

Available online @ [www.iaraindia.com](http://www.iaraindia.com)  
 RESEARCH EXPLORER-A Blind Review & Refereed Quarterly International Journal  
 ISSN: 2250-1940 (P) 2349-1647 (O)  
 Impact Factor: 3.655 (CIF), 2.78 (IRJIF), 2.62 (NAAS)  
 Volume VIII, Issue 27  
 April – June 2020  
 Formally UGC Approved Journal (63185), © Author

## **A STUDY ON WORKING CAPITAL MANAGEMENT IN NLC INDIA LIMITED AT NEYVELI**

**T.S.KUMAR**

Assistant professor of Business Administration  
 Jawahar Science College, Neyveli.

&

**M.NANDHINI**

Final Year M.Com Student, PG Department of Commerce,  
 Jawahar Science College, Neyveli – 607 803

### *Abstract*

Analysis of Working Capital Management is the process of identifying the Operational Efficiency and measure the firm establishing relationship between balance sheet and profit and loss account. The study was undertaken in the NLC India Limited with the view to have an insight in the Working Capital Management, Ratio analysis of India Limited.

Results reveal that unfavourable status of current working capital management system, and the same should be thoroughly rechecked using proper cost control and taking remedial measures. We hope that the management of the company can do wonders in working capital management and the coming years will reveal an entirely different picture showing favorable results.

**Keywords:** Working Capital Management, NLC India Limited Working Capital management, Liquidity Management, Inventory Management, Debtor turnover Ratio.

### **INTRODUCTION**

Working capital is a financial tool to measure the operating liquidity available to organisations or business, working capital is considered as a part operating capital gross working capital is equal to current assets. Working capital is measured as current assets - current liabilities, if current assets are compared with current liability is very less, the organization has working capital deficiency, it's also called as working capital deficit.

A company can be empowered with assets and profitability but may fall short of liquidity if its assets cannot be readily converted into cash. Positive working capital is required to ensure that firm is able to continue its operation and it has a sufficient fund to satisfy to meets its current obligation and future operational expenses. The management of working capital involved managing the accounts receivables and payable, managing the inventories and cash.

Most of the organisations have a large amount cash invested in working capital, as well as substantial amount of Short term payables as a course of financing. Organisations have an optimal level working capital that maximizing their values. Large inventory and generous trade credit policy may lead to higher sales and reduces risk of a stock out.

Based on the previous studies related to working capital management in NLC India Limited are no sufficient, the present study is initiated on measuring the working capital management of NLC India limited in past five years through various statistical tools.

#### **PROFILE OF NLC INDIA LIMITED**

NLC India Limited formerly Neyveli Lignite Corporation (NLC) is a company in the biggest opencast mining sector and thermal power generation in India. A Navratna company under the ministry coal in India since 1956 – more than 60 Years of its glorious existence, its annually produces about 30 million tonnes of lignite from opencast mines at Neyveli in the state of Tamil Nadu and Barsingar in Rajasthan State. the lignite is used at pithead thermal power station of 3640 MW installed capacity to produce electricity and its joint venture has a 1000 MW thermal power station using coal. Lately is it diversified into renewable energy production and installed Solar and Windmills plants to produce electricity photovoltaic (PV) cells and wind mills. The present power generation capacity is 3640 MW ( lignite), 1000 MW (Coal),1352.56 MW (Solar),51 MW (Wind) Totally 6043.56 MW

#### **REVIEW OF LITERATURE**

**Hyon – Han Shin an LUC Soemen (1998)** The study is on the efficiency of the working capital management and business profitability. There are 58 companies are taken for the research and period for the study is 1975 to 1994, study found that there is a strong negative relationship if firm having long Net Trade

Cycle and its profitability. In other side short Net Trading cycle created the risk. It has also found measuring liquidity differently, need to be maintain appropriate current ratio having positive relation with profitability.

**Singh O. N. (1999)** The research discussed the needs of credit to the farmers or agriculture segment and another need is having proper system of working capital finance in agriculture segment in line and commerce finance, with some changes. Research advised a system which is quite similar useful and fulfill the need of both farmers as well as the bankers. Main aim of the study is to make farmers strong in terms of capital.

**RaoGovinda D. and Rao P. M. (1999)** Study believes that management of working capital is a constant process need of finance proper observation or monitoring and revising the relationship of all variables and give conclusion. This is a proper indication to the manager.

**Dutta (2000)** Author Dutta has done study on “Working Capital Management of Horticulture Industry in Humachal Pradesh” that was a case study of Himachal Pradesh Horticulture Produce Marketing and Processing Corporation for the stage 1991 to 1998.

**Jain P. K. and YadavSurendra S. (2001)** That was a study of corporate Working capital management related practices in India, Singapore and Thailand. This study tried to understand the relationship of working capital management and current assets and current liabilities. In other hand, authors have revealed the analysis liquidities ratios like current assets and current liabilities.

**Parvathy (2004)** Observation of study has shown that in increasing in mode, but net profit has in decreasing in trend because operating cost is high. The others found out and thrown light on the importance of cost of production. Other side found that the return on network and

the return to total assets were on the decreasing trend.

**Filbeck Greg and Krueger Thomas M. (2005)** As per the article, need to study internal working capital management and working capital performance. That article was published in CFO magazines. As per the findings of this article macro economic factors, interest rates, competition, etc. having impact on working capital management.

**Meszek Wieslaw and Polewski Marcin (2006)** By observation of selected construction companies at area of working capital management and working capital policy formation and strategies implication. The Study was based to develop the controlling methodology for working capital. here, study that was going on construction company having the specific factors are to be consider like functional factors and market requirements which make working capital area wide and more focused.

**Chowdhury Anup and Amin Md. Muntasir (2007)** That was the study carried on pharmaceutical companies listed in Dhanka Stock Exchange. Observation of the study based on the financial management, according to this major problem found in area of working capital management. It is true that working capital effects go on business performance and growth.

**Arindam Ghosh (2007)** That was the study carried on Cement Industry of India specific area of study was "Working Capital Management and its practices and impact on profitability. Main aim of the study is to evaluate efficiency of working capital management of selected cement companies in India during the period 1992 to 2001. For the study targeted 20 large cement companies avail in India having very large portion in cement industry of India.

**Samiloglu F. and Demirgunes K. (2008)** The objective of the study is to examine effect of working capital management on firm's prosperity. The study carried with

manufacturing companies listed in Istanbul Stock Exchange (ISE) the tenure for the study is 1989 to 2007. For the study multi regression statistical method is used.

**Virani Varsha (2008)** It was a comparative study in CADILA COMPANY This study has been done with certain objectives first is to examine financial performance and second one is to examine profitability trend and at the last to find out assets operational model and evaluate liquidity position of the company. To achieve these goals used two classy analytical tools i.e. ratio analysis and correlation analysis. The study shows relationship between different ratios.

**Ramachandran Azhagaiah and Janakiraman Muralidharan (2009)** In this study author examine the relationship among working capital management proficiency and earnings before interest and tax. The study was made on Paper industry in India during 1997 to 2005

**Rao and Rao&Ramachandran (2010)** Main aim of his study is to evaluate the trends and parameters of effectiveness of working capital and its utilization in terms of volume of the firms of cotton textiles industry in India. For that three parameters are taken i.e. different indices first one performance Index, utilization index and efficiency Index.

**Rahman Mohammad M. (2011)** Research is based on correlation among working capital and profitability. To analyze the effectiveness of working capital management of the selected textile companies. Conclusion of the study found that overall good management in working capital management of selected textile companies and thus most of the companies are profitable way going on.

**Arbab Ahmed and Matarneh Bashar (2011)** Research carried with registration technique which is very powerful statistical tool to forecast the working capital. The area of working capital management, that is possible to make the

projection after starting the average relationship in the past. For the purpose different components are used and to be finalized result. And it is presented in diagrammatic way as well mathematical way.

**KaddumiThair A. and Ramadan Imad Z. (2012)** The evaluation was made in 49 jordanian companies they are listed in Amman Stock Exchange, The carried with topic like effect of working capital management on the profitability in a targeted companies for the period 2005 to 2009.

**Kaur Harsh V. and Singh Sukhdev (2013)** This article focuses on cash conversion efficiency and setting up the operating cycle days. The study tests the relationship between the working capital attain and profitability calculated by income to current assets and income to average total assets. Authors did study with companies listed in BSE 200 that is spread over 19 industries for the period 2000 to 2010. At the end, the study lay emphasis on that proficient management of working capital notably affects profitability.

**Madhavi K. (2014)** She has done research based on empirical study of co relation among liquidity position an profitability of the paper mills in Andhra Pradesh. That has been evaluated ineffective working capital negatively effect on profitability of the paper mills.

**Gurumurthy N. and Reddy Jayachandra K. (2014)** He has conducted serve and observed working capital management position in four pharmaceutical companies APSPDCL, APEPDCL, APNPDCL and APCPDCL and come out with fact that working capital management was not so good in position and need to do better.

### OBJECTIVES OF STUDY

To familiarize the following by analyzing annual report for the past 5 years.

- To analyze the liquidity position of the company.

- To analyze the performance of the company.
- To estimate the amount of working capital of the company for a period of 5 years.
- To project the future position.
- To offer suggestions for improving the working capital position of the company.

### NEED AND SCOPE OF THE STUDY

Working capital is needed in every organization to meet day-to-day business activities. Since there is a time lag between the sale of produce and realization of cash, every organization requires Sufficient amount of working capital to meet the daily requirement and to tackle the problem as and when they arise for the smooth running of the business. The study relates to the working capital management in NLC India Limited. The study gives an idea about the working capital position of the company. The study also reveals the method by which the company has been financed. The study will be helpful for the management in decision making relating to working capital

### PERIOD OF STUDY

This study contains the working capital analysis for the period of Five years from 2014-2015 to 2018-2019. The accounting year is starting from 1<sup>st</sup> April to 31<sup>st</sup> March.

### DATA COLLECTION

The analysis of financial condition and performance of the enterprise necessitates and reliable data therefore the data for the present study is collected with the help of secondary data.

### SECONDARY DATA

The secondary data is mainly used for the study. It is taken from published source of the company like the annual report magazines, report and other financial official records.

**GRAPHS**

The interpretation of the financial statement results are done through graphs for clear perception.

**TOOLS AND TECHNIQUES**

The following tools and techniques of financial analysis are used as a measure of judging the degree of efficiency of financial performance analysis of the company.

- Ratio Analysis , Trend Analysis, Pearson's Correlation Analysis , Chi – Square Test , and ANOVA

**Table 1**  
**Component Of Current Asset And Current Liabilities In NLC India Limited**

	Years					
	2014-15	2015-16	2016-17	2017-18	2018-19	
	₹ in crores					
Current Assets	Inventories	898.63	1,277.49	1,813.24	1,688.90	1,464.38
	Trade Receivables	2,282.07	3,060.15	5,066.00	3,366.15	4,606.19
	Cash & Bank Balances	3,265.47	3,157.97	473.70	278.65	317.16
	Short Term Loans	1,423.89	1,035.41	638.49	1,989.74	716.60
	Other Current Assets	302.21	195.14	717.33	2,811.42	1,929.08
	<b>TOTAL</b>	<b>8,172.27</b>	<b>8,726.16</b>	<b>8,708.76</b>	<b>10,134.86</b>	<b>9,033.41</b>

From the above table inferred that, Current Assets alternates between increase and decrease during the study period. However, it stands around the average value of Rs.8, 955.10 Crores.

**Table 2**  
**Components of current liabilities**

	Years					
	2014-15	2015-16	2016-17	2017-18	2018-19	
	₹ in crores					
Current Liabilities	Trade Payables	631.41	970.61	707.44	495.24	1,988.07
	Tax Liabilities	422.11	424.65	249.66	657.78	510.10
	Short Term Borrowings	-	-	130.81	1,457.80	3,668.00
	Other Current Liabilities	1,217.61	1,152.97	3,201.44	3,138.58	1,920.24
	<b>TOTAL</b>	<b>2,271.13</b>	<b>2,548.23</b>	<b>4,289.35</b>	<b>5,749.40</b>	<b>8,086.41</b>

From the above table inferred that, Current Liabilities are steadily increasing from Rs.2, 271.13 Crores to Rs.8, 086.41 Crores. Its average being Rs.4,588.90 crores.

**Table 3**  
**Current assets vs. Current liabilities**

	Years				
	2014-15	2015-16	2016-17	2017-18	2018-19
	₹ in crores				
Current Assets	8,172.27	8,726.16	8,708.76	10,134.86	9,033.41
Current Liabilities	2,271.13	2,548.23	4,289.35	5,749.40	8,086.41

From the above table inferred that, Current Assets are fluctuating however its average is Rs.8,955.10 crores whereas Current Liabilities are increasing from Rs.2,271.13 crores to Rs.8,086.41 crores.

**Table 4**  
**Calculation of working capital**

	Years				
	2014-15	2015-16	2016-17	2017-18	2018-19
	₹ in crores				
Current Assets	8,172.27	8,726.16	8,708.76	10,134.86	9,033.41
Current Liabilities	2,271.13	2,548.23	4,289.35	5,749.40	8,086.41
Working Capital	5,901.14	6,177.93	4,419.41	4,385.46	947.00

From the above table its identified that, Working Capital is decreasing year by year but it has risen to Rs.6,177.93 crores during the year 2015-16.

**Table 5**  
**Current ratio**

	Years				
	2014-15	2015-16	2016-17	2017-18	2018-19
	₹ in crores				
Current Assets	8,172.27	8,726.16	8,708.76	10,134.86	9,033.41
Current Liabilities	2,271.13	2,548.23	4,289.35	5,749.40	8,086.41
Current Ratio	3.60	3.42	2.03	1.76	1.12

From the above table it's identified that, Current Ratio is decreasing steadily from 3.60 to 1.12. During the years 2014-2017 it remains above the standard of 2.0 whereas during the years 2017-2019 it remains below the standard of 2.0. It has reached the lowest of 1.12 in the year 2018-19.

**Table 6**  
**Liquid ratio**

	Years				
	2014-15	2015-16	2016-17	2017-18	2018-19
	₹ in crores				
Liquid Assets	7,273.64	7,448.67	6,895.52	8,445.96	7,569.03
Current Liabilities	2,271.13	2,548.23	4,289.35	5,749.40	8,086.41
Liquid Ratio	3.20	2.92	1.61	1.47	0.94

From the above table it's identified that, Liquid Ratio is decreasing steadily from 3.20 to 0.94. During the years 2014-2018 it remains above the standard of 1.0 whereas during the years 2018-2019 it remains below the standard of 1.0. It has reached the lowest of 0.94 in the year 2018-19.

**Table 7**  
**Working capital turnover ratio**

	Years				
	2014-15	2015-16	2016-17	2017-18	2018-19
	₹ in crores				
Working Capital	5,901.14	6,177.93	4,419.41	4,385.46	947.00
Sales	6,087.68	6,669.05	8,672.84	8,496.20	7,145.92
Working Capital Turnover Ratio	1.03	1.08	1.96	1.94	7.55

From the above table it's identified that, Working Capital Turnover Ratio steadily moves up and there is a tremendous jump to 7.55 from 1.94

**Table 8**  
**Debtors Turnover Ratio**

	Years				
	2014-15	2015-16	2016-17	2017-18	2018-19
	₹ in crores				
Trade Receivables	2,282.07	3,060.15	5,066.00	3,366.15	4,606.19
Sales	6,087.68	6,669.05	8,672.84	8,496.20	7,145.92
Debtors Turnover Ratio %	37.49	45.89	58.41	39.62	64.46

From the above table it's identified that, Debtors Turnover Ratio shows a fluctuation between 37.49% and 64.46%.

**Table 9**  
**Stock Turnover Ratio**

	Years				
	2014-15	2015-16	2016-17	2017-18	2018-19
	₹ in crores				
Cost of Goods Sold	4,986.38	5,639.54	6,592.36	6,410.30	6,504.68
Closing Stock	898.63	1,277.49	1,813.24	1,688.90	1,464.38
Stock Turnover Ratio	5.55	4.41	3.64	3.80	4.44

Stock Turnover Ratio steadily roaming around 4.5.

**CHI-SQUARE TEST FOR CURRENT ASSETS**

**Null Hypothesis H<sub>0</sub>:** Current Assets are uniformly distributed during 2014-2019

**Alternative Hypothesis H<sub>1</sub>:** Current Assets are **not** uniformly distributed during 2014-2019

**Table 10**  
**Chi-square test for current assets**

Year	Current Assets		O - E	(O - E) <sup>2</sup>	(O - E) <sup>2</sup> /E
	O	E			
2014-15	8172.27	8955.09	-782.82	612810.28	68.43
2015-16	8726.16	8955.09	-228.93	52409.86	5.85
2016-17	8708.76	8955.09	-246.33	60679.45	6.78
2017-18	10134.86	8955.09	1179.77	1391852.53	155.43
2018-19	9033.41	8955.09	78.32	6133.71	0.68
<b>Total</b>	<b>44775.46</b>				<b>237.17</b>
			Calculated value of X <sup>2</sup>	<b>237.17</b>	
			Degree of freedom (d.o.f.)	<b>4</b>	
			Significance level (SL)	<b>5%</b>	
			Table value of X <sup>2</sup>	<b>9.488</b>	

Since the Calculated value of  $X^2$  is more than the Table value of  $X^2$  the Null Hypothesis is rejected, so we can conclude that Current Assets are **not** uniformly distributed during 2014-2019.

**CHI-SQUARE TEST FOR CURRENT LIABILITIES**

**Null Hypothesis  $H_0$ :** Current Liabilities are uniformly distributed during 2014-2019

**Alternative Hypothesis  $H_1$ :** Current Liabilities are **not** uniformly distributed during 2014-2019

**Table 11**  
**Chi-square test for current liabilities**

Current Liabilities					
Year	O	E	O - E	$(O - E)^2$	$(O - E)^2/E$
2014-15	2271.13	4588.90	-2317.77	5372076.32	1170.67
2015-16	2548.23	4588.90	-2040.67	4164350.37	907.48
2016-17	4289.35	4588.90	-299.55	89732.60	19.55
2017-18	5749.40	4588.90	1160.50	1346750.97	293.48
2018-19	8086.41	4588.90	3497.51	12232548.22	2665.68
<b>Total</b>	<b>22944.52</b>				<b>5056.86</b>

Calculated value of $X^2$	5056.86		
Degree of freedom (d.o.f.)	4		
Significance level (SL)	5%		
Table value of $X^2$	9.488		

Since the Calculated value of  $X^2$  is more than the Table value of  $X^2$  the Null Hypothesis is rejected, so we can conclude that Current Liabilities are **not** uniformly distributed during 2014-2019.

**CHI-SQUARE TEST FOR WORKING CAPITAL**

**Null Hypothesis  $H_0$ :** Working Capital is uniformly distributed during 2014-2019

**Alternative Hypothesis  $H_1$ :** Working Capital is **not** uniformly distributed during 2014-2019

**Table 12**  
**Chi-square test for working capital**

Working Capital					
Year	O	E	O - E	$(O - E)^2$	$(O - E)^2/E$
2014-15	5901.14	4366.19	1534.95	2356077.64	539.62
2015-16	6177.93	4366.19	1811.74	3282409.07	751.78
2016-17	4419.41	4366.19	53.22	2832.58	0.65
2017-18	4385.46	4366.19	19.27	371.41	0.09
2018-19	947.00	4366.19	-3419.19	11690846.58	2677.59
<b>Total</b>	<b>21830.94</b>				<b>3969.72</b>

Calculated value of $X^2$	3969.72		
Degree of freedom (d.o.f.)	4		
Significance level (SL)	5%		
Table value of $X^2$	9.488		

Since the Calculated value of  $X^2$  is more than the Table value of  $X^2$  the Null Hypothesis is rejected, so we can conclude that Working Capital is **not** uniformly distributed during 2014-2019.

**ANALYSIS OF VARIANCE (ANOVA)**

**Null Hypothesis  $H_0$ :** There is **no** significant difference between the variances of Current Assets (X) and Current Liabilities (Y).

**Alternative Hypothesis  $H_1$ :** There is significant difference between the variances of Current Assets (X) and Current Liabilities (Y).

**Table 13**  
**Analysis of variance (ANOVA)**

	CA			CL		
Year	X	X·X'	(X-X') <sup>2</sup>	Y	Y·Y'	(Y-Y') <sup>2</sup>
2014-15	8172.27	-782.82	612810.28	2271.13	-2317.77	5372076.32
2015-16	8726.16	-228.93	52409.86	2548.23	-2040.67	4164350.37
2016-17	8708.76	-246.33	60679.45	4289.35	-299.55	89732.60
2017-18	10134.86	1179.77	1391852.53	5749.40	1160.50	1346750.97
2018-19	9033.41	78.32	6133.71	8086.41	3497.51	12232548.22
<b>Total</b>	<b>44775.46</b>		<b>2123885.84</b>	<b>22944.52</b>		<b>23205458.47</b>
	X'	8955.09				
	Y'	4588.90				
	V <sub>1</sub>	530971.46				
	V <sub>2</sub>	5801364.62				
	F	10.93				

Since the Calculated value of F is more than the Table value of F at 5% Significance Level for 4 and 4 degree of freedom is 6.39, the Null Hypothesis is rejected, so we can conclude that there is significant difference between the variances of Current Assets (X) and Current Liabilities (Y).

### CONCLUSION

The analysis of data such as the ratios calculated, trend lines drawn, correlation coefficient found, chi-square test results and ANOVA results show an unfavourable status of current working capital management system, and the same should be thoroughly rechecked using proper cost control and taking remedial measures. We hope that the management of the company can do wonders in working capital management and the coming years will reveal an entirely different picture showing favourable results.

### BIBLIOGRAPHY

I.M. Pandey Essence of Financial Management. Vikas Publishing House Pvt., Ltd.,

Research Methodology collected from C.R.Kothari – Second Edition, Reprinted (2004). New Age International (P) Limited Publications, New Delhi-110 002.

Review of Literature collected from FINANCE INDIA JOURNAL – Indian Institute of Finance,

‘Brown Coal’ – house Journal of Neyveli Lignite Corporation Limited. Neyveli-607 801.

Dr. S.N. Maheswari (2010), A Text book of Management Accounting, published by Sultan CHAND & Sons.

### Websites References

Annual Report (2014-2015 to 2018-2019) collected from the Website [www.nlcindia.com](http://www.nlcindia.com)

[www.wikipedia.com](http://www.wikipedia.com)

[www.financindia.org](http://www.financindia.org)

[www.moneycontrol.com](http://www.moneycontrol.com)

<https://www.scribd.com>

[https://www.academia.edu/35707067/LITERATURE\\_REVIEW\\_ON\\_WORKING\\_CAPITAL\\_MANAGEMENT](https://www.academia.edu/35707067/LITERATURE_REVIEW_ON_WORKING_CAPITAL_MANAGEMENT)

[http://www.journalijar.com/uploads/622\\_IJAR-21006.pdf](http://www.journalijar.com/uploads/622_IJAR-21006.pdf)

<https://zenodo.org/record/1154612/files/37.pdf>

Kushwah, Mathur & Ball (2009) <https://www.researchgate.net/.../publication>