



Working Capital Management of Larsen & Turbo

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ABSTRACT

The goal of working capital management is to ensure that the firm is able to continue its operations and that it has sufficient cash flow to satisfy both maturing short-term debt and upcoming operational expenses. The current study has concentrated on analysing the working capital management of Larsen & Turbo Company based on their liquidity, profitability positions and cash flow statements over a decade. The study is based on secondary data collected from the financial reports published in the official websites of the company for a period of thirteen years from 2003-04 to 2015-16. The data have been analyzed using the financial and statistical tools namely Ratio Analysis, cash flow and Correlation Analysis. It has been found that the working capital management of Larsen & Turbo is good and the company has to improve its turnover ratios in the future.

Keywords-- Cash flow statement, Larsen & Turbo, Working capital management

Working capital frequently changes its form and is sometimes also referred to as circulating capital. According to Gretsenberg: “circulating capital means current assets of a company that are changed in the ordinary course of business from one form to another.”

Objectives of working capital management

The main objectives of working capital management are:

- **Maintaining the working capital operating cycle and to ensure its smooth operation:** Maintaining the smooth operation of the operating cycle is essential for the business to function. The operating cycle here refers to the entire life cycle of a business. From the acquisition of the raw material to the smooth production and delivery of the end products – working capital management strives to ensure smoothness, and it is one of the main objectives of the concept.
- **Mitigating the cost of capital:** Minimizing the cost of capital is another very important objective that working capital management strives to achieve. The cost of capital is the capital that is spent on maintaining the working capital. It needs to be ensured that the costs involved for maintenance of healthy working capital are carefully monitored, negotiated and managed.
- **Maximising the return on current asset investments:** Maximising the return on current investments is another objective of working capital management. The Rate of Interest on currently invested assets should be greater than the weighted average cost of the capital so that wealth maximization is ensured.

I. INTRODUCTION

Any firm, from time to time, employs its short-term assets as well as short-term financing sources to carry out its day to day business. It is this management of such assets as well as liabilities which is described as working capital management. Working capital management is a quintessential part of financial management as a subject. It can also be compared with long-term decision-making the process as both of the domains deal with the analysis of risk and profitability.

Working capital is formally arrived at by subtracting the current liabilities from current assets of a firm on the day the balance sheet is drawn up. Working capital is also represented by a firm's net investment in current assets necessary to support its everyday business.

II. STATEMENT OF THE PROBLEM

In order to function in an efficient and effective manner, every company needs to be aware of its liquidity and financial conditions. The working capital management of a company can be ascertained by analysing its financial statements. This way, it is possible to identify the trends and relationships between financial statement items. There is a need to strike a balance between profitability and liquidity which in turn protects the interest of creditors and investors. The industries can focus on attaining a higher level of performance by showing current financial position of the company. Such evaluations are also useful in reforming and improving weaknesses which is done through recognition of the strengths of performed activities. Thus, the study focuses on analysis of the working capital management of last thirteen years of the company.

III. SCOPE OF STUDY

The study aims to analyse the working capital management of last thirteen years of Larsen & Toubro starting from the year 2003-2004 to 2015-2016. One of the main motives of taking up a 13 years data collection was to observe all the changes that have taken place in the firm over this period. Various financial tools were used to analyse the data including ratios, correlation, cash flow, trend analysis. The above mentioned tools help in ascertaining the liquidity, profitability and solvency position of the company.

IV. OBJECTIVES OF THE STUDY

- To study the liquidity position of the concern through various ratios.
- To compare the performance of working capital management through ratios for a particular year with previous year.
- To correlate the ratios

V. RESEARCH METHODOLOGY

Research is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge.

VI. SELECTION OF ORGANISATION FOR STUDY

Larsen & turbo selected for study based on one of the leading organisation in the country in the business of infrastructure and engineering industry

VII. SAMPLING TECHNIQUE

Purposive sampling has been adopted to select the sample unit for the study.

VIII. SOURCE OF DATA

Secondary source has been used for the study. The data has been collected from company's website.

IX. PERIOD OF STUDY

The period of study is considered from 2003-2004 to 2015-2016.

X. TOOLS USED

Various financial and statistical tools such as Ratios, Correlation, Trend analysis and Cash flow analysis are used for study.

XI. LIMITATIONS OF THE STUDY

- Only quantitative financial data have been used for the performance evaluation of sample units.
- Only Thirteen years period have been taken with limited number of financial indicators.

XII. REVIEW OF THE LITERATURE

Sheela Christina (2011)¹ in her article on "A Study on Financial Performance of Wheels India Limited-Chennai Interdisciplinary" the study had an Analytical type of research design supplemented by secondary data collection method. For this purpose the researcher took the past five years' data and also checked out for the validity and reliability before conducting the study. The researcher used the financial tools, namely ratio analysis, comparative balance sheet and DuPont analysis and also statistical tools such as trend analysis and correlation. Profitability ratios indicated that there was a decrease in the profit level, utilization of fixed assets and working capital in the last financial year. Thus the company could take necessary steps to improve sales and profit. Finally, the study revealed that the financial performance was satisfactory.

Dr. Vivek Sharma" (2011)² in his study on **Liquidity, Risk and Profitability Analysis: A Case Study of Maruti India Limited**", study based on Liquidity, Risk and Profitability Analysis: A Case Study of Maruti India Limited. The objectives of the study were to examine the association between liquidity and risk; and to test the correlation between profitability and risk. The study was concerned with the ten years data of Maruti Suzuki India Ltd. for a period of (2001 - 2010). The data was of secondary nature and was obtained from the published annual reports of Maruti Suzuki India Ltd. The

collected data had been analyzed through various liquidity and profitability ratios and drawing out the risk factor. Further, t test had been applied to test the hypothesis. He reported that the Trade off between risk and profitability could be made by calculating the risk factor. He used the following formula:

$$R_k = \{(E_j + L_j) - A_j\} / C_j$$

Where, R_k = Risk factor, E_j = Equity + Retained Earnings, L_j = Long term Loans,

A_j = Fixed Assets, C_j = Current Assets

Further, the liquidity position of the company was fluctuating but it was acceptable. The risk factor calculated was a needle of the working capital management and the policy adopted. The company was timely changing its policies for better results but at higher risk. The profitability was increasing at good pace showing the efficiency of the company. Thus, it could be concluded that the company was earning good profit with moderate liquidity and at higher risk.

Harsh Pratap Singh, (2014)³ in his research paper on "Working capital management: a literature review and research agenda" The purpose of this paper is to review research on working capital management (WCM) and to identify gaps in the current body of knowledge, which justify future research directions. WCM has attracted serious research attention in the recent past, especially after the financial crisis of 2008. Design/methodology/approach – Using systematic literature review (SLR) method, the present study reviews 126 articles from referred journal and international conferences published on WCM. Findings – Detailed content analysis reveals that most of the research work is empirical and focuses mainly on two aspects, impact of working capital on profitability of firm and working capital practices. Major research work has concluded that WCM is essential for corporate profitability.

XIII. HISTORY OF THE COMPANY

Larsen & Toubro (L&T) is a technology, engineering, construction and manufacturing company.

L&T is one of the largest and most respected companies in India's private sector. Larsen & Toubro Limited is the biggest legacy of two Danish Engineers, who built a world-class organization that is professionally managed and a leader in India's engineering and construction industry. It was the business of cement that brought the young Henning Holck-Larsen and S.K. Toubro into India. L&T arrived on Indian shores as representatives of the Danish engineering firm F L Smidth & Co in connection with the merger of cement companies that later grouped into the Associated Cement Companies.

Together, Holck-Larsen and Toubro, founded the partnership firm of L&T in 1938, which was converted into a limited company on February 7, 1946. Today, this has metamorphosed into one of India's biggest success stories. The company has grown from humble origins to a large conglomerate spanning engineering and construction. ECC was conceived as Engineering Construction Corporation Limited in April 1944 and was incorporated as wholly owned subsidiary of Larsen & Toubro Limited. L&T's founders Holck – Larsen and Toubro laid the foundation for ECC.

L&T has today emerged as India's leading construction organization. The companies first office in Mumbai (Bombay) was so small that only one of the partners could use the office at a time. In the early years, the company represented Danish manufacturers of dairy equipment for a modest retainer. But with the start of the Second World War in 1939, imports were restricted, compelling them to start a small work-shop to undertake jobs and provide service facilities.

Germany's invasion of Denmark in 1940 stopped supplies of Danish products. This crisis forced the partners to stand on their own feet and innovate. They started manufacturing dairy equipment indigenously. These products proved to be a success, and L&T came to be recognised as a reliable fabricator with high standards.

XIV. ANALYSIS AND INTERPRETATION

TABLE 1 CURRENT RATIO

Year	CURRENT ASSETS	CURRNT LIABILITES	CURRENT RATIO
2015-16	105,454.92	89,355.19	1.1801768
2014-15	94,989.85	77,707.24	1.222407
2013-14	86,117.24	68,753.97	1.252542
2012-13	75,693.26	53,875.31	1.404971
2011-12	64,135.03	46,162.28	1.389338
2010-11	38,540.77	52,580.73	0.73298
2009-10	27,281.79	41,709.02	0.65422
2008-09	32,261.37	34,007.90	0.9486
2007-08	23,693.03	25,688.42	0.922323
2006-07	14,598.55	16,713.58	0.8734

2005-06	9,452.72	11,643.10	0.8118
2004-05	7,729.50	10,121.96	0.763637
2003-04	4,995.03	7,867.29	0.634911

The standard current ratio is 2:1. The current ratio for thirteen years from 2003- 2004 to 2015- 2016 are calculated and presented in the above table. From the above table it is analyzed that the current ratio less than 2 in almost all the years. Highest current ratio of 1.38 is found in the year 2011-12 and lowest current ratio of 0.634

is found in 2003-04. it is clear that the company has relatively low current ratio which is the indication that the company assets are highly rigid and does not have the ability to pay its current obligations in time as when they are due.

TABLE 2 QUICK RATIO

Year	QUICK SSETS	CURRENT LIABILITES	CURRENT RATIO
2015-16	100,092.97	89,355.19	1.1201696
2014-15	88,471.66	77,707.24	1.138525
2013-14	80,589.78	68,753.97	1.172147
2012-13	70,523.79	53,875.31	1.309019
2011-12	59,905.16	46,162.28	1.297708
2010-11	35,500.50	52,580.73	0.675161
2009-10	24,903.56	41,709.02	0.597193
2008-09	25,155.59	34,007.90	0.739698
2007-08	18,674.03	25,688.42	0.726944
2006-07	10,920.58	16,713.58	0.653396
2005-06	6,975.37	11,643.10	0.599099
2004-05	5,295.30	10,121.96	0.52315
2003-04	3,027.81	7,867.29	0.384861

The standard quick ratio is 1:1. The quick ratio for thirteen years from 2003-2004 to 2015-2016 are calculated and presented in the above table. From the above table it is analyzed that the quick ratio is less than 1 from 2003-2004 to 2010-2011. From 2011-2012 to 2015-2016 it shows a higher value which is more than 1. Highest

quick ratio 1.309 is found in the year 2012-2013 and lowest ratio 0.384 found in the year 2003-2004. It is clear that the company has relatively high quick ratio in the last five years which 2011-2012 to 2015-2016 which does have the ability to pay its current obligation for past five years alone.

TABLE 3 WORKING CAPITAL TURNOVER RATIO

Year	SALES	NET WORKING CAPTIAL	WORKING CAPITAL TURNOVER RATIO
2015-16	60,415.00	16,099.73	3.7525474
2014-15	57,558.07	17,282.61	3.330404
2013-14	57,163.85	17,363.27	3.29228
2012-13	61,470.86	21,817.95	2.817444
2011-12	53,737.78	17,972.75	2.989959
2010-11	44,296.11	-14,039.96	-3.155002
2009-10	37,187.50	-14,419.23	-2.5790
2008-09	34,249.85	-1,746.53	-19.6102
2007-08	25,280.49	-1,995.39	-12.6694
2006-07	17,983.37	-2,115.03	-8.50265
2005-06	15,030.81	-2,190.38	-6.86219
2004-05	13,404.27	-2,392.46	-5.60271
2003-04	9,917.52	-2,872.26	-3.45286

Working Capital of a concern is directly related to Sales. Working Capital Turnover Ratio indicates the velocity of the utilization of the Net Working Capital. The Working Capital shows a negative value from the year 2003-2004 to 2010-2011, this shows the inefficient utilization of Working Capital of the Company. The

Working Capital shows a positive value from the year 2011-2012 to 2015-2016, this shows the efficient utilization of Working Capital of the Company. Hence the Working Capital of the Company is utilized in the efficient way.

TABLE 4 INVENTORIES TO TURNOVER RATIO

Year	INVENTORIES	SALES	INVVENTORIES TO SALES RATIO
2015-16	5,361.95	60,415.00	0.088752
2014-15	6,518.19	57,558.07	0.1132465
2013-14	5,527.46	57,163.85	0.096695
2012-13	5,169.47	61,470.86	0.084096
2011-12	4,229.87	53,737.78	0.078713
2010-11	3,040.47	44,296.11	0.06863147
2009-10	2,378.23	37,187.50	0.063952403
2008-09	7,105.78	34,249.85	0.207469
2007-08	5,019.00	25,280.49	0.198533
2006-07	3,677.97	17,983.37	0.204521
2005-06	2,477.35	15,030.81	0.164818
2004-05	2,434.20	13,404.27	0.181599
2003-04	1,967.22	9,917.52	0.198358

Inventory to turnover ratio for thirteen years from 2003-2004 to 2015-2016 are been calculated in the above table. From the above table it is concluded that Inventory to turnover ratio is fluctuating in these period. Highest

inventory to turnover ratio is 0.207469 in the year 2008-2009 and the lowest ratio is 0.063952403 is 2009-2010. Inventory to turnover ratio is decreasing it state that it has to improve the inventories in future.

TABLE 5 CURRENT LIABILITIES TO NET WORTH RATIO

Year	NET WORKING CAPITAL	CURRENT LIABILITES	CURRENT LIABILITIES TO NET WORTH RATIO
2015-16	60,415.00	16,099.73	0.1801768
2014-15	57,558.07	17,282.61	0.222407
2013-14	57,163.85	17,363.27	0.252542
2012-13	61,470.86	21,817.95	0.404971
2011-12	53,737.78	17,972.75	0.389338
2010-11	44,296.11	-14,039.96	-0.267017213
2009-10	37,187.50	-14,419.23	-0.345776434
2008-09	34,249.85	-1,746.53	-0.05136
2007-08	25,280.49	-1,995.39	-0.07768
2006-07	17,983.37	-2,115.03	-0.12655
2005-06	15,030.81	-2,190.38	-0.18813
2004-05	13,404.27	-2,392.46	-0.23636
2003-04	9,917.52	-2,872.26	-0.36509

Current liabilities to Net worth ratio for thirteen years given from 2003-2004 to 2015-2016 are been calculated in the above table. Highest current liabilities to

net worth ratio are 0.404 in the year 2012-2013. Lowest ratio is -0.345 in the year 2009-2010. The ratio does not satisfy the rule of thumb that is 0.6. It is unsatisfied.

TABLE 6 DEBTORS TURNOVER RATIO

Year	NET CREDIT ANNUAL SALES	AVERAGE SUNDRY DEBTORS	DEBTOR TURNOVER RATIO
2015-16	59,779.61	35,989.94	1.6610089
2014-15	57,017.41	30,089.37	1.894935
2013-14	56,598.92	26,384.55	2.154145
2012-13	60,873.26	23,014.91	2.605713
2011-12	53,170.52	20,405.36	2.605713
2010-11	43,905.87	3,040.27	14.4413777
2009-10	36,870.19	2,378.23	15.50320617
2008-09	33,856.54	7,105.78	4.764648
2007-08	24,946.11	5,019.00	4.970335
2006-07	17,645.29	3,677.97	4.797562
2005-06	14,776.95	2,477.35	5.964821
2004-05	13,189.71	2,434.20	5.418499
2003-04	9,645.32	1,967.22	4.903021

Debtors Turnover Ratio indicates the number of times the debtors are turned over during the year. From the above table, in the year 2015-2016 shows a lower value of 1.66100, which implies inefficient management of debtors/sales and less liquid debtors. And in the year 2009-

2010 shows a higher value of 15.5032, which implies efficient management of debtors/sales or more liquid are the debtors. Therefore, this implies inefficient management of debtor's turnover in the last five years.

TABLE 7 CREDITORS TURNOVER RATIO

Year	NET CREDIT ANNUAL PURCHASES	AVERAGE SUNDRY CREDITORS	CREDITORS TURNOVER RATIO
2015-16	9,974.43	29,390.97	0.3393706
2014-15	8,352.87	24,858.99	0.33601
2013-14	9,845.79	20,870.58	0.471754
2012-13	15,243.62	18,812.03	0.810312
2011-12	14,084.35	16,716.53	0.84254
2010-11	11,208.01	14,687.72	0.763087
2009-10	9,593.53	11,699.59	0.819988
2008-09	9,316.38	12,051.19	0.773067
2007-08	8,256.46	9,629.84	0.857383
2006-07	5,320.98	6,373.53	0.834856
2005-06	4,510.78	3,553.40	1.269426
2004-05	5,211.98	3,072.85	1.696139
2003-04	3,729.06	0	0

Creditors' turnover ratio indicates credit purchase and incurs short term liabilities. From the above table, 2004-2005 shows the higher value of 1.69 which indicates better favorable creditor's turnover and in the year 2014-

2015 shows the value of 0.3 which indicates less favorable creditor's turnover. Hence the creditor's turnover ratio is less favorable in the recent years to the firm.

TABLE 8 CASH FLOW ANALYSIS

Month & Year	Net Cash Flow From Operating Activities	Net Cash Used In Investing Activities	Net Cash Used From Financing Activities	Net Inc/Dec In Cash And Cash Equivalents	Cash And Cash Equivalents Begin of Year	Cash And Cash Equivalents End Of Year
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March2016	6,128.83	3,255.72	-522.06	-2,567.21	166.45	1,591.46	1,757.91
March2015	6,344.06	3,143.13	-1,909.24	-1,436.55	-202.66	1,794.12	1,591.46
March2014	6,344.06	3,143.13	-1,909.24	-1,436.55	-202.66	1,794.12	1,591.46
March2013	6,679.41	1,047.24	-1,214.32	504.05	336.97	1,457.15	1,794.12
March2012	6,679.41	1,047.24	-1,214.32	504.05	336.97	1,457.15	1,794.12
March2011	5568.56	3833.3	-2409.98	-1124.84	298.48	1431.87	1730.35
March2010	5880.67	5482.75	-6071.73	1245.56	656.58	775.29	1431.87
March2009	3940.41	1478.57	-3308.53	1640.79	-189.17	964.46	775.29
March2008	3155.47	1945.24	-5241.89	3166.68	-129.97	1094.43	964.46
March2007	2004.89	2130.45	-1588.17	-31.05	511.23	583.2	1094.43
March2006	1383.4	1369.25	-1326.3	-287.77	-244.82	828.02	583.2
March2005	1286.14	112.01	236.28	104.46	452.75	375.27	828.02
March2004	768.83	330.41	200.21	-475.79	54.83	320.44	375.27

Increase in Net Profit before Extraordinary Items and Tax increases operating activities of the company. The highest value is 6679.41 in the years 2012 and 2013, and the lowest value is 768.83 in the year 2004. It is absorbed that there is increase in cash flow which regulates regular flow of goods. The highest value is 5482.75 in the year 2010, and the lowest value is 112.01 in the year 2005. It is recognized, that the Net Cash Used In Investing Activities shows a positive value only for 2004 and 2005, and thereafter shows only a negative value from 2006 to 2016 which implies failure in investing of shares or debentures in other companies. The highest value is 236.28 in the year 2005, and the lowest value is -522.06 in the year 2016. Net Cash Used from Financing Activities has highest value of 3166.68 in the year 2008 and the lowest value -2567.21 in the year 2016. Net Increase/ decrease in cash and cash equivalents shows a negative in few years which implies inadequate maintenance of cash in the years

2006,2008,2009,2014 and 2015. In the rest of the years shows a fluctuating positive value which implies adequate maintenance of cash requirement. The highest value is 656.58 in the year 2010; the lowest value is -129.97 in the year 2008. The highest value of Cash And Cash Equivalents Begin of Year is 1794.12 in the years 2014 and 2015, and the lowest value is 320.44 in the year 2004. The highest value of Cash And Cash Equivalents End Of Year is 1794.12 in the years 2012 and 2013, the lowest value is 375.27 in the year 2004.

XV. CORRELATION ANALYSIS

HYPOTHESIS: "There exists no significant correlation between current ratio and quick ratio during the study period."

TABLE 9 CORRELATION OF CURRENT RATIO AND QUICK RATIO

		CR	QR
CR	Pearson Correlation	1	.977**
	Sig. (2-tailed)		.000
	N	13	13
QR	Pearson Correlation	.977**	1
	Sig. (2-tailed)	.000	
	N	13	13

** . Correlation is significant at the 0.01 level (2-tailed).

From the above table, the Pearson correlation value is .977 and the significant value is .000. As the significant value is less than .01 there exist positive significant correlation between current ratio and quick ratio. Hence, the hypothesis is rejected.

HYPOTHESIS: "There exists no significant correlation between evolution of inventory management and evolution of receivables management during the study period."

TABLE 10 CORRALATION OF DEBTORS TURNOVER AND CREDITORS TURNOVER RATIO

		Debtors Turnover ratio	Creditors turnover ratio
Debtors Turnover ratio	Pearson Correlation	1	-.366
	Sig. (2-tailed)		.218
	N	13	13
Creditors turnover ratio	Pearson Correlation	-.366	1
	Sig. (2-tailed)	.218	
	N	13	13

From the above table, the Pearson correlation value is -.366 and the significant value is .218. As the significant value is more than .01 there exist a negative significant correlation between Debtors turnover ratio and Creditors turnover ratio. Hence the hypothesis is accepted.

XVI. SUGESSTIONS

1. Larsen & Turbo has relatively low current ratio which is the indication that company assets are highly rigid and does not have the ability to pay its current obligation in time as when they are due. L&T should concentrate on the current assets to improve current ratio.
2. Larsen & Toubro's debtors' turnover ratio implies inefficient management in the last five years. Therefore they should improve more on sales / debtors of the company.
3. Inventory to turnover ratio of Larsen & Turbo has been fluctuating in the period from 2003-2004 to 2015-2016. It does not have standard values. Therefore they should improve the inventories in future.
4. Current liabilities to net worth ratio of Larsen & Turbo has an increase on the ratio for the years 2003-2004 to 2015-2016. It does not exceed rule of thumb 0.6. Therefore, they should maintain the same level to avoid pressure of payment in future.

XVII. CONCLUSION

Tools observed in the study it can be concluded that Larsen & Toubro is maintaining a good Working Capital Management base India's number one power major is financially well equipped to raise the fund required for its land Capacity and expansion programme. The internal accruals of the company would be sufficient to finance the equity component for the new projects. Given its low gearing and strong credit rating, the company is well positioned to raise the required borrowings without going for any other following Public Offering. The before in conclusion we can say that Larsen & Toubro Ltd. is financially capable enough to carry out its planned Capacity and expansion programme, would continue to enjoy the top most position in the power sector for a long time in the future.

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