turnover Ratio of the selected Transport & Logistic companies and having the same type of management for inventory turnover.

H1: There is difference between the mean of Inventory Turnover Ratio of the selected Transport & Logistic companies and don't having the same type of management for inventory turnover.

ANOVA			
Inventory Turnover Ratio			
	Sum of Squares	df	Mean Square
Between Groups	1097.506	4	274.377
Within Groups	241.014	45	5.356
Total	1338.520	49	

Table 6: ANOVA Test for Inventory Turnover Ratio of Selected Companies

The *f*-Ratio value is 51.229. The *P*-Value is 0.805407. The result is *not significant* at the p<.05. So, we are rejecting H0 2 and accepting the H1 2.

- **Debtors Turnover Ratio:** The ratio indicated the relationship between the Net Credit Revenue of the business operation with the average trade receivables of the particular year. The ratio indicated the number of times the trade receivable is turn over in the relation to the revenue of the business in the particular year. It shows how quickly the

trade receivable is converted into the cash of the business. The higher ratio will indicate the efficiency of the business in the trade receivable.

$$\text{Debtors Turnover Ratio} = \frac{\text{Net Credit Sales}}{\text{Average Trade Receivable}}$$

Debtors Turnover Ratio (In Times)					
Year	Aegis Logistics Ltd	Container Corp of India Ltd	Gateway Distriparks Ltd	Transport Corporation of India Ltd	VRL Logistics Ltd
2011	12.345	195.416	29.515	6.431	15.016
2012	10.763	194.788	36.362	6.019	15.199
2013	12.421	174.366	22.573	5.867	16.153
2014	14.574	154.798	17.163	5.743	17.965
2015	11.871	148.036	16.229	5.918	19.481
2016	10.72	131.388	11.437	4.531	20.896
2017	11.9	116.634	9.475	5.526	23.943
2018	13.21	113.004	8.659	5.881	24.298
2019	17.317	88.539	8.809	5.772	25.955
2020	17.518	51.329	10.443	5.285	25.722
Mean	13.2639	136.8298	17.0665	5.6973	20.4628
Std. Deviation	2.45686	46.30387	9.60543	0.50775	4.32029
Variance	6.036	2144.049	92.264	0.258	18.665
Minimum	10.72	51.33	8.66	4.53	15.02
Maximum	17.52	195.42	36.36	6.43	25.96

Table 7: Debtors Turnover Ratio of selected Transport & Logistic Companies

From the above table it reflects that Container Corp. of India Ltd have the good receivable management in the company. The company have the ability of achieving the high debtor's ratio. The average ratio of the company is 136.82 which mean that the company has the average collection period of 12 days which can be remarkable. On the side VRL Logistics Ltd, Gateway Distriparks Ltd and Aegis Logistics Ltd has the mean of 20.46, 17.06 and 13.26 which reflect that the company has maintained the collection period of less than a month which is good for the company because the key success of the business is depend on working capital of the business. The performance of Transport Corporation of India Ltd is not good during the study period which indicates the poor revivable management of the company.

Testing of Hypotheses:

Hypothesis 4

H0: There is no difference between the mean of debtor's turnover ratio of the selected Transport & Logistic companies and the effect of the same is on the working capital management of the entire firm.

H1: There is difference between the mean of debtor's turnover ratio of the selected Transport & Logistic companies and the effect of the same is not on the working capital management of the entire firm.

ANOVA			
Debtors Turnover Ratio			
	Sum of Squares	df	Mean Square
Between Groups	121662.284	4	30415.571
Within Groups	20351.447	45	452.254
Total	142013.730	49	

Table 8: ANOVA Test for Debtors Turnover Ratio of Selected Companies

The *f*-Ratio value is 67.253. The *P*-Value is 0.802613. The result is *not significant* at the p<.05. So, we are rejecting H0 2 and accepting the H1 2.

- **Dividend Payout Ratio:** The ratio identifies that what percentage of amount is distributed among the shareholder of the company in the form if dividend in cash and what is remains in the business from the profit of the business operations. The company which distribute the lower portion from its profit in the form of the dividend to the shareholders are financially strong as likely for the growth of the business and expansion of the business. The comparison of this ratio with the seminar business company and over the period of time in the years will reflect the adequate or the dividend paid to the shareholders. From the investor point of view the rage of 35% to 55% is measured healthy and suitable. It means the company has to distribute its half earning among the shareholders as dividend means the business is well established and going well.

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend Per Share (DPS)}}{\text{Earnings Per Share (EPS)}}$$

Dividend Payout Ratio (In Times)					
Year	Aegis Logistics Ltd	Container Corp of India Ltd	Gateway Distriparks Ltd	Transport Corporation of India Ltd	VRL Logistics Ltd
2011	6.15	4.09	1.26	7.12	2.15
2012	3	4.13	0.76	7.14	1.67
2013	1.11	4.11	0.49	6.53	1.67
2014	4.37	4.01	1.06	6.77	2.67
2015	1.79	3.64	1.29	4.98	2.28
2016	2.84	2.91	0.79	8.34	1.93
2017	3.55	2.51	0.5	8.47	0
2018	2.12	6.65	2.03	9.25	2.91
2019	0.52	0.66	0.62	8.22	1.11
2020	0.52	0.66	0.62	8.22	1.11
Mean	2.597	3.337	0.942	7.504	1.75
Std. Deviation	1.78309	1.77992	0.48111	1.24024	0.85374
Variance	3.179	3.168	0.231	1.538	0.729
Minimum	0.52	0.66	0.49	4.98	0
Maximum	6.15	6.65	2.03	9.25	2.91

Table 9: Dividend Payout Ratio of selected Transport & Logistic Companies

There is two aspect of assessing the dividend payout ratio, one the return on the investment to the shareholders of the company and the other is the relation of the company profit with the liquidity management of the company. Here in this study we are considering the relation of the profit in the company liquidity management. The Transport Corporation of India Ltd has the high dividend payout ratio which indicate that the company need to make the proper management for the retain earning. VRL Logistics Ltd, Container Corp of India Ltd and Aegis Logistics Ltd has the mean of 1.75, 3.337 and 2.597 which shows that the company has the suitable and healthy dividend payout ratio. Normally when the company has no requirement of the surplus fund it reduces it cost of capital. Gateway Distriparks Ltd is paying very low rate of the dividend to its shareholder it means the company has the planning in the expansion of the business or to maintain the liquidity in the business to get the short-term opportunities in the market.

Testing of Hypotheses:

Hypothesis 5

H0: There is no different between the mean of dividend pay-out ratio of the selected Transport & Logistic companies and it considered the effect on working capital management by dividend pay-out ratio.

H1: There is different between the mean of dividend pay-out ratio of the selected Transport & Logistic companies and it not considered the effect on working capital management by dividend pay-out ratio.

ANOVA			
Dividend Payout Ratio			
	Sum of Squares	df	Mean Square
Between Groups	261.045	4	65.261
Within Groups	79.615	45	1.769
Total	340.659	49	

Table 10: ANOVA Test for Dividend Payout Ratio of Selected Companies

The *f*-Ratio value is 36.877. The *P*-Value is 0.81446. The result is *not significant* at the p<.05. So, we are rejecting H0 2 and accepting the H1 2.

Conclusion:

The study is carried out to compare the liquidity position of Aegis Logistics Ltd, Container Corp of India Ltd, Gateway Distriparks Ltd, and Transport Corporation of India Ltd and VRL Logistics Ltd with the help of various ratios. Transport Corporation of India Ltd is shows the same policy and standards of Current Ratio as suggested by the Tandon Committee. In the current time the ideal of 2:1 is not relevant because of the availability of short-term requirements is fulfilled by the short-term loan. Container Corp. Of India Ltd is maintaining the very high Current Ratio which shows that the company has the poor investment policy and strategy which will lead towards the high working capital cost. The Transport Corporation of India Ltd is following the standards and policy of the Liquidity Ratio. The Quick Ratio of Container Corp of India Ltd are very much high and most of the time it is seems to be 4:1. The high quick ratio indicate that the company is maintaining more Current assets in cash or equivalent of cash and purchasing the inventory form the suppliers on cash basis that's why the liabilities is low. VRL Logistic Ltd and Aegis Logistic Ltd have performed well in several years of the study period with maintain the inventory turnover ratio above 10 times and the Average Ratio of both the companies are 10.97 and 8.72 respectively. Container Corp. of India Ltd has the good receivable management in the company. The company have the ability of achieving the high debtor's ratio. The average ratio of the company is 136.82 which mean that the company has the average collection period of 12 days which can be remarkable. On the side VRL Logistics Ltd, Gateway Distriparks Ltd and Aegis Logistics Ltd has the mean of 20.46, 17.06 and 13.26 which reflect that the company

has maintained the collection period of less than a month. The Transport Corporation of India Ltd has the high dividend payout ratio which indicate that the company need to make the proper management for the retain earning. VRL Logistics Ltd, Container Corp of India Ltd and Aegis Logistics Ltd has the mean of 1.75, 3.337 and 2.597 which shows that the company has the suitable and healthy dividend payout ratio.

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