Advances in Economics and Business Management (AEBM)
p-ISSN: 2394-1545; e-ISSN: 2394-1553; Volume 4, Issue 4; April-June, 2017, pp. 217-222

http://www.krishisanskriti.org/Publication.html

Emerging Guidelines for Management of Working Capital–Indian Perspective

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Abstract—*Working capital plays a crucial role in the satisfactory ongoing of a firm. Shortage of funds for working capital has caused many businesses to fail and in many cases, has arrested their growth. Working capital should be always at optimum level. Both excessive and inadequate working capitals adversely affect the creditworthiness of a firm. Indian industrial organizations have not always given proper attention to the problems of working capital planning. Not only is their working capital policy indeterminate, planned levels of individual current assets are not always subjective to rigorous practices. Working capital management has, thus, become a basis and broad aspect of judging the performance of a corporate entity. Considering this perspective in this paper, the importance of working capital management through an illustration of Tata Steel Ltd., the first integrated steel plant in Asia and at present, the world's second most geographically diversified steel producer as well as the emerging guidelines in managing the working capital have been studied briefly.*

Keywords*: Working capital, Current assets, Working capital policy.*

1. INTRODUCTION

The importance of working capital in any industrial concern need not be over emphasised. The existence of an adequate supply, carefully administered can make substantial differences between the success and failure of an enterprise. Even in a well-established business with a long history of successful operation, careful attention to the management of working capital can result in greater profitability. Further, the profitability and liquidity of a firm are directly influenced by the way its working capital is managed. Success or failure of any business enterprise largely depends upon the efficiency or inefficiency in the management of its working capital. Inadequacy or mismanagement of working capital is the leading cause of business failures[1]. It is important, therefore, for management to pay particular attention to the planning and control of working capital[2]. Working capital circulates in the business like blood in the human body[3]. This management of working capital is by no means an easy task but presents a stimulating challenge to the financial executive.

Among the Indian industrial organisations, it has been observed through different research studies that in spite of the use of various control techniques there exists a considerable scope for reduction in the size and investments in almost all the segments of working capital. The problems of general management and organisation are procedural in practice, but the problems of transmutation of working capital into income and profit and back into working capital are vital and dynamic aspect of management. That is the reason why the largest portion of finance manager's time is devoted to the management of this segment of capital[4]. Arranging short-term financing, negotiating favourable credit terms, controlling the movement of cash, administering accounts receivables, and monitoring the investment in inventories consume a great deal of time of financial managers. Thus, an efficient and effective management of working capital is the basic and continuing process. As the degree of effectiveness with which it is performed affects future as well as current results no industrial concern should fail to appreciate the vital importance of this aspect of its administration. The above facts, therefore, encourage the author to study the management of working in Tata Steel Ltd., a steel company in India. In the present paper, the importance of working capital management through an illustration of Tata Steel Ltd. as well as the emerging guidelines in managing the working capital has been summed up. In a way, these guidelines also testify the applicability of the principles of working capital management, as suggested by E.W. Walker, in Indian Steel Company.

2. OBJECTIVES OF STUDY

The objectives of this study are to identify the emerging guidelines in managing working capital in a steel company. These guidelines have been drawn upon the basis of the findings of a study "A Study on Working Capital Management in the Selected Company in India" by the author.

3. RESEARCH METHODOLOGY

The researcher, being an external analyst, has to depend basically on secondary data for the examination of the different aspects of working capital management of the selected company i.e. Tata Steel Ltd. Hence, the data and information required for the study have been collected mostly from the annual reports of the company for the period from 2011-12 to 2015-16. The latest year for which data are available is 2015-16. The analysis, therefore, confines itself to the period from 2011-12 to 2015-16. Though there was found apathy or indifference on the part of executives in supplying information, the researcher could overcome the same through moral persuasion and intensive pestering. It was made clear to them that the information so collected will be exclusively used for academic purpose and proper secrecy will be maintained. Editing, classification and tabulation of the financial data collected from the aforesaid source have been done as per the requirement of the study.

For the purpose of analyzing the efficiency of the liquidity management or working capital management of the company under study, the technique of ratio analysis, Motaal's Comprehensive Rank Test, Statistical techniques like Mean, Spearman's Rank Correlation, etc. have been employed. With a view to testing the significance of relationship between liquidity and profitability worked out by the rank correlation coefficient, the "t-test" has also been applied.

The study is organized into different phases as follows: - i) deals with major findings of the study of the author for assessing working capital management of the undertaking; ii) contains emerging guidelines for management of working capital in India and lastly, concluding comment has been drawn for further improvement of the research study.

4. MAJOR FINDINGS OF THE STUDY

1. During the course of analysis, it has been observed that characteristically, current assets have constituted 11.40% of total assets in the selected undertaking. The structural determinants of working capital reveal that the inventory constitutes 40.25% to 68.41% of gross working capital, the receivables constitute 26.24% to 40.92% of gross working capital and the cash & bank balances constitute 5.35% to 33.14% of gross working capital. The contribution of the inventory is highest followed by the receivables and cash & bank balances during the period of study.
2. Inventory, receivables and cash & bank balances average 52.28%, 31.94% and 15.78% respectively of working capital in the undertaking. The structural determinants of working capital reveal that the contribution of the inventory is highest followed by the receivables and cash & bank balances during the period of study. Moreover, during the period of study, an upward trend in the relative proportion of inventory and receivables and a downward trend in that of cash & bank balances have been noticed in practically in almost all the years.
3. The study of the solvency or liquidity with the help of net working capital shows that over a period of time, negative net working capital has increased from Rs. 4018.92 crore to Rs. 6666.50 crore which evidences an unsound liquidity position of Tata Steel Ltd. A comparison of liquid assets with the current liabilities shows that the former is insufficient for covering the current liabilities on every occasion.
4. Judged from the conventional standard of current and quick ratio, the short-term liquidity position of Tata Steel Ltd. is not found satisfactory. Quick or liquid assets are not sufficient to meet currently maturing obligations. A large part of cash is invested in inventory. A large part of cash is invested in inventory. Though the level of cash maintained by the concern is not sufficient for meeting its current liabilities, it may be the policy of the company to maintain a low level of cash & bank balance and more utilization of cash resources.
5. The rank correlation between liquidity and profitability shows that these two are mildly or lightly related to each other. Put it differently, it reflects a lower degree of positive association between the liquidity and profitability of the company.
6. The study of variations of the inventory to sales ratio or inventory holding period reflects that the holding period has increased from 48 days to 61 days. On an average, the period is 52 days. This increase in the holding period affects the liquidity position of the concern and in spite of efforts made by the management, the increases in the period is not a positive sign from the liquidity point of view.
7. Debtors to sales ratio or debt collection period reflects that the collection period has decreased over time indicating moderate credit and collection policy of the company. The study of the credit payment period turns out much slower than planned. Collection period of dues from customers is always less than the period availed of for payment to creditors. Management is trying to keep their receivable ages as low as possible.
8. A lot of funds now invested in inventory and receivables in the steel company are possible to be released for alternative use just by improving the management of their respective working capital investments. As regards the level of cash and bank balances, the steel company needs to increase these balances slightly.
9. An analysis of current assets to sales ratio or turnover of current assets reveals overall efficiency or commercially prudent manner of management. Fostering sales with minimum use of current assets is the policy of the management and management tries to keep watch to reduce lock-up of funds in current assets. Working capital to sales ratio shows that though the position improves, but it cannot be called satisfactory because the undertaking is still working on a negative working capital which may retard the further progress of the concern. So, in spite of

movement in the positive direction, a lot of more still desirable and practicable.

10. The growth that has taken place in the size of current assets in relation to sales points out that during the period management of working capital has improved a little.
11. An analysis of the circulation of various current assets has highlighted that a lot of funds invested in inventory and receivables is possible to be released for alternative use just by improving the management of its respective working capital investments. Specifically, 84.22% of the investments in these two components are lying in total current assets. As regards the level of cash & bank balances, the selected unit needs to increase these balances slightly.
12. An analysis of financing pattern of working capital shows that a large portion of non-current assets are being financed by short-term sources. This highly aggressive policy can be sustained for a short-period only subject to satisfactory profit position. Reliance on short-term sources by adopting aggressive policy not supported by a reasonably accepted return on equity is not in accordance with the general principles of financial management.
13. A study of movement of various items of current assets and liabilities shows that current investments have gone up significantly from 2011-12 to 2015-16. As percentage of current assets, it is not negligible. In case of dire necessity increase in current investments serves as an important source to meet maturing short-term liabilities which in turn point out that Tata Steel Ltd., the selected company has no excessive strain on management of working capital.

5. EMERGING GUIDELINES FOR MANAGEMENT OF WORKING CAPITAL

The above research findings lead to the emergence of certain basic fundamental guideline relating to the problem of managing working capital in Indian industries. No doubt, the conclusions drawn here are based on the study of a single unit of a single industry only, but these are expected to be true in the case of all units and all other industries in India too and the same may be tested and verified through future researches in the field. These emerging guidelines are briefly discussed below:

1. The actual problem of managing working capital relates to the synchronisation of three basic activities in an enterprise i.e. production, marketing and collection. Author's research experience observes that inventory and receivables jointly occupy more than 80% of total current assets in the unit and a large part of these investments was surplus. This problem has been more and more acute in the Indian industries. The solution to this problem basically lies in matching the production, marketing and collection policies in an enterprise. If the management is able to achieve complete synchronisation in these activities, all the problems of over/under-investment in inventory and receivables will be solved. Thus, the real management function relating to working capital is to achieve synchronisation in these three activities of an enterprise in India.
2. The efficiency in working capital management depends upon increased sales volume in relation to investment in current assets. As working capital and sales are functionally related variables, increase in sales volume is desired to improve profitability in any enterprise. The profitability of working capital is also measured in terms of sales growth. In the present study, the profitability of working capital has been reflected in terms of lower sales volume per rupee of current assets investments. Thus, to achieve efficiency in the management of working capital in an enterprise what is required is to have an increase in sales volume in relation to per rupee investment of current assets.
3. The diversion of short-term finance for long-term purposes increases financial risk of the firm and negatively affects the profitability. Hence, proper management of working capital requires use of proper sources of finance and on such terms and conditions that their repayments fit to the internal financial position of the enterprise.
4. The optimum investment in current assets may be determined on the basis of the achievement of maximisation of value of the firm objective. Since, maximisation of shareholders' wealth is the accepted goal of financial management and working capital management is an integral part of financial management, the size of working capital may continue to enhance to the extent that it adds to the maximisation process. Put it differently, the achievement of a trade-off between liquidity and profitability or risk and return aspects of working capital management guides in finding the optimum investment in current assets. Hence, the guiding factor for investment in current assets is the achievement of the goals set in terms of liquidity and profitability aspects or maximisation of owner's wealth.
5. Since credit payment period is always higher than credit collection period, a periodical report of the over-dues are required to be prepared and utmost care may be taken to expedite the payments.
6. Management of working capital is not an isolated part of total management of any enterprise in India, hence every decision of the management in different functional areas is reflected through working capital management. Thus to improve efficiency in working capital management, efficiency and effectiveness in overall management is of utmost necessity. In the present study, relatively low performances on account of working capital management

might be due to its inefficiencies on different fronts in the organisation.

7. For increasing profitability of the Indian industries, controlling cost of goods sold and operating expenses is required. Management of any organisation should try to adopt modern cost reduction techniques to get over the critical situation and to get economies of large-scale production and thus, enhancing the rate of return on capital employed.
8. To match working capital with sales, management should try to build an adequate amount of working capital; excessive working capital, on the other hand, should be invested either in trade securities or should be used to repay borrowings.
9. The Central and State Governments of India should issue necessary instructions to their concerned departments to make timely payments for the goods supplied to them.
10. Sincere efforts are required to speed up the pace of transmutation of working finance and to bring debtors–creditors ratio to the undertaking's advantage.
11. Policies regarding management of inventory, cash and receivables should be formulated afresh in the light of past experience acquired by the undertaking and the guidelines issued by the Government policies, so formulated, are to be strictly implemented.
12. The Research and Development Wing of the company should go in for a certain amount of automation, which is technologically, innovative, should reduce the process of rejection and improve quality. No doubt, owing to modern techniques in the management of working capital, the steel company has started showing positive results, but it may still be said, "PETTY DONE, THE UNDONE VAST".
13. The Association of the company should impress upon the Government for timely action to plug the loopholes in the import policy so as to prohibit import of those goods which are adequately manufactured in the country.
14. The Government of India should come forward and modify the procedure for the issue of import licences and grant of foreign exchange, so that the undertaking of this nature does not have to suffer on account of long lead time that is consumed in the procurement of materials.
15. Coordination and Cooperation among all the departments at different levels are also required to trim the all functions at the project site.
16. To curb the inventory holding period, management should try to dispose of the stock as early as possible so that amount is not unnecessarily blocked in current assets.
17. Besides the above guidelines or suggestions, the problem of working capital management need be considered in the broader context of overall efficiency and profitability of the undertaking, and not in isolation.

6. CONCLUDING COMMENT

The study based on ratio analysis and conclusion drawn on the basis of it has their inherent limitations. In spite of it, it serves as a pointer to the prevailing practices on the basis of which many policy decisions can be taken.

Table 1: Working Capital Position of Tata Steel Ltd. (Rs. In crore)

Particulars	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Current Assets	12819.57	11504.55	11564.60	11994.56	14421.49	12460.95
Growth Rate (%)	-	-	-	-	12.50	-
Liquid Assets	7960.58	6246.91	5556.79	3952.56	7337.68	6210.90
Growth Rate (%)	-	-	-	-	(-7.82)	-
Current Liabilities	16838.49	16488.65	18881.78	16769.18	21087.99	18013.22
Growth Rate (%)	-	-	-	-	-	-
Working Capital	-(4018.92)	-(4983.80)	-(7317.18)	-(4774.62)	-(6666.50)	-(5552.20)
Growth Rate (%)	-	-	-	-	25.24	-
Quick Net Working Capital	-(8877.91)	-(10241.74)	-(13324.99)	-(12816.62)	-(13750.31)	-(11802.31)
Growth Rate (%)	-	-	-	-	54.88	-

Source: - Annual Reports and Accounts; Results computed.

Table 2: Components of Working Capital of Tata Steel Ltd. (%)

Particulars	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Inventory to Current Assets	40.25	48.01	54.17	68.41	50.58	52.28
Receivables to Current Assets	26.61	30.62	35.30	26.24	40.92	31.94
Cash & Bank to Current Assets	33.14	21.37	10.53	5.35	8.50	15.78

Source:- Annual Reports and Accounts; Results computed.

Table 3: Statement of Working Capital Ratios of Tata Steel Ltd.

Particulars	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Current Assets to Total Assets (%)	13.32	11.25	10.39	10.35	11.70	11.40
Debt-Equity Ratio (Time)	0.45	0.47	0.43	0.39	0.44	0.44
Current Liabilities to Current Assets (%)	131.35	143.32	163.27	139.81	146.23	144.80
Current Liabilities to Total Funds (%)	21.22	19.23	20.42	16.92	20.65	19.69
Current Assets to Sales (%)	37.78	30.12	27.73	28.71	37.74	32.42
Working Capital to Sales (%)	- (48.87)	- (48.24)	- (72.95)	- (11.43)	- (17.45)	-(39.79)
Debtors to Sales (Times)	51.10	44.91	53.21	66.21	67.97	56.68
Debt Collection period (Days)	7	8	7	6	5	6
Credit Payment Period (Days)	261	225	302	225	261	255
Inventory to Sales (Times)	7.62	8.05	7.71	5.79	6.03	7.04
Inventory Holding Period (Days)	48	45	47	63	61	52
Current Ratio (Time)	0.93	0.86	0.57	0.62	0.52	0.70
Quick Ratio (Time)	0.69	0.61	0.32	0.27	0.32	0.44
Return on Equity (%)	12.72	9.17	10.48	9.66	6.95	9.80
Cash Position Ratio (Time)	0.23	0.13	0.05	0.03	0.05	0.10

Source: - Annual Reports and Accounts; Results Computed.

Table 4: Number of Days required to pay Current Debt out of Earnings and Cash Flows of Tata Steel Ltd.

Year	2011-12	2012-13	2013-14	2014-15	2015-16
CLE_1	329	M365	M365	M365	M365
CLE_2	149	232	275	205	M365
CLC_1	N	N	N	N	M365
CLC_2	N	N	N	N	M365

Source:- Annual Reports and Accounts;
Note:- i) 'N' indicates negative cash flows; ii) M365 indicates more than 365 days; iii) Results computed.

Table 5: Statement of Liquidity in order of Ranking of Tata Steel Ltd.

Year	Inventory to Current Assets (%)	Receivables to Current Assets (%)	Cash & Bank to Current Assets (%)	Liquidity Rank			Total Rank	Ultimate Rank
	A	B	C	A	B	C	(A+B+C)	
2011-12	40.25	26.61	33.14	1	4	1	6	1
2012-13	48.01	30.62	21.37	2	3	2	7	2
2013-14	54.17	35.30	10.53	4	2	3	9	4
2014-15	68.41	26.24	5.35	5	5	5	15	5
2015-16	50.58	40.92	8.50	3	1	4	8	3

Source: - Annual Reports and Accounts; Results Computed.

Table 6: Rank Correlation between Liquidity and Profitability of Tata Steel Ltd

Year	Current Assets to Total Assets (%)	Liquidity Rank (r_1)	Return on Capital Employed (%)	Profitability Rank (r_2)	(r_1– r_2) d	d^2
2011-12	13.32	1	14.77	1	0	0
2012-13	11.25	3	12.80	3	0	0
2013-14	10.39	4	13.37	2	2	4
2014-15	10.35	5	9.25	4	1	1
2015-16	11.70	2	9.03	5	-(3)	9 $\sum d^2 = 14$

Source: Annual Reports and Accounts; Results computed.

$$R^1 = 1 - \frac{6\{\sum d^2 + \sum(t^3 - t)\}/12}{n^3 - n} = 1 - \frac{6\{14+0\}}{5^3 - 5} = 1 - \frac{84}{120} = \frac{36}{120} = 0.3$$

Where, d = difference in the ranks of an individual in the two characters;
t = number of individuals in a tie; and n = number of individuals.

7. ACKNOWLEDGEMENT

I record my regards and respect to my late parents, uncle and elder brothers who were the source of constant inspiration in my academic life. I still remember their inspiration from core of heart. I humbly dedicate this paper to them.

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