



Analysis of Working Capital Management of TRF Limited

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Abstract

Working capital management is important part in firm financial management decision. Improper management of Working capital, that is, too much or too low working capital may suffer firms, so an optimum level of working capital is the key to a smooth inflow of profit. Working capital management plays a vital role in the success of businesses because of its effect on profitability and liquidity. The purpose of this study is to examine the working capital management of TRF limited. The study used secondary data collected from the company's website covering the period from 2009-2013. . The study suggests that managers can create value for their shareholders by using working capital management practices.

Key Words: Profitability, Working Capital Management, Liquidity

INTRODUCTION

Working capital in simple terms means the amount of funds that a company requires for financing its day -to- day operations. Working Capital includes the current assets and current liabilities areas of the balance sheet.

Working Capital Management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the interrelationship that exists between them. Working Capital Management is the process of planning and controlling the level and mix of current assets of the firm as well as financing these assets. Analysis of

working capital is of major importance to internal and external analysis because it is closely related to the current day -to- day operations.

IMPORTANCE OF ADEQUATE WORKING CAPITAL

- **SOLVENCY OF THE BUSINESS:** - Adequate working capital helps in maintaining the solvency of the business by providing uninterrupted of production.

- **GOODWILL:** - Sufficient amount of working capital enables a firm to make prompt payments and makes and maintain the goodwill.
- **ESAY LOANS:** - Adequate working capital leads to high solvency and credit standing can arrange loans from banks and other on easy and favorable terms.
- **CASH DISCOUNT:** Adequate working capital also enables a concern to avail cash discounts on the purchases and hence reduces cost.
- **REGULAR SUPPLY OF RAW MATERIAL:** - Sufficient working capital ensures regular supply of raw material and continuous production.
- **REGULAR PAYMENT OF SALARIES, WAGES AND OTHER DAY TO DAY COMMITMENTS:** - It leads to the satisfaction of the employees and raises the morale of its employees, increases their efficiency, reduces wastage and costs and enhances production and profit.

DISADVANTAGES OF EXCESSIVE WORKING CAPITAL

1. Excessive working capital means ideal funds which earn no profit for the firm and business cannot earn the required rate of return on its investments.
2. Redundant working capital leads to unnecessary purchasing and accumulation of inventories.
3. Excessive working capital implies excessive debtors and defective credit policy which causes higher incidence of bad debts.
4. It may reduce the overall efficiency of the business.

COMPANY PROFILE

TRF Limited, established in 1962, is part of the Tata Group of Companies which consists of more than 90 enterprises operating in seven business sectors, in over 80 countries. The Tata Group,

founded in the last quarter of the 19th century, at a time when India had just embarked on the road to independence, is committed to aligning its business opportunities with nation building activities. Over the last five decades, TRF has emerged as a pioneer in solutions for material handling equipment and processing systems required in the infrastructure development. In quest of rapid growth, TRF has also diversified into automotive applications business. It envisages to grow five times in five years and become a Rs 2500 crore Company by 2013 by enhancing focus on material handling business and auto applications business.

TRF BUSINESS UNITS

The Company has three business units which cater to the material handling requirements of customers in the core infrastructure sectors of the economy. TRF Limited undertakes turnkey projects for infrastructure development industries such as power and steel plants, cement, ports, fertilizers and mining.

The **Bulk Material Handling Equipment** Division specialises in the design and manufacture of a wide range of material handling equipment used in the infrastructure industries, such as wagon tippers, stacker reclaimers, ship loaders and unloaders, travelling wagon loaders, etc. The **Port and Yard Equipment** Division focuses on the design, supply, erection and the commissioning of material handling equipment for ports and stockyards including level luffing cranes, ship loaders and unloaders, container cranes, stacker-reclaimers and special purpose cranes for power and metallurgical plants.

The TRF Works at Jamshedpur spreads over nearly 22 acres with and this includes six covered manufacturing bays on nearly 21,250 square meters.

LITERATURE REVIEW

Dong and Su (2010) examined working capital management effects on firms' profitability of listed Vietnamese firms from 2006-2008. The authors find that, a significantly negative relationship exists between profitability, measured as gross operating

profit and the components of cash conversion cycle (inventory days, and receivable days). Furthermore, the study also observes a statistically significant positive association between profitability and accounts payable days. These findings imply that increasing firms' inventory and receivable days lead to a decreasing profit while significant financial success can be attained with increased payable days. Eljelly (2004) examined the relationship between profitability and working capital management on a sample of 929 Saudi firms spread across three industries. Using correlation data analysis and regression data estimation technique, the author finds a significantly negative relationship between the firms' profitability and liquidity level, as measured by current ratio and cash conversion cycle. The study further observes variations in the cash conversion cycle among the industries used in the study and conclude that short cash conversion cycle and large firm size is associated with enhance profitability. Islam & Rahman (1994) conducted a study on working capital trends of enterprises in Bangladesh. They find that optimum working capital enables a business to have its credit standing and permits the debts payments on maturity date and helps to keep itself fairly in liquid position which enables the business to attract borrowing from the banks. Padachi (2006) find in his research study that a firm is required to maintain a balance between liquidity and profitability while conducting its day to day operations. The manager of a business entity is in a dilemma of achieving desired trade-off between liquidity and profitability in order to maximize the value of a firm. Ganesand (2007) suggest that efficient working capital management increases firms' free cash flow, which in turn increases the firms' growth opportunities and return to shareholders.

OBJECTIVES OF THE STUDY:

- To see whether the company is prepared with enough working capital to face any kind of contingencies.

- To identify the financial strength and weakness of the company.
- To compare the performance of working capital for a particular year with previous years.
- To assess Liquidity position, Long term solvency, operational efficiency, and overall profitability of TRF LIMITED.

DATA AND METHODOLOGY

(a) Data Collection:

The methodology involved for data collection was mainly through secondary data and was obtained from the company's financial statements and the company's website. The Balance Sheets and the Profit & Loss Accounts for the last 3 years was the source based on which forecasting was done which was from the company's archives. Extreme care was taken in collecting the data from the financial statements and only relevant data was taken for the analysis based on.

(b) Methodology

The data has been collected mainly from the company's Balance Sheet and Profit & Loss Account for the past 3 years. Various tools and techniques have been used to fulfill the aforesaid objectives. A thorough study of the organization has been along with in depth study of the functioning of Finance and Accounts Department of TRF LIMITED. Further for the analysis of Working Capital Management, study of working Capital cycle / Operating cycle has been made along with Operating cycle of TRF LIMITED. Thereafter analysis of working capital has been done by taking into consideration past 3 years Current Assets and current Liabilities.

Methods adopted for Working Capital analysis:

The broad range of project management and financial advisory services include:

- Liquidity ratio.
- Working capital management stock/debtors/creditors.
- Ratio to analyze working capital structure.
- Determination of operating cycle.
- Statement of change in Working Capital.

Estimating Working Capital needs, Permanent & Variable Capital.

DATA ANALYSIS AND INTERPRETATION:

FINANCIAL RATIO ANALYSIS OF WORKING CAPITAL MANAGEMENT

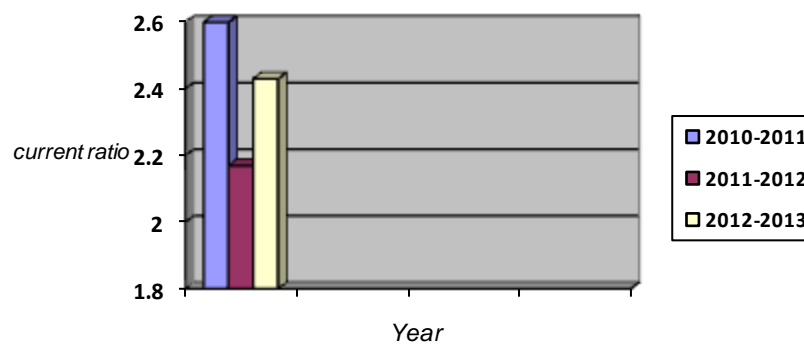
Liquidity ratios:

Current Ratio:

The current ratio is also known as the working capital ratio and is normally presented as a real ratio.

Table1 : Current Ratio

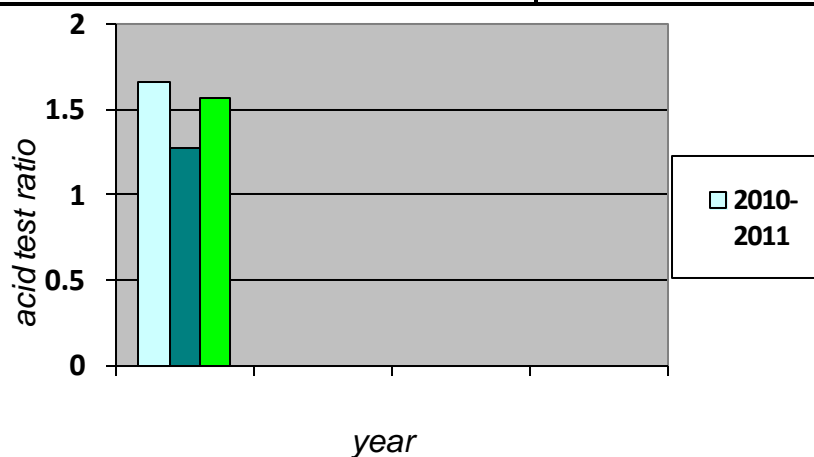
2010-11	Current Asset : Current Liability	2.60:1
2011-12	Current Asset : Current Liability	2.17:1
2012-13	Current Asset : Current Liability	2.43:1



- **Acid Test Ratio:**

Table 2: Acid Test Ratio for TRF LIMITED

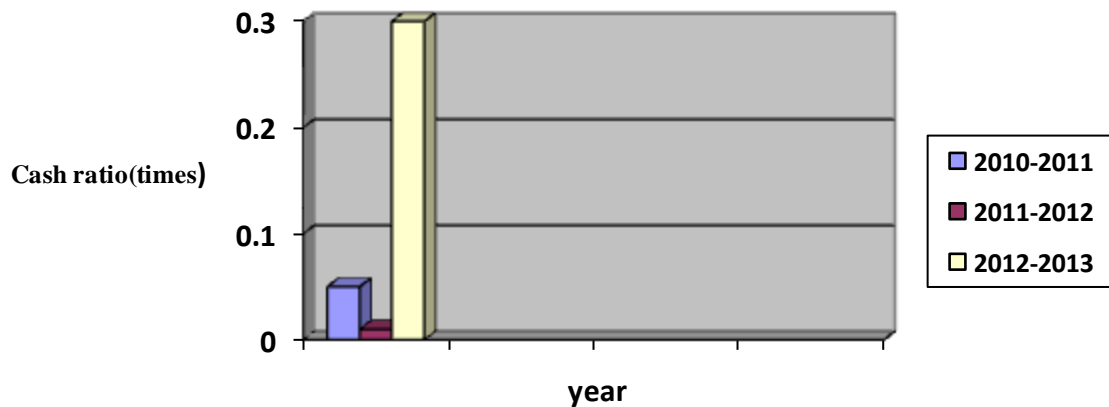
Acid Test Ratio For TRF LIMITED			
2010-11	Current Assets - Stocks: Current Liabilities	2258.21-814.19/867.00	1.66
2011-12	Current Assets - Stocks: Current Liabilities	2099.75-857.25/965.73	1.28
2012-13	Current Assets - Stocks: Current Liabilities	2650.04-929.57/1089.21	1.57



- **Cash Ratio:**

Table 3: Cash ratio for TRF LIMITED

Cash Ratio For TRF Limited				
2010-11	Cash: Current Liabilities		46.32/867.00	0.05:1
2011-12	Cash: Current Liabilities		17.59/965.73	0.01:1
2012-13	Cash: Current Liabilities		334.66/1089.21	0.30:1

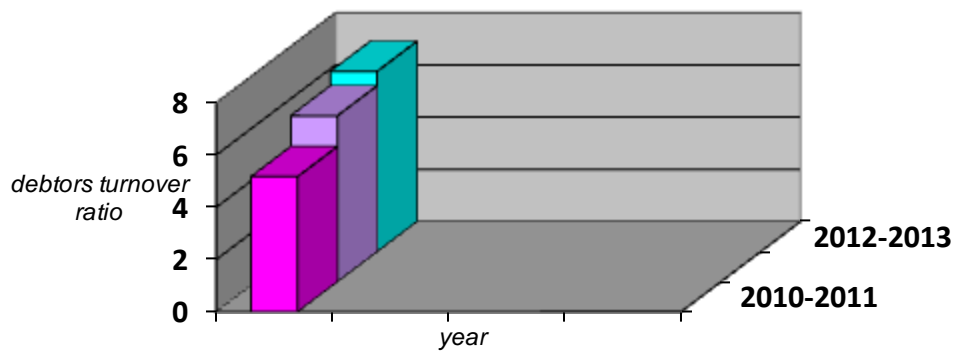


Working Capital Management : Stock/Debtors/Creditors

- **Debtor's Turnover:**

Table 4: Debtor's turnover ratio for TRF Limited

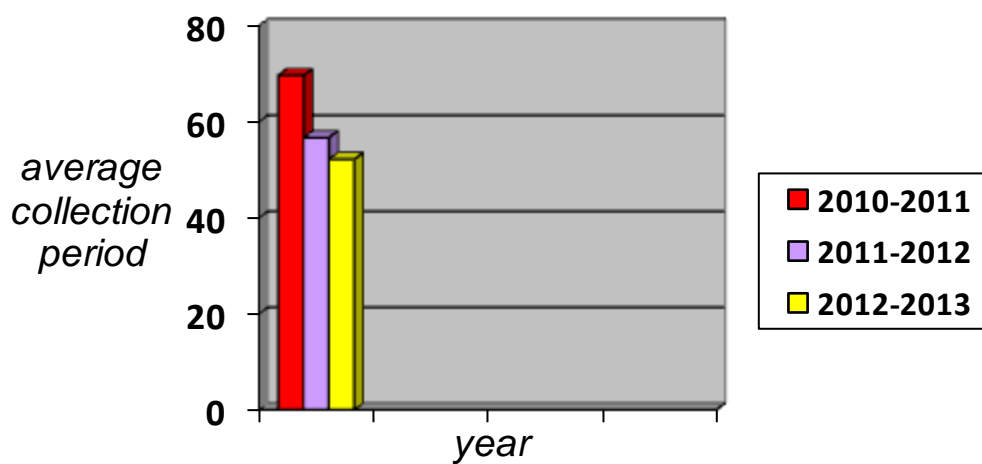
Debtor's Turnover Ratio for the TRF Limited		
2010-11	6038/1167.56	5.17 times
2011-12	6400/1007.38	6.35 times
2012-13	7739/1120.41	6.90 times



• **Average Collection**

Table 5: Average collection period for TRF Limited

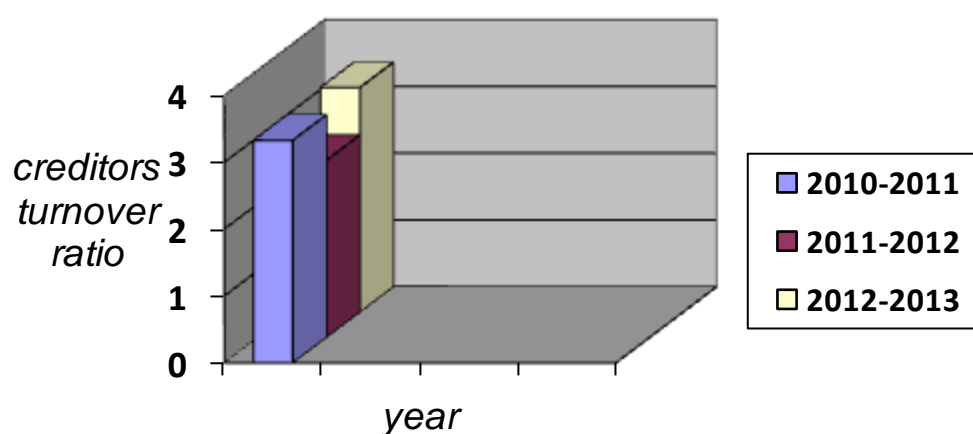
Average Collection Period for the TRF Limited		
2010-11	360 / 5.17	69.61days
2011-12	360 / 6.35	56.69 days
2012-13	360 / 6.90	52.17 days



- **Creditor's Turnover:**

Table 6: Creditor's turnover ratio for TRF Limited

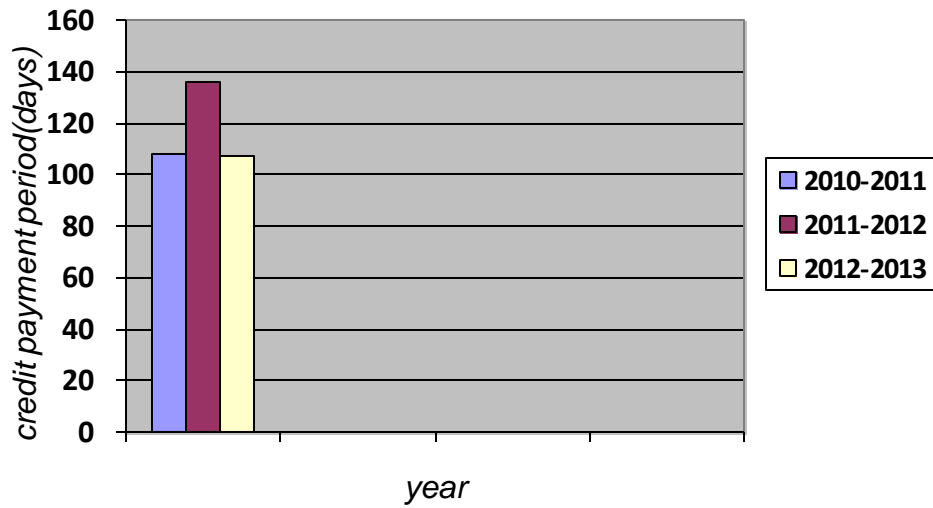
Creditor's Turnover Ratio for the TRF Limited		
2010-11	1378/413.69	3.33
2011-12	1390.10/523.95	2.65
2012-13	1685/500.83	3.36



- **Credit Payment Period:**

Table 7: Credit payment period for TRF Limited

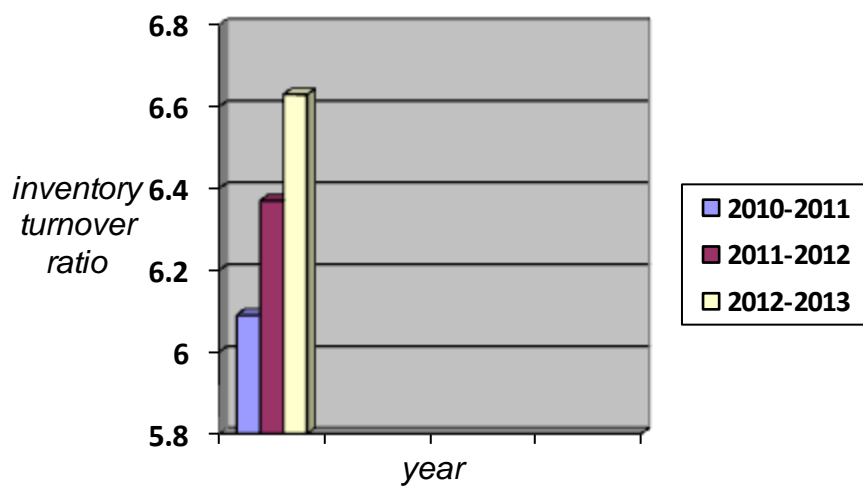
Credit Payment Period for the TRF Limited		
2010-11	360 / 3.33	108.10 days
2011-12	360 / 2.65	135.84 days
2012-13	360 / 3.36	107.14 days



• **Inventory Turnover Ratio:**

Table 8: Inventory turnover ratio for TRF Limited

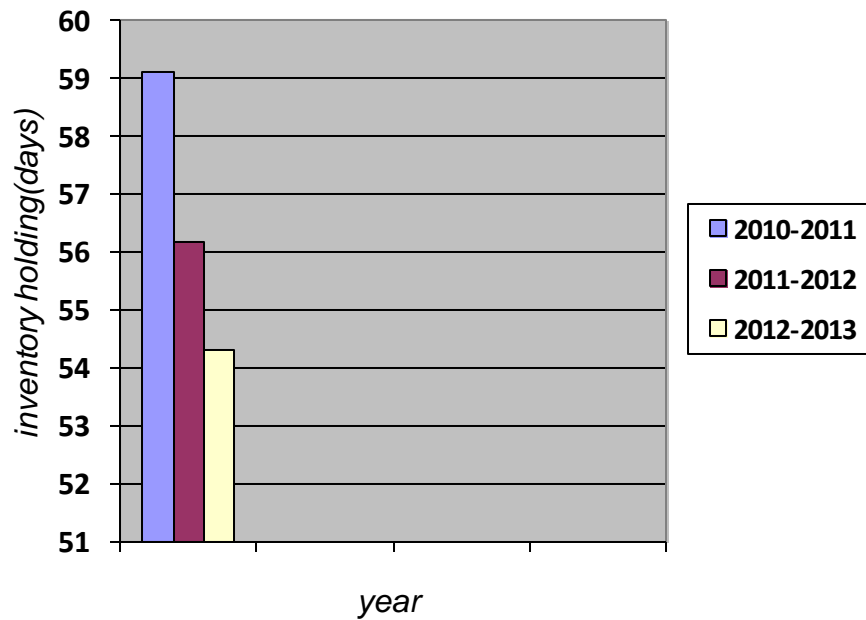
Inventory Turnover Ratio for the TRF Limited		
2010-11	4960/814.19	6.09
2011-12	5462/857.25	6.37
2012-13	6168/929.57	6.63



- **Inventory Holding Period:**

Table 9: Inventory holding period

Inventory Holding Period for the TRF Limited		
2010-11	360 / 6.09	59.11 days
2011-12	360 / 6.41	56.16 days
2012-13	360 / 6.63	54.29 days

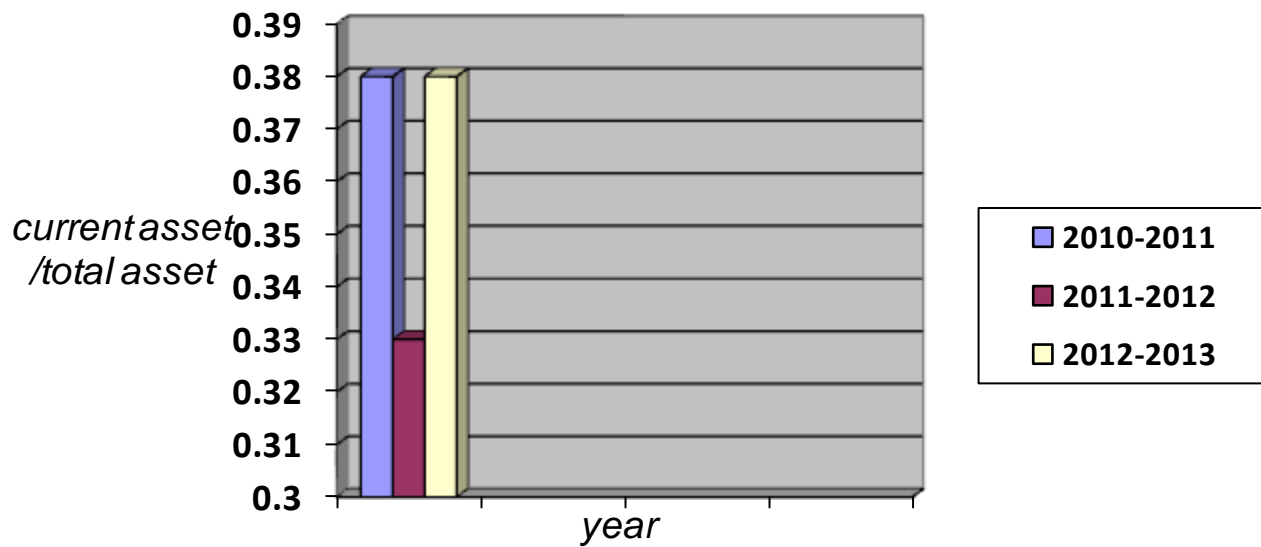


Working Capital Management : Ratio to analyze W/C Structure

- **Current Asset to Total Assets Ratio:**

Table 10: Current asset to total asset ratio for TRF Limited

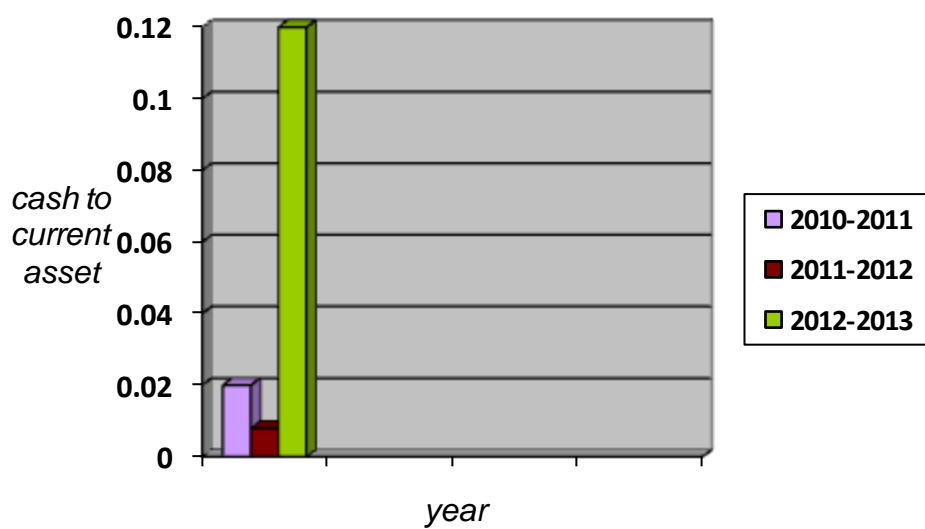
Current Asset to Total Asset Ratio for the TRF Limited		
2010-11	2260.58/5946.26	0.38
2011-12	2099.75/6266.87	0.33
2012-13	2650.04/6843.25	0.38



• **Cash to Current Asset Ratio:**

Table 11: Cash to current asset ratio

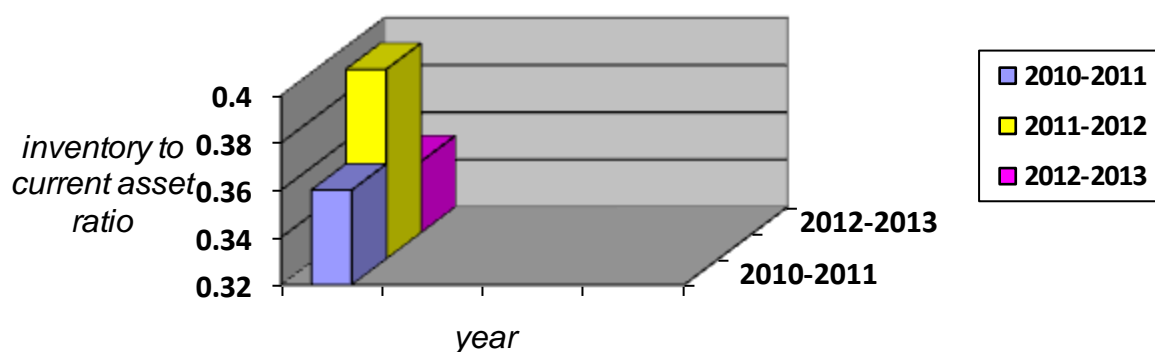
Cash to Current Asset Ratio for the TRF Limited		
2010-11	46.32/2260.58	0.020
2011-12	17.59/2099.75	0.008
2012-13	334.66/2650.04	0.120



Inventory to Current Asset Ratio:

Table 12: Inventory to current asset ratio for TRF Limited

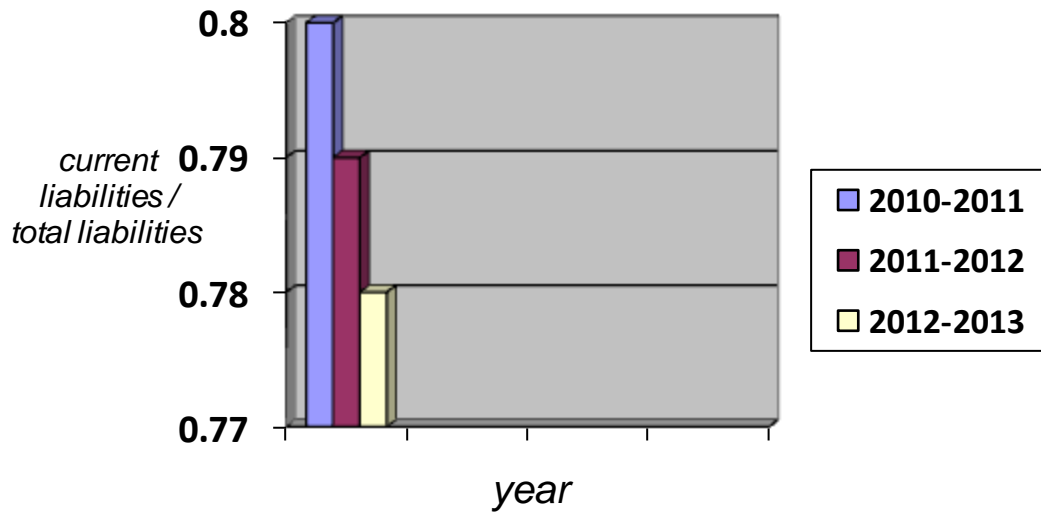
Inventory to Current Asset Ratio for the TRF Limited		
2010-11	814.19/2260.58	0.36
2011-12	857.25/2099.75	0.40
2012-13	929.57/2650.04	0.35



- Current Liabilities to Total Liabilities:**

Table 13: Current liabilities to total liabilities ratio for TRF Limited

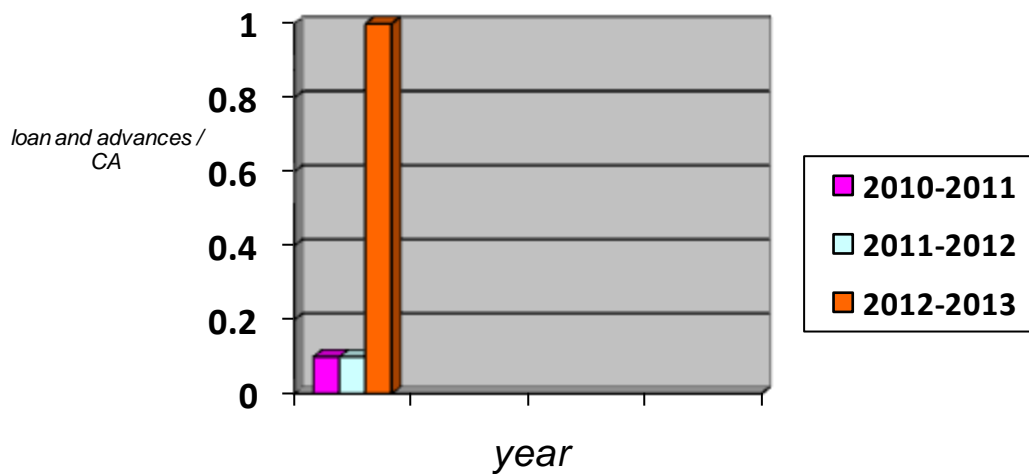
Current Liabilities to Total Liabilities Ratio for the TRF Limited		
2010-11	867.00/1075.57	0.80
2011-12	965.73/1215.29	0.79
2012-13	1089.21/1382.14	0.78



• **Loan & Advances to Current Asset Ratio**

Table 14: Loan & Advances to Current assets ratio for TRF Limited

Loan & Advances to Current Asset Ratio for the TRF Limited		
2010-11	229.93/2260.58	0.10
2011-12	217.53/2099.75	0.10
2012-13	265.40/2650.04	1.00



Inventory Management at TRF LIMITED:**Inventory Turnover Ratio:**

Table 15: table showing Inventory turnover ratio

TRF LIMITED	For the year ended Mn/Rs.		
	2010-11	2011-12	2012-13
Inventory Turnover	6.09 times	6.37 times	6.63 times

DETERMINATION OF OPERATING CYCLE OF TRF LIMITED:**A) Inventory conversion period:****a) Raw Material Conversion Period:**

Years	2010-11	2011-12	2012-13
Raw material consumed / Avg. Raw material inventory	1.96 times	1.92 times	1.88 times
RCMP	$360/1.96$ =183.67 days	$360/1.92$ =187.5 days	$360/1.88$ =191.48 days

b) Work-In-Progress Conversion Period:

Years	2010-11	2011-12	2012-13
Cost of Production/ Avg. Work in progress	13.51 times	19.26 times	8.41 times
WIPCP	$360/13.51$ =42.80 days	$360/19.26$ =18.69 days	$360/8.41$ =26.64 days

c) Finished Goods Conversion Period:

Years	2010-11	2011-12	2012-13
Sales/ Closing stock	18.54 times	18.48 times	24.08 times
FGCP	$360/18.54$ =19.41 days	$360/18.48$ =19.48 days	$360/24.08$ =14.95 days

d) Debtors Conversion:

Years	2010-11	2011-12	2012-13
Sales/ Closing debtors	5.16 times	6.35 times	6.90 times
DCP	$360/5.16$ =69.76 days	$360/6.35$ =56.69 days	$360/6.90$ =52.17 days

Payables Conversion:

Years	2010-11	2011-12	2012-13
Purchases/ Closing creditors	3.33 times	2.65 times	3.36 times
PCP	$360/3.33$ =108.10 days	$360/2.65$ =135.8 days	$360/3.36$ =107.14 days

Operating Cycle:

Gross Operating Cycle (GOC):

Years	2010-11	2011-12	2012-13
RCMP+WIPCP+FGCP+DCP	299.48 days	282.36 days	301.40 days

Net Operating Cycle (NOC):

Years	2010-11	2011-12	2012-13
GOC-PCP	299.48-108.10 =191.38 days	282.36-135.80 =146.56 days	301.40-107.14 =194.26 days

STATEMENT OF CHANGE IN WORKING CAPITAL

Table 33: Table showing statement of change in working capital

TRF LIMITED	Years		
Particulars	2010-11	2011-12	2012-13
Total Current assets (A)	2258	2099	2650.04
Total Current Liabilities (B)	1052.03	1199.28	1351.91
Working Capital Shortfall (A-B)	1205.97	899.72	1298.13

Estimating Optimal Need of Working Capital

a) Raw material consumed per month: 140.40 Mn/Rs.

b) Work in progress: 764.81 Mn/Rs.

c) Finished Goods: 26.77 Mn/Rs.

d) Total Inventory Needs: 931.98 Mn/Rs.

e) Debtors: 644.91 Mn/Rs.

f) Operating Cash: 52.03 Mn/Rs.

Therefore, Total Working Capital Required = $931.98 + 644.91 + 52.0 = 1628.92$ M/Rs.

FINDING & SUGGESTIONS**Findings:**

The study conducted on working capital management of TRF LIMITED shows the evaluation of management performance in this context. Major findings and suggestions thereon are narrated as under:

1. As current ratio is showing an increasing trend year on year, which implies that current asset, are more compared to current liabilities.
2. High current assets turnover ratio is more judicious and shows efficiency of management and proper utilization of the assets.
3. TRF LIMITED has not a sufficient amount of working capital during the past two years. As company is showing decreasing trend of working capital, which shows that company, kept its obligation for long time and less cash in hand to pay off its obligations.
4. Current ratio (2.43:1) and quick ratio (1.57:1) of the year 2012-13 are little bit more than that of the ideal figures i.e. ideal current ratio is 2:1 while quick ratio is 1:1.
5. Inventory turnover ratio depicts the increasing trend which indicates the faster sale of inventory which is good for the company.
6. Debtors Turnover ratio reveals an increasing trend during the period of study and average collection period came down from 69 to 52 days which shows that company is having specific policy for debtors' management.
7. The operating cycle of the firm is disturbed, as it is continuously increasing which is not good for the company.
8. The optimum need for working capital on an average basis company roughly will require more than 1628.92 Mn/Rs. as its working capital.

SUGGESTIONS:

1. In case of inventory management ABC analysis, FSN technique, VED technique should be adopted to increase the efficiency of inventory management. Further a inventory monitoring system should be introduced to avoid holding of excess inventory.
2. It is suggested to maintain a favorable current and quick ratios which shows a lesser than ideal figures. It can be done either through increasing current assets or decreasing liabilities.
3. With the help of proper inventory management systems, like demand-based management, etc. the company can reduce the need for working capital and inventories can be financed through accounts payable.
4. The company should try and maintain an optimum level of working capital in order to improve upon the workings of the company

CONCLUSION

The study on working capital management conducted in TRF Ltd. to analyze the financial position of the company. The company's financial position is analyzed by using the tool of annual reports from 2010-2013. The financial status of TRF Ltd. is good. In the last year the inventory turnover has increased, this is good sign for the company. The company's liquidity position is very good With regard to the investments in current assets there are adequate funds invested in it. Care should be taken by the company not to make further investments in current assets, as it would block the funds, which could otherwise be effectively utilized for some productive purpose. On the whole, the company is moving forward with excellent management.

REFERENCES

1. Dong HP, Su J (2010). "The Relationship between Working Capital Management and Profitability: A Vietnam Case", *Int. Res. J. Financ. Econ.* 49:59-67.
2. Eljelly A (2004). "Liquidity-Profitability Trade-off: An empirical Investigation in an Emerging Market", *Int. J. Commerce Manage.* 14(2):48 – 61.
3. Padachi, Kesseven (2006). "Trends in Working Capital Management and Its Impact on Firm's Performance: An analysis of Mauritian Small Manufacturing Firms", *International Review of Business Research Papers*, Vo. 2 No. 2 (October), pp 45-58
4. Ganesan, V. (2007). "An Analysis of Working Capital Management Efficiency in Telecommunication Equipment Industry", *Rivier Academic Journal*, Vol. 3, No. 2, pp 1-3
5. <http://www.researchandmarkets.com/reportinfo.asp?report-id=4020>