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Working Capital Management : A Case Study of MMTC Ltd.

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Abstract

The economic development of a nation depends on the availability and utilization of financial resources .India has a rich variety of minerals and the government has sole ownership of these resources.There are a number of govt. trading companies in the business of minerals, metal, ago based products and their allied good at international as well as national level. In view of the importance given to the export of mineral ores in the country's five year plan, a decision was taken by Govt. of India to bifurcate the STC and establish another corporation to deal exclusively with the trade in minerals and metals. Minerals and metals trading corporation (MMTC) of India Ltd. Established with entire paid –up capital by Govt. of India. Minerals and metals trading corporation (MMTC) of India Ltd. Involved in the business (export and import) of minerals, metals, agro products and other allied products. To render high quality of services to all categories of customers with professionalism and efficiency it requires efficient management of working capital which plays a crucial role in the successful functioning of the firm. The efficiency of firm to earn profits depends largely on its working capital management. It (WCM) have a crucial effect on firm's liquidity and profitability. The liquidity position of firm reflect the image of working capital management. For making the analysis of liquidity- profitability relation of MMTC, ratio analysis techniques have been used. Profitability measure of amount by which a company's revenues exceed its relevant expanses. Liquidity as being on one endof straight line and profitability on the other end of the line. There is the trade - off between liquidity and profitability. The period of the study the liquidity position of the firm was not satisfactory. Whereas the profitability position was strong. The excess current assets helps in meeting its financial obligation within the operating cycle of the firm. Maximization of shareholder's wealth of a firm is possible only when there are sufficient returns from their operations. But profit can be earned will naturally depends, upon the magnitude of the sale. The working capital makes a bridge between the sale of goods and receipts of cash .So that it is able to meet its obligations timely. It facilitate the maximization of the wealth of the firm. When the profitability position was strong were as the liquidity position was not satisfactory. On the basis of this study it can be concluded that there is no significant difference between liquidity and profitability. The risk factor of the firm is high as compared to profitability. The total risk of the firm is high as compared to the ROCE.

Keywords: Liquidity, Profitability, Risk, Current Ratio and Net Working Capital.

Introduction

Working capital is considered as central nervous system of the firm. Efficient management of working capital involves effective control over the current assets and current liabilities. Adequate working capital needs to be maintained in order to discharge day to day liabilities and protect the business from adverse effects in times of calamities and emergencies. The current assets helps for a smooth, uninterrupted production and sale. It is also used by the company to meet their short term obligations.

There are two concepts of working capital (i) Gross working capital refers to the firm's investment in current assets. (ii) Net working capital means the difference between current assets and current liabilities. When the firm invests more in current assets it reduces the risk of illiquidity, but losses in terms of profitability, since the opportunity of earning from the excess investment in current assets is lost. So, the firm's decision about the level of investment in current assets involves a trade –off between risk and return.

Net working capital indicates the liquidity position of the firm. To have higher profitability, the firm may sacrifice solvency and maintain a relatively low level of current assets. When the firm does so, its profitability will improve as fewer funds are tied up in idle current assets, but its solvency would be threatened and would be exposed to greater risk of case shortage and stock-outs.

To ensure solvency the firm should be very liquid, which means larger current assets holdings. If the firms maintains a relatively larger investment in current assets, it will have no difficulty in paying claims of creditors. Thus a liquid firm has less risk of insolvency; that is, it will hardly experience a cash shortage or a stock- out situation. A considerable amount of firm's funds will be tied up in current assets and to the extant this investment is idle, the firm's profitability will suffer.

Working Capital Management

The firm should maintain a satisfactory level of working capital, i.e., it is neither inadequate not redundant. If it is inadequate than it stagnates growth, the firm losses its reputation when it is not in a position to honors its short- term obligations and faces tight credit terms which is bad for the firms. If the firm's working capital is excessive it means holding costs and idle funds which earn no profits for the firms.

If the firm's level of current assets is very high, it has excessive liquidity. Its return on assets will be low, as funds tied up in idle cash and stocks earn nothing and high levels of debtors reduce profitability. The firm's decision about the level of investment in current assets involves a trade-off between risk and return. The firm therefore is required to strike a right balance.

Justification of the Study

Efficient management of working capital is required to ensure that the firm is able to fulfill its day to day requirements and it has he sufficient ability to satisfy its present operations and future short-term expenses. The working capital management policies of a firm have a great impact on its profitability, liquidity and structural health of the organization. Working capital is the nerve center of business. Working capital is very essential to maintain the smooth running of the business. So, there exist a number of implication for enquiry into working capital management of companies against this background a study was conducted on the working capital position of MMTC Ltd.

Objectives of Study

This study has the following objectives:-

1. To analyze the working capital position of MMTC Ltd.
2. To analyze the effect of liquidity on profitability.
3. To analyzethe effect of risk on profitability.
4. To give suggestions on the basis of finding of the study.

Hypothesis of the Study

This study is based on the following null hypothesis (Ho):

1. There is no significant differences between liquidity and profitability of MMTC during the period of the study.
2. There is no significant difference between risk and profitability of MMTC during the period of the study.

Company Profile

MMTC Ltd. (MMTC) was established in 1963 primarily for international trade in minerals and metals. It is the largest international trading company of India and has been accorded the status of `Five Star Export House' by the Govt. of India for outstanding contribution to exports. Over the years MMTC has added various products such as minerals, precious metals, fertilizers, metals, agro products, coal and hydrocarbon, and general trading to its portfolio. As a strategy to diversify and add value to trading operations MMTC has set up NeelachalIspat Nigam Limited (NINL) an iron and steel plant of 1.1 MT capacity, 0.8 MT coke oven plant with captive power plants jointly with Govt. of Orissa with total capital expenditure of nearly ₹20 bn. MMTC has also promoted a wholly owned subsidiary MMTC Transnational Pte Ltd. (MTPL) under the laws of Singapore in october 1994as a part of its strategy to enhance its presence in South and South East Asian Countries, which holds the prestigious "Global Trader Status" awarded to its by Singapore Trade Development Board in 2000. The company commands extensive market coverage in over 65 countries across the globe and its domestic network spreads across 76 offices, warehouses and retail outlets. MMTC is the largest nonoil importer in India and holds the largest billion trader in the subcontinent. MMTC 's diverse trade activities constitutes the Third Country Trade, Joint ventures, link deals, e-commerce trading which are the tools for modern day international trading.

MMTC have the complete control over international trade logistic both for imports and exports having comprehensive infrastructure for bulk cargo handling with well -developed arrangements for rail & road transportation, warehousing, &shipping operations.

MMTC's progress in the recent past has taken it from monopoly states to a competitive open market player making a strong thrust towards board basing its sphere of activities. While consolidating its core areas of business.

Integrating IT with business process has been a part of their strategy towards overall productivity enhancement. ERP project under implementation will pave the way for total integration of its internal system make MMTC ready for fat changing needs of international business adopting E-commerce.

To create synergy between its manufacturing trading and technology partners and to bring optimum efficiency and expertise to its operations worldwide, MMTC has set up 7 joint venture, 3 in agriculture, 1 in horticulture, 1in processed food, million tonnes capacity Iron & Steel plant and a million tonnes capacity coke oven battery with by product recovery plant and a captive power of 55MW capacity. Being the major global player MMTC strictly adhere to the procurement, quality control& guaranteed timely delivery of consignment having its comprehensive infrastructural expertise to handle the consignments through a wide network of regional and part offices in India as well as international subsidiaries and foreign offices.

MMTC has won highest export award from Chemicals and Allied Products Export Promotion Council (CAPEXIL) as the largest exporter of Minerals from India. Being the world's 2nd largest importer of fertilizer and biggest in India. MMTC has become a major fertilize marketing company in India. Through planned forward integration of its imports activities with the direct marketing of Urea, DAP, MOP, Sulpher, Rock phosphate, SSP& Other farming and agricultural inputs, MMTC hasmade an aggressive foray into domestic marketing of its own brand of fertilizer.

MMTC is also India's largest importer of gold & silver handling as well as platinum, rough diamonds, coloured stones, emeralds, rubies and other semi-precious stones and supplies these items to jewelers in India for domestic sale and exports. A new billion delivery Centre has been opened at Raipur for the ongoing commitment to cater Gold customers across the country and to vest cross section of the billion market. MMTC has opened a duty free jewellary store in the departure lounge at Sahar international airport Mumbai, India an assay and hall marketing units has been set up at New Delhi for testing the purity of Gold and Gold articles in accordance with the internationally accepted fire assay method. Besides organizing major jewellery exhibitions abroad, exclusively. MMTC is keen to set up manufacturing and joint ventures for modern jewellary in association with leading names in the international jewellary trade as well as marketing. MMTC supplies gold on loan bases to the bullion traders and jewelers. India at international rate of interest to help jewelers and artisans to overcomes their working capital requirement.

MMTC is also India's largest seller of imported nonferrous metals viz. copper, aluminum, zinc, lead, tin & nickel. It also imports Magnesium, Antimony, Silicon & Mercury and industrial raw materials like asbestos and also steel and its product. Its imports products are all quality controlled checked by ASTM, BSS & LME approved. MMTC is amongst the leading Indian exporters and importers of agro product. The company's bulk exports include commodities such as rice, wheat, soya meal, sugar, pulses, processed foods and plantation product like tea, coffee, jute, etc. MMTC also undertakes extensive operations in oil seed extraction, from the procurement of seeds to the production of de-oiled cakes for exports as well as the production of edible oil for domestic consumption. MMTC also handles items like textiles Mulberryraw silk, building raw material, marine products, chemicals, drugs, pharmaceutical's, processed foods, hydrocarbons coal and coke.

Review of Literature

Andrew & Sirkin (2003) highlights the importance of innovating through working capital management and the operations to generate cash rather than simply product development.

Bonamyoung (2005) highlighted that a company with a lower cash conversation cycle is more efficient because it turns its working capital over more times in a year.

Gupta (2010) observed that better working capital can help companies improve that growth rates vis-à-vis competitors and ultimately increase the wealth of their shareholders.

Research Design & Methodology

In this study MMTC Ltd. has been taken for analysis of working capital position. Present study is based on secondary data i.e. published annual reports of the company. This study has covered 6 years data from 2009-2010 to 2014-2015 for analyzing the working capital position of MMTC Ltd. The financial data's re edited, classified and tabulated as per the requirement of the study. The collected data have been analyzed by various ratios for liquidity and profitability. The liquidity and profitability position have been measured to analyze the working capital position of MMTC Ltd. For assessing the trends of above ratios, arithmetic mean, Spearman's Rank Correlation Coefficient and Student t-test have been used.

Limitation of the Study

The following are the limitation of the study-

1. The study covers only 6 years period i.e. 2009-10 to 2014-15 for the working capital analysis of MMTC Ltd.
2. The secondary data's used in this study have been taken from published annual reports only.
3. For making the analysis of working capital position of MMTC Ltd. Some ratio analysis techniques of financial management have been used.

Analysis of Working Capital Management of MMTC Ltd.

Liquidity

Working Capital Position

The excess of current assets over the current liabilities provides measures of safety margin available against uncertainty in realization of current assets and flow of funds. The gross working capital means the firm's investment in current assets and Net working capital means the excess of current assets over the current liabilities.

Table 1: shows the working capital position of the firm. The highest value of working capital in 2011-2012 and least in 2014-2015 with value of 12281.77 crores and 4096.53 crores respectively. The current liability of the firm was highest in 2012-2013 with 8775.02 crores and least in 2014-2015 with 3315.14 crores. The gross working capital had an average annual growth rate of -14.93% and standard deviation 8.0374×10^5. The net working capital of the firm had an average annual growth rate of -15.42% and a high standard deviation of 2724.22.

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Table: 1
Statement Showing Net Working Capital Position
(₹ incrores)

Year	Current Assets (₹)	Current Liabilities (₹)	Net Working Capital (₹)
2009-2010	11421.36	5387.46	6033.90
2010-2011	12281.77	5246.57	7035.20
2011-2012	9590.43	8775.02	815.41
2012-2013	5891.54	5107.66	783.88
2013-2014	4096.53	3315.14	781.39
2014-2015	5446.84	4674.34	772.50
Arithmetic mean (x)	8121.41	5417.69	2703.71
Average annual growth rate (%)	-14.938%	1.04%	-15.42%
Standard deviation (σ)	8.0374×10^5	1651.83	2724.22

Sources: Annual Reports of MMTC from 2009-2010 to 2014-2015

Current Ratio

Current Ratio is defined as the relation between current assets and current liabilities. Current ratio is an index of the concerns financial stability. A higher current ratio is an indication of that a firm will have adequate funds to pay current liabilities and other current payments.

It can be calculated as follows –

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

Table 2
Statement Showing Current Ratio
(₹ In Crores)

Year	Current Assets	Current Liabilities	Current Ratio
2009-2010	11421.36	5387.46	2.12
2010-2011	12281.70	5246.57	2.35
2011-2012	9590.43	8775.02	1.10
2012-2013	5891.54	5107.66	1.16
2013-2014	4096.53	3315.14	1.24
2014-2015	5446.84	4674.34	1.17
Arithmetic Mean (x)	8121.42	5417.69	1.52
Average Annual Growth Rate(%)	-14.938%	1.04%	-7.12%
Standard deviation(σ)	8.0374×10^5	1651.83	0.5092

Sources: Annual Reports of MMTC from 2009-10 to 2014-15.

During the period of study it was observed that current ratio of the firm was always above 1 for the six years of study. The highest ratio of 2.35 times was observed in year 2010-11 and least of 1.10 in the year 2011-12. The current assets shows decreasing trends through first five years and increasing in sixth year whereas current liabilities was not followed any particular trends it was fluctuating throughout the study. The average annual growth rate of current assets and current liabilities was -14.938 and 1.04% respectively. The current ratio showed trend with an average ratio of 1.52 times with an average annual rate -7.12%. The standard deviation the ratio was low with a value of 0.5092.

Liquid Ratio or Quick Ratio

The liquidity ratio indicates the ability of a concern to meet its short terms obligation at the time of emergency situation. The ideal ratio is 1:1 times.

The Ratio can be Expressed as Given Below

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

Where liquid assets consist of cash in hand and cash at bank, debtors less provisions for bad and doubtful debts, investment and other current assets which can be liquid immediately.

Table: 3
Statements of Liquid Assets to Current Liabilities
(₹ In crores)

Year	Liquid Assets (₹)	Current Liabilities (₹)	Liquid Ratio (Times)
2009-10	7633.07	5387.46	1.42
2010-11	9287.97	5246.57	1.78
2011-12	5623.73	8775.02	0.65
2012-13	3684.15	5107.66	0.73
2013-14	2206.79	3315.14	0.67
2014-15	3198.85	4674.34	0.69
Arithmetic Mean(x)	5272.43	5417.70	0.99
Average Annual Growth Rate (%)	-9.48%	1.40%	-16.77%
Standard deviation(σ)	2517.97	1651.83	0.44

Sources: Annual Reports of MMTC from 2009-2010 to 2014-2015

Interpretation

The above table shows the liquidity ratio of the firm during the period the period of study. The ratio had the highest value of 1.78 times in the year 2010-11 and the least of 0.65 ties in 2011-12. During the period of study this ratio also observed a fluctuating tendency. The liquid assets of the firm were highest in 2010-11 and least in 2013-14 with value of 9287.97 crores and 2206.79 crores respectively. The liquid assets had an average value of 5272.43 crores with an average annual growth rate -9.48%. The liquid ratio had an average value of 0.99 times with an annual growth rate of -16.77%. The standard deviation of the ratio was with a value of 0.44.

Cash Position Ratio

Cash position ratio shows how much of total assets is kept in the form of cash is revealed through this ratio. Higher ratio shows less risks and vice-versa.

$$\text{Cash Position Ratio:} = \frac{Cash\ +\ Cash\ Equivalents}{Total\ Assets}$$

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Table: 4

Statement of Cash to Total Assets

(₹ In crores)

Year	Cash & Equivalents (₹)	Total Assets (₹)	Cash Position Ratio (Times)
2009-10	6080.76	11839.40	0.52
2010-11	6748.24	19429.52	0.35
2011-12	2853.12	12742.73	0.23
2012-13	1705.54	6897.26	0.25
2013-14	645.88	5057.64	0.13
2014-15	418.15	6300.16	0.06
Arithmetic Mean (x)	3076.94	10377.78	0.29
Avg. Annual Growth Rate	-36.89%	-3.65%	-18.31%
Standard deviation(σ)	1685.78	4944.83	0.1356

Sources: Annual Reports of MMTC Ltd. From 2009-10 to 2014-15.

Interpretation

The above table shows the cash generating capacity of the total assets of the firm cash position ratio fluctuating tendency like the above ratios. It had a earn value of 0.29 ties with a negative average annual growth rate of -18.31% the highest ratio of 0.52 times was observed in 2009-10 and least of 0.06 in 2014-15. The firm maintained the highest cash of 6748.24 crores in 2010-11 and the least of 418.15 in year 2014-15. Cash had an average value of 3076.94 crores with an average annual growth of -36.89%. The total assets of the firm had a mean value of 10377.78 crores with an average annual growth rate of -3.658%. Total Assets of the firm was highest in 2010-11 and least in 2013-14 with value of 19429.52 crores and 5057.64 crores. The ratio had a degree of standard deviation with value of 0.1356.

Working Capital Turnover Ratio

Working capital turnover measures the velocity of the utilisation of net working capital. It measures the efficiency or effectiveness with which a concern utilises its resources. This ratio is also a good indicator of overall profitability of a concern. Higher ratio indicated quick conversion of working capital into sales. It is calculated as:

$$\text{Working Capital Turnover Ratio:} = \frac{Cost\ of\ Goods\ sold\ or\ Annual\ Sales}{Average\ Working\ Capital}$$

Table 5

Statements of Annual sales to Working Capital

(₹ In crores)

Year	Net Sales or Cost of Goods Sold (₹)	Net Working Capital (₹)	Working Capital Turnover Ratio (Times)
2009-10	45124.19	6033.90	7.48
2010-11	68854.49	7035.20	9.78
2011-12	65929.11	815.41	80.86
2012-13	28415.62	783.88	36.25
2013-14	25074.49	781.39	32.09
2014-15	18241.50	772.50	23.62
Arithmetic Mean(x)	41939.90	2703.71	31.68
Avg. Annual Growth Rate (%)	-9.51%	-15.42%	132.9%
Standard deviation(σ)	19744.11	2724.22	24.39

Sources: Annual Reports of MMTC from 2009-10 to 2014-2015.

Interpretation

The above table shows the sales generated per amount of working capital of the firm. The ratio also showed a fluctuation tendency during the period of study. The ratio had an average value of 31.68 times with an average annual growth rate of 132.9%. Net working capital turnover ratio observed the highest value of 80.86 times in 2011-2012 and least value of 7.48 times in 2009-10. The highest co Gs of 68854.49 crores was in 2010-11 and the least of 18241.50 crores in 2015. COGs had a earn value of 41939.90 crores with an average annual growth rate of -9.51%. The ratio had a high standard deviation of 24.39.

Analysis of Liquidity, Profitability and Risk Using Spearman's Rank Correlation and Student T-test

The Spearman's rank correlation is the relationship between different rankings of the same set of items. A rank correlation coefficient measures the degree of similarity between two rankings and can be used to assets its significance.

$$r = 1 - \frac{6(\sum d^2)}{n(n^2-1)}$$

Where D= R1- R2

(It is the difference between ranks)

R = Rank

Student distribution is a small test used for testing of hypothesis of sample size less than 30.If the calculated value of t is less than table value. The null hypothesis will be accepted and vice-versa; for a given significance level. It can be calculated as follows:

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

Where r = Spearman's Rank Coefficient of Correlation;

n= No. of observation

Liquidity & Profitability Analysis of MMTC using Student Test

Profitability

Profitability is an indicator of the efficiency with which the operations of concern are carried in. It also indicates the percentage of return in the business. A high return on Investment Shows the company is having a higher rate o profit as percentage of capital employed. It is calculated as follows:

$$\text{Profitability} = \frac{Operating\ profit}{Net\ Sales} \times 100$$

Table 6

Statement showing Operating Profit Ratio

(₹ In crores)

Year	Operating Profit (EBIT) (₹)	Net Sales (₹) In Crores	Ratio (%)
2009-10	317.61	45124.19	0.7039
2010-11	329.97	68854.49	0.4793
2011-12	276.62	65929.11	0.4196
2012-13	299.75	28415.62	1.06
2013-14	345.58	25074.49	1.38
2014-15	134.17	18241.50	0.74
Arithmetic Mean (x)	283.95	41939.90	0.79
Avg. Annual Growth Rate (%)	-9.96%	-9.51%	31.176%
Standard deviation(σ))	70.45	19744.11	0.33

Sources: Annual reports of MMTC from 2009-10 to 2014-15.

Interpretation

The above table shows the earning capacity of the firm. Operating ratio also showed similar fluctuating tendency like the above ratios. It had a mean value of 0.79% with an average annual growth rate of 31.176%. The highest ratio of 1.38% was observed in 2013-2014 and least of 0.4196% in 2011-12. The firm maintained the highest operating profit of 345.58 crores in 2013-2014 and least of 134.17 crores in 2014-15. Operating profit had an average value of 283.95 crores with an average annual growth rate of -9.96%. The total sales of the firm had a mean value of 41939.90 crores with an average annual growth rate of -9.51%. The total sales of the firms highest in 2010-11 and least in 2014-15 with value of 68854.49 crores and 18241.50 crores. The ratio had a standard deviation with value of 0.33.

Relation between Liquidity & Profitability

Testing of 1st Null Hypothesis

Table 7

Statement for Calculation of Rank Correlation Between Liquidity & Profitability

Years	Liquidity Ratio	R1	Profitability	R2	D=R1-R2	D2
2010	1.42	2	.0739	6	-4	16
2011	1.78	1	.4793	4	-3	9
2012	0.65	6	.4196	5	1	1
2013	0.73	3	1.06	2	1	1
2014	0.67	5	1.38	1	4	16
2015	0.69	4	0.74	3	1	1
						44

Sources: Annual Reports of MMTC from 2009-10 to 2014-15

Interpretation

Liquidity ratio is used as an indicator of liquidity and ROCE as for measuring profitability. The spearman's rank coefficient of correlation between current ratio and ROCE has been shown for which the relevant formula has been used. The test used for determine significance of r is "t" test. The Spearman's rank coefficient of correlation (r) between ROCE and risk factor has been calculated. The "t" test is applied for determining significance of r. then computed value of "t" has been compared with the tabulated value of "t".

In the above table r= 0.26 and the value of t = -0.56. The table value of "t" at 5% level of significance for degrees of freedom (where n=6) is equal to 2.132. since the computed value of t is less than the table value the mull hypothesis (H.) is accepted.

Profitability & Risk analysis of MMTC Ltd.

The risk associated with the concern can be. Calculated by the following method !

$$Rk = \frac{(E + LTL) - FA}{CA}$$

Where Rk= risk

E= Equity + Reserve % surplus

L= long term lean

FA= fixed assets & CA= current assets.

In the aggressive approach the current assets are financed by short term sources and in case of conservative approach the current assets are financed by both long term and short term sources. The risk faced by the firm can be measured with the above formula.

Interpretation

Table 5 show the measure of liquidity. During the period of study concern's highest risk of 60% generated a return of 0.4793% and the least risk of 16% generated return of 0.4196% the risk taken by the company showed a decreasing tendency from 2010-11.

Testing of 2nd Null Hypothesis

The spearman's rank coefficient of correlation (r) between ROCE and Risk factor has been calculated. The 't' test is applied for determining significance of r. Then computed value of 't' has been compared with the tabulated value of 't'.

Table 8
Statement showing Risk

(₹ In crores)

Year	Equity + Reserve surplus (E)	Long Term Loans (L)	Fixed Assets (FA)	Current Assets (CA)	Risk (RK)%
2010	1287.15	5164.79	122.46	11421.36	56
2011	1379.74	6083.46	111.36	12281.77	60
2012	1421.40	141.85	97.26	9590.43	16
2013	1340.78	189.31	92.13	5891.54	25
2014	1341.87	192.44	81.77	4096.53	36
2015	1359.20	203.58	57.83	5446.84	28
Arithmetic Mean (x)	1355.02	1995.90	93.80	812142	36.83
Avg. Annual Growth Rate (%)	1.18%	-7.8%	-13.5%	-14.938%	2.36%
Standard deviation(σ))	40.85	3398.18	20.74	8.0374×10^5	16.30

Source: Annual reports of MMTC from 2009-2010 to 2014-15.

In the above table r=-0.15 and value of t= the table value of ‘t’ at 5% level of significance for 4 degrees of freedom (where n=6). Is equal to 2.132 since the compared value of t is more than the table value the hypothesis (H0) is rejected.

Table 9
Statement for Calculation of Rank Correlation between Profitability and Risk

Year	Profitability	R1	Risk	R2	D=(R1-R2)	D2
2010	0.7039	6	56	2	4	16
2011	0.4793	4	60	1	3	9
2012	0.4196	5	16	6	-1	1
2013	1.06	2	25	5	-3	9
2014	1.38	1	36	3	-2	4
2015	0.74	3	28	4	-1	1
						40

Source : Annual reports of MMTC from 2009-10 to 2014-15.

Findings & Suggestions

1. The net working capital of MMTC ltd during the period of study was not satisfactory as it showed frequent fluctuations in its value.
2. Liquidity position of the firm was not adequate because the average value of this current ratio was only 1.52 times which is well below the ideal ratio of 2:1.
3. The Cash position. ratio of the firm with average value of the ratio was 0.99 times. The firm must try to keep regular check on its assets to identify whether. They are staying idle or obsolete.
4. Working capital turnover ratio of the firm was 61.68 times the amount of working capital deployed. The firm should try to improve this saturation or to increase its sales turnover.
5. The operating profitability position of the firm was 0.79% of its turnover. The capital employed in the firm was not appropriately us d. it should stabilized the present profitability position.
6. Applying of student’s t-test between current positions ratio and ROCE it showed that the calculated value of t is less than to table value of t. hence the null hypothesis is accepted and alternative hypothesis was rejected. It says that these was no significant difference between rigidity and profitability of the firm during the period of research study.

a. A firm is required to invest in current assets for a smooth, uninterrupted production and sale. How much a firm will invest in current assets will depends on its operating cycle. The firm’s decision about the level of investment in current assets involves a trade-off between risk and return when the firm invests more in current assets it reduces the risk of liquidity, but losses in terms of profitability, since the opportunity of earning from the excess investment in current assets is lost since the amount and risk involved in capital investment decision are very high. The firm give little importance to the issue’s related with working capital.

7. They should minimize its turnover period. I have also seen that the organization is always trading in 50% to 60% probability of stock. It shows that MMTC is little bit conservative in business operations. But in the present business scenario MMTC should expose itself to risky by which it earn adequate profit on that.
8. As a major player MMTC should also use the various working capital polices to improve its present liquidity position to stable at the time of recession. MMTC try to keep an optimum balance between liquidity and profitability for efficient use of its working capital for better profitability, stability, growth and consistency to hedge risk by which it will get maximum profit so also minimize its risk.

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