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Working capital analysis
A Study of Singareni Collieries Company Limited

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Abstract : *Whatever be the size of a business, working capital is the life blood and controlling nerve centre of every business. Thus, working capital management is a very significant facet of financial management. Both excessive as well as inadequate working capital positions are dangerous from the firm's point of view. Excessive working capital means idle funds which earn no profits for the enterprise. Paucity of working capital not only impairs firm's profitability but also results in production interruption and inefficiencies. An overall control over working capital can ensure a proper functioning of the business operations. Working capital is that proportion of total capital of an enterprise which is employed in short term operations. It has two concepts. |Gross working capital and Net working capital. Gross working capital represents the amount of funds invested in current assets while net working capital refers to the excess of current assets over current liabilities. The former presents the financial manager with the problem of how to manage the individual components which comprise the list of current assets. However, the latter is the qualitative concept which indicates not only the margin of protection available to the short term creditors but also suggests the need for financing a part of working capital requirements out of permanent sources of funds.*

Key words: *Working Capital, SCCL, Current Assets Turnover, Inventory Turnover, Current Ratio.*

INTRODUCTION

Funds are the wheels on which depends the successful movement of business-cart. The need for funds may arise for short-term as well as long-term purposes. Although it is very difficult to draw a line of distinction between the two, experts in the field have done this for the purpose of proper understanding. Investment of short-term funds generally assumes the form of working capital, the management of which involves the administration of such assets as cash, marketable securities, receivables, inventories and also the administration of current liabilities. The skills of the working capital management are rather unique, through their goals are the same as in managing the current assets individually, i.e., to make an efficient use of funds for minimizing the risk of loss to attain the profit objective. Management of working capital involves deciding upon the amount and the composition of the current assets and findings the way out to finance these assets. Therefore, "proper management of working capital is very important for the success of an enterprise."

CONCEPT OF WORKING CAPITAL:

The term working capital has been quite controversial in the financial accounting terminology, as it does not have universally accepted definition. Qyite a few financial experts define it in the narrow and incomplete sense as the difference between current assets and current liabilities whereas some others have defined it in a broad sense as the total of current assets employed.

QUANTITATIVE OR THE GROSS WORKING CAPITAL APPROACH

According to this approach the quantum of the working capital employed in a business concern is equal to the total current assets employed. In the words of E.W. Walker "The gross working capital refers to the amount of funds invested in current assets that are employed in the business process." It is one of the principal functions of management to provide the right amount of working capital at the right time in order to realize optimum return on the amount invested. To B.R. Rao, "Gross working capital represents the totality of fluctuating funds invested in the entire current assets."J.F. Weston and E.F. Brigham also observe "Working capital refers to a firm's investment in short-term assets, cash, short-term securities, accounts receivables and inventories."

QUALITATIVE OR THE NET WORKING CAPITAL APPROACH

The qualitative or the net working capital approach indicates the relationship between current assets and current liabilities. Net working capital as H.G. Guttmann says is, "...the excess of current assets over current liabilities." R.D. Kennedy and S.Y. McMullen hold the same view when they say "Net working capital represents the amount of the current assets which would remain if all the current liabilities were paid." Thus, it shows the possible availability of current assets in excess of current liabilities. According to this concept, current assets must exceed the current liabilities and then only there can be working capital. If the current liabilities exceed the current asse3ts, there is no working capital but there is a working capital deficit. Thus, the qualitative approach gives a clear position of short-term debt paying capacity of a business.

Both the approaches have their own claims. Still there are some points which give a superior position to the qualitative approach because of its analytical value.

FIXED AND VARIABLE WORKING CAPITAL

In every business, there is always a need for the minimum level of current assets required permanently to carry on its business operations. This minimum level of current assets is known as permanent or fixed working capital on the other hand, the variable working capital is the funds need to support the changing and sales activities.

SCCL - AN OVERVIEW

Coal is the world's most abundant, safe, secure, clean and cost effective fossil fuel. Singareni Collieries Company Limited (SCCL) is situated in southern part of India and having its operations in four districts of northern Telangana i.e., Khammam, Karimnagar, Warangal & Adilabad. SCCL is supplying coal to most of the customers situated in Telangana and to some extent in southern parts of India and some parts in Maharashtra. SCCL is operating 29 underground mines and 19 opencast

mines to meet the linkage requirements of major power (66%), Cement (13.5%), Captive Power (6.6%), Sponge Iron (3.1%) and other customers (10.8%). SCCL is mainly supplying coal to four major power utilities i.e., NTPC Ramagundam, T-GENCO power utilities of T.S., Karnataka Power Corporation of Karnataka and Parli power station of MAHAGENCO. Apart from the above major power utilities, SCCL is also supplying coal to 57 cement units, 32 captive power plants and 53 sponge iron units through Fuel Supply Agreements (FSA).

OBJECTIVES OF THE STUDY

The objectives for which the study has been undertaken are:

1. To analyse the working capital and its trend by keeping the base year as 100.
2. To examine the efficiency of different components of working capital by computing selected working capital efficiency ratios.
3. To measure the liquidity position of the unit by calculating major liquidity ratios.

DATA AND METHODOLOGY

In order to attain the objectives of study secondary data has been used. The data needed for this study has been extracted from annual reports of SCCL. Data stretches over a period of six years starting from the year 2010-11 to 2015-16. The collected data has been organized within the form of tables so important inferences may well be drawn. For analyzing the working capital, the techniques of trend and ratio analysis techniques have been used.

WORKING CAPITAL ANALYSIS OF SCCL

The analysis of the working capital is the touch stone to test the efficiency with which the short-term funds are employed. It helps to evaluate the productivity of the short-term funds employed. A company as a general policy wants to hold in balance as small a quantity of the working capital so long as undue solvency risks are not imposed on it. This is a logical approach indicating that the working capital is a means to an end and not an end in itself. For proper study of working capital of SCCL, the following analysis has been made.

I. Working Capital Trend Analysis

II. Efficiency Analysis; and

III. Analysis of Liquidity Position

I. WORKING CAPITAL TREND ANALYSIS

The working capital trend analysis represents a picture of variation in current assets, current liabilities and net working capital over a period of time. Such an analysis enables us to study the upward and downward trend in current assets and current liabilities and its affect on working capital position. The trend analysis is a tool of financial appraisal where the changes in the factors are compared with the base year, keeping the base year as 100. Trends in working capital of SCCL have been computed and are shown in Table-1.

Table-1: Working Capital and its Trend in SCCL during 2010-11 to 2015-16

(Rs. in Crores)

Year	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Current Assets (a)	3802.04	5736.82	5902.78	6354.46	6485.40	8118.24
Current Liabilities (b)	2661.32	2971.13	3322.65	3767.45	4051.84	6475.21
Net Working Capital (a-b)	**1140.72**	**2765.69**	**2580.13**	**2587.01**	**2433.56**	**1643.03**
• **Trend Percentages**						
Current Assets	100.00	150.89	155.25	167.13	170.58	213.52
Current Liabilities	100.00	111.64	124.85	141.56	152.25	243.31
Net Working Capital	**100.00**	**242.45**	**226.18**	**226.79**	**213.34**	**144.03**

Source: Annual Reports & Accounts of SCCL.

- ***For calculating trend percentages, 2010-11 current assets, current liabilities and net working capital has been taken as 100.***

The data of the Table-1 reveals that the current assets of SCCL have shown an upward trend during the period of study. They have been increased from Rs. 3802.04 crores in 2010-11 to Rs. 8118.24 crores in 2015-16. The current liabilities have also shown an upward trend and they were Rs. 2661.32 crores in 2010-11 which have been increased to Rs. 6475.21 crores in 2015-16.

The trend of current assets has shown a continuous increase over the period of study from 100 per cent in 2010-11 to 213.52 per cent in 2015-16. The peak points obtained for current assets were 170.58 per cent and 213.52 per cent in 2014-15 and 2015-16 respectively.

The trend of current liabilities has also shown a continuous increase up to 2015-16 when it reached to 243.31 per cent over the base year 2010-11. However, the increase in the trend of current assets is slow as compared to the current liabilities except in the last year 2015-16 when it was 243.31 per cent as against 213.52 per cent in respect of trend of current asset.

The trend of new working capital of the company has shown a declining trend over the period of study from 242.45 per cent 2011-12 to 144.03 per cent in 2015-16. In 2011-12 the net working capital trend raised to 242.45 per cent as compared to the base year. There after it marked a significant decrease and fell down to 144.03 per cent in 2015-16.

It can be concluded that though there was a continuous raise in current assets and current liabilities over the

period of study, the net working capital of the company shows a continuous downward movement except in the year 2013-14. During this year the net working capital has slightly increased as compared to the previous year 2012-13.

II. EFFICIENCY ANALYSIS

Efficiency analysis in the context of working capital means to examine the efficiency with which different components of working capital are used in an enterprise. Efficient rotation of the working capital will lead to higher profitability. To measure the efficiency in the use of working capital of SCCL the following ratios are considered useful.

CURRENT ASSETS TURNOVER RATIO

This current assets turnover ratio ascertains the efficiency with which currents are used in a business. Professor Guttmann observes that "Current assets turnover is to give an overall impression of how rapidly the total investment in current assets is being turned." This ratio is strongly associated with efficient utilization of costs, receivables and inventory. In the case of SCCL this ratio will be obtained by dividing Net Sales by the current assets. A higher value of this ratio indicates greater circulation of current assets while a low ratio indicates a stagnation of the flow of current assets.

Table 2 shows the position of current assets turnover ratio of the SCCL during the period of study.

Table-2: Current Assets Turnover Ratio in SCCL during 2010-11 to 2015-16

(Rs. in Crores)

Years	Net Sales	Current Assets	Ratio (in Times)
2010-11	8165.81	3802.04	2.15
2011-12	9238.04	5736.82	1.61
2012-13	10128.29	5902.78	1.72
2013-14	9782.03	6354.46	1.54
2014-15	11371.67	6485.40	1.75
2015-16	12570.37	8118.24	1.55
Average	**10209.37**	**29634.54**	**1.72**

Source: Annual Reports & Accounts of SCCL.

The current assets turnover ratio in SCCL showed a decreasing tendency during the period covered by this study. In the first year of analysis (2010-11) the turnover was 2.15 times which declined to 1.61 times in 2011-12. The reason of this sharp decline in 2011-12 over the previous year was that there was a decline in current assets. In 2012-13 the ratio raised to 1.72 times. After showing a marginal decrease to 1.54 times in 2013-14, it again jumped to 1.75 times in 2014-

15. In 2015-16 again there was a sharp decrease in the ratio when it dropped to 1.55 times. The reason of this trend was mainly due to the sharp rise in the current assets. To conclude it may be observed that the company was not able to maintain a uniform policy of current assets during the period of study. The average of current assets turnover ratio was 1.72 times during the period of study.

INVENTORY TURNOVER RATIO

The term turnover of inventories has reference to the number of times that the inventories were sold and replaced during the accounting period. In the words of S.C. Kuchhal, "This relationship expresses the frequency with which average level of inventory investment is turned over through operations." Inventory turnover ratio is calculated by dividing the net sales by the inventory. A high ratio of turnover inventory indicates fast movement in inventories. The larger is the amount of net sales and smaller the amount of capital tied-up in inventory, the better is the operating cycle. A low inventory turnover implies excessive inventory levels than are warranted by production and sales activities, or slow moving of obsolete inventory. The ratio is computed and presented in Table-3.

Table-3: Inventory Turnover Ratio in SCCL during 2010-11 to 2015-16

(Rs. In Crores)

Year	Net Sales	Inventory	Ratio (in Times)
2010-11	8165.81	473.53	17.24
2011-12	9238.04	575.97	16.04
2012-13	10128.29	671.43	15.08
2013-14	9782.03	1154.12	8.48
2014-15	11371.67	1137.19	10.00
2015-16	12570.37	1321.14	9.51
Average	**10209.37**	**888.90**	**12.73**

Source: Annual Reports & Accounts of SCCL.

In the case of SCCL the inventory turnover ratio was 17.24 times in 2010-11 indicating improvement in the efficiency with which the inventory was managed. Later, in 2011-12, 2012-13 and 2013-14 the ratio went down to 16.04 times, 15.08 times and 8.48 times respectively. It marginally improved to 10.00 times in 2014-15 but again dropped to 9.51 times in 2015-16. The fluctuations were noticed due to the fact that while the sales had been continuously increasing except in 2013-14, the inventory position was showing upward trend during the period of study except in 2014-15. Moreover, the level of inventory increased more sharply than the increase in sales during the last three years period of study from 2013-14 to 2015-16. Further, the company can maintain a high turnover of inventory during the first three years and, thus, make efficient utilization of available funds which will result in the improvement of profitability. On an average turnover of inventories was 12.73 times.

DEBTORS TURNOVER RATIO

Whenever a business extends credit it its customers, outstanding debts (debtors) are created in the accounts. A firm's liquidity position and working capital would be considered as efficiently managed when the debtor turnover is high and the number of days of the outstanding creditors is fewer. To manage a firm efficiently a trade off is to be maintained between the express profits received from the debtors outstand and the amount o of interest incurred on the blocked funds. Eugene M. Learner defines this ratio as "The ratio of total sales to outstanding receivables." This ratio in the case of SCCL is obtained by diving Net Sales by debtors. Generally the higher the value of the debtors turnover, the more efficient is the management of sales and in turn the more efficient the management of liquidity position.

AVERAGE COLLECTION PERIOD

Another way of expressing this relationship is to find out the "Average Collection Period." According to I.M. Pandey, "The average collection period represents the average number of days for which the firm most wait after making a sale before collecting cash from the customers." In the form of formula this ratio can be represented as Days in a Year/Debtors Turnover Ratio. Table-4 depicts the debtors turnover ratio and average collection period of the SCCL during the period of study.

Table-4: Debtors Turnover Ratio and Average Collection Period in SCCL during 2010-11 to 2015-16

(Rs. In Crores)

Year	Net Sales	Debtors	Ratio (in Times)	Average Collection Period (in days)
2010-11	8165.81	320.48	25.48	14
2011-12	9238.04	802.59	11.51	32
2012-13	10128.29	1225.18	8.27	44
2013-14	9782.03	907.68	10.78	34
2014-15	11371.67	2149.35	5.29	69
2015-16	12570.37	4195.87	3.00	122
Average	**10209.37**	**1600.19**	**10.72**	**53**

Source: Annual Reports & Accounts of SCCL.

Table-4 indicates that in the SCCL the debtors turnover ratio has shown decreasing trend from 25.48 times in 2010-11 to 3.00 times in 2015-16. Similarly, the average collection period or receivables has also shown an unfavorable (increasing) trend. The average collection period was 14 days in 2010-11 which was increased to 32 days and 44 days in 2011-12 and 2012-13 respectively. This indicates that the inefficiency of the management in collecting its debts in comparatively shorter period. Then later during the year 2013-14 the ratio increase and the collection period decreased to 34 days. In

2014-15 and 2015-16 the debtors turnover ratio was suddenly come down to 5.29 times and 3.00 times respectively while there was a sharp increase in the net sales. In the last two years period of study i.e., 2014-15 and 2015-16 the unfavorable increase is find in the average collection period and reached as high as 69 days and 122 days respectively. On an average the debtors turnover ratio was 10.72 times and the average collection period is 53 days.

III. ANALYSIS OF LIQUIDITY POSITION

Liquidity has been defined differently by different authors. J.F. Solomon and G. Donald define it as "The ability of the firm to meet its current obligations as they fall due." According to Herbert Mayo, "Liquidity is the ease with which assets may be converted into cash without loss." A sound liquidity position is of primary concern to management from the point of view of meeting current liabilities as and when they mature as well as for answering continuity of operations. Thus, liquidity is the base of continuous business operations. To measure the liquidity position of the SCCL, the following two ratios have been considered useful.

CURRENT RATIO

The most widely used measure of liquid position of an enterprise is the current ratio i.e., the ratio of the firm's current assets to current liabilities. Current ratio commands very high esteem in the sphere of the accounting information. Learner observes: "The current ratio is important because all liabilities are ultimately paid with funds generated by the liquidation of assets." The current ratio is considered a powerful parameter of a company's solvency and a reliable prognosticator of potential liquidity. Current ratio is the indicator of relationship between total of current assets and current liabilities. Current assets would include cash, inventory, sundry debtors, loans and advances and current liabilities would include sundry creditors, deposits, interest accrued but not due. The higher the ratio the larger the amount of the rupees available per rupee of current liability, and accordingly a 2 to 1 ratio is taken to represent a good short term solvency position. In the SCCL this ratio is derived from dividing current assets by current liabilities.

QUICK RATIO

If the inventory of stock is very high which cannot be easily converted into cash or if the inventory is overvalued, a high current ratio will not guarantee repayment of current liabilities. To avoid these difficulties a more efficient measure of liquidity is available to known as the quick ratio. According to Learner "this ratio ignores inventories, since they are the least liquidity of a firm's current assets." This ratio provides a more stringent test of solvency. Quick assets would include cash in hand, cash at bank, sundry debtors and marketable investments. Current liabilities would include sundry creditors and other amounts due but not paid. The formula for derivation of this ratio is quick assets by current liabilities. Normally this ratio should be 1:1 as a healthy sign of short-term financial strength to pay off current liabilities at short notice. The liquidity ratios of SCCL have been computed and presented in Table-5.

Table-5: Liquidity Ratios in SCCL during 2010-11 to 2015-16

(Rs. In Crores)

Year	Current Assets	Quick Assets*	Current Liabilities	Current Ratio (in Times)	Quick Ratio (in Times)
2010-11	3802.04	3328.51	2661.32	1.43	1.25
2011-12	5736.82	5160.85	2971.13	1.93	1.74
2012-13	5902.78	5231.35	3322.65	1.78	1.57
2013-14	6354.46	5200.34	3767.45	1.69	1.38
2014-15	6485.40	5348.21	4051.84	1.60	1.32
2015-16	8118.24	6797.10	6475.21	1.25	1.05
Average	**29634.54**	**5177.73**	**3874.93**	**1.61**	**1.39**

Source: Annual Reports & Accounts of SCCL.

Quick Assets represent Current Assets (-) Inventory.

Table-5 reveals that in the SCCL the current financial position was satisfactory during the period of study. However, throughout the period, current ratio has not much deviated from the accepted norm i.e., 2:1 except in 2010-11 and 2015-16 when it was 1.43 times and 1.25 times respectively. In the year 2010-11 the current assets decreased in a greater proportion as compared to current liabilities. A sharp decline in the ratio was recorded in 2015-16 i.e., 1.25 times in comparison to 1.60 times in 2014-15. This was due to the sharp increase in the current liabilities. On an average the ratio was 1.61 times.

In the SCCL, the liquidity position was also satisfactory during the period of study. But from 2011-12 to 2012-13, the ratio was quite high being 1.74 times and 1.57 times respectively. The reason of this rise could be traced to a sharp increase in quick assets. In 2015-16 the ratio was quite near the standard norm of 1:1 ratio i.e., 1.05 times. It can be concluded that the company has been trying to manage its quick assets more efficiently during the period of study. On an average the quick ratio was 1.39 times.

CONCLUSION

Working capital management is a very significant facet of financial management. Both excessive as well as inadequate working capital positions are dangerous from the firm's point of view. Excessive working capital means idle funds which earn no profits for the enterprise. Paucity of working capital not only impairs firm's profitability but also results in production interruption and inefficiencies. Though there was a continuous raise in current assets and current liabilities over the period of study, the net working capital of the SCCL shows a continuous downward movement. Moreover, the company was not able to maintain a uniform policy of current assets. It is also evident that the company can maintain a high turnover of inventory during the first three years and, thus, make efficient utilization of

available funds which will result in the improvement of profitability. The average collection period or receivables has also shown an unfavorable (increasing) trend. This indicates that the inefficiency of the management in collecting its debts in comparatively shorter period. Lastly, the current financial position was satisfactory and the company has been trying to manage its quick assets more efficiently during the period of study.

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