



Working Capital in Singareni Collieries Company Limited : A Critical Analysis

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Abstract:

Working capital in business is considered as life blood in human body. It is a capital required to operate business on day to day basis and it varies according to the nature of business, production, sales policies, turnover, credit period etc. In the wave of globalization and economic liberalization, growth and survival stability of the enterprises largely depend on the effective management of working capital, which has a direct bearing on the economic wellbeing of the country as a whole. Thus, it is felt that there is a need to manage various components of working capital in such a way that an adequate amount of working capital is to maintaining for smooth running of the wheel of an enterprise for the fulfillment of twin objectives of liquidity and profitability with the volatility of various components of working capital in the firms operating environment. The emphasis of the present study is to measure & analyze the operating risk, financial risk, and total risk by way of computing the Gross Profit Margin Ratio, Net Profit Ratio, Operating Profit Ratio, Return on Capital Employed Ratio, Return on Net Worth Ratio, Return on Assets.

Key words: Working capital, profitability, SCCL, turnover, Gross Profit Margin Ratio, Net Profit

Introduction:

According to universal unaccepted accounting terminology, the term of 'work capital' is narrow and incomplete sense as the difference between current assets and current liabilities. But some other has defined it in a broad sense as the total of current assets employed. In view of E.W. Walker the term working capital is "the grow working capital refers to the amount of funds invested in current assets that the employed in the business process". In view of Weston and E.F. Bringham "working capital refers to a firm's investment in short term assets, cash,

short term securities, accounts receivable and inventories". Based on above, it can be said that the working capital is 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.

Objective of the Study

- i) To measure and evaluate the working capital turnover of singareni Collieries Company Limited.
- ii) To determine the profitability analysis position.



iii) To find out the degree of association between working capital and profitability, being two key determinants of financial performance, of the company under study.

iv) To establish the linear relationship between working capital and profitability.

Data base and methodology:

The study is based on secondary data collected from the audited Balance Sheet associated with schedules, annexure available in the published annual reports of sccl for the period of 6 years (i.e. from 2007-08 to 2012-13). For the purpose of the study, Journals, Conference proceedings and other relevant documents have also been consulted to supplement the data. In the present study the liquidity and profitability position have been taken into consideration by calculating different key liquidity and profitability ratios in order to judge their financial performance for the period under study.

For assessing the degree of association between the various working capital turnover ratios, profitability ratios, t'' test has been used for the purpose of testing the results obtained empirically.

Statistical Tools Used:

The data collected from the field investigation were coded and then it was processed for simple, t-tests, has processed for Mean, Standard Deviation, T-test and presented significance of liquidity and profitability ratios in the context of implementation efficiency of the employees for which appropriate statistical tests are employed such as T-test and finally conclusion is drawn.

Working Capital Turnover Analysis:

Working Capital Turnover Ratio

$$= \frac{\text{Net Sales}}{\text{Working Capital}}$$

Table – 1: Working capital turnover ratio in SCCL during 2007-2013

| YEARS | NET SALES | WORKING CAPITAL | NET SALES/ WORKING CAPITAL |
|-----------|-----------|-----------------|----------------------------|
| 2007-2008 | 449968 | 43231 | 10.408456890 |
| 2008-2009 | 550040 | 22217 | 24.757618040 |
| 2009-2010 | 685384 | 66669 | 10.280400190 |
| 2010-2011 | 785847 | 180074 | 4.364022568 |
| 2011-2012 | 923804 | 276569 | 3.340229744 |
| 2012-2013 | 1012829 | 258013 | 3.925496002 |

Source: Data compiled from Annual Reports of SCCL

It is apparent from the Table -1 that the SCCL has recorded the working capital turnover ratio during the year 2007-08 as 10.408 and during the year 2008-09 it found higher as 24.757. But

during the years 2009-10, 2010-11 and 2011-12 radically it decreases to 10.280, 4.364, and 3.340 respectively and comparing to the previous year, for the year 2012-13 with a slight increase the



working capital ratio recorded as 3.925. conducted and presented in the following
 To analyze the changes in Working **Table- 2**
 Capital Ratio of the company, t-test is

Table – 2 T-test for working capital turnover ratio

| Mean | Std. deviation | Degrees of freedom | t-value | Significance Level (p-value) |
|--------|----------------|--------------------|---------|------------------------------|
| 9.5127 | 8.11941 | 5 | 2.870 | 0.035 |

Source: Exercised by applying MS-Excel

The Mean value of the working capital turnover ratio of the SCCL is worked out to be as 9.5127 and the Standard Deviation is found as 8.11941. The value of standard deviation presented at table reflects the variation among the working capital ratios and it also shows the lower efficiency in use of working capital to contribute / improve sales. The calculated t-value for the said working capital turnover ratio is worked out to be 2.870 with 5 degrees of freedom and its probability value found as 0.035.

Measurement of profitability:

Operating Profit Ratio:

The operating profit or loss is made by a manufacturing sector from its business activities in a given period. This is further reduced or augmented by adding the business overheads and any ancillary investments to arrive at the profit (or loss) before interest and tax (PBIT).

The net operating income includes net interest income and non-interest income and non-interest expenses.

$$\text{Operating Profit Ratio} = (\text{Profit} / \text{Income}) * 100$$

Table – 3: Operating profit ratio in SCCL during 2007-2013

| YEARS | EBIT | SALES | EBIT/SALES*100 |
|-----------|----------|------------|----------------|
| 2007-2008 | 34886.74 | 449967.92 | 7.753161603 |
| 2008-2009 | 30038.36 | 550039.99 | 5.461122927 |
| 2009-2010 | 42634.63 | 685383.55 | 6.220550522 |
| 2010-2011 | 59741.49 | 785846.76 | 7.602180608 |
| 2011-2012 | 66369.00 | 932223.00 | 7.119433869 |
| 2012-2013 | 61938.00 | 1023175.00 | 6.053509908 |

Source: Data compiled from Annual Reports of SCCL



It is evident from the Table -3 that the SCCL has recorded the operating profit ratio during the year 2007-08 as 7.753 and during the year 2008-09 it found lower as 5.461. But during the years 2009-10, 2010-11 and 2011-12 slightly it increased to 6.220, 7.602 and 7.119 respectively and comparing to the previous year, for the year 2012-13 with a

drastic decrease, the operating profit ratio recorded as 6.053.

To analyze the changes in Operating Profit Ratio of the company, t-test is conducted and presented in the following **Table-4**

Table – 4: T-test for operating profit ratio

| Mean | Std. deviation | Degrees of freedom | t-value | Significance Level (p-value) |
|--------|----------------|--------------------|---------|------------------------------|
| 6.7017 | 0.92538 | 5 | 17.739 | 0.000 |

Source: Exercised by applying MS-Excel

The Mean value of the operating profit ratio of the SCCL is worked out to be as 6.7017 and the Standard Deviation is found as 0.92538. The value of standard deviation presented at table reflects the variation among the operating profit ratios and it also shows profitability of organization. The calculated t-value for the said return on assets ratio is worked out to be 17.739 with 5 degrees of freedom and its probability value found as 0.000.

statistically highly significant. Hence, it can be interpreted that the organization had profitability.

i) Gross Profit Margin Ratio.

$$\text{Gross profit Margin} = \frac{\text{Gross profit}}{\text{Net Sales}} \times 100$$

On the whole, the data pertaining to return on assets ratio reveals that the computed t-value is found to be

A higher ratio may reflect an increase in sales without corresponding increase in operating costs. The data relating to Gross Profit Margin ratio of the SCCL from 2007-08 to 2012-13 has been given in the following table.

Table – 5: gross profit margin ratio in SCCL during 2007-2013

| YEARS | NET SALES | GROSS PROFIT | RATIO |
|-----------|-----------|--------------|----------|
| 2007-2008 | 449968 | 29022.9400 | 6.450001 |
| 2008-2009 | 550040 | 24806.8100 | 4.510001 |
| 2009-2010 | 685384 | 39683.7336 | 5.790000 |
| 2010-2011 | 785847 | 35127.3609 | 4.470000 |
| 2011-2012 | 923804 | 35843.5952 | 3.880000 |
| 2012-2013 | 1012829 | 55806.8779 | 5.510000 |

Source: Data compiled from Annual Reports of SCCL



It is noticeable from the Table- 5 that the SCCL has traced the gross profit margin ratio during the year 2007-08 as 6.450 and with a decrease it is noted as 4.510 during the year 2008-09. For the financial year 2009-10 it increased to 5.790 whereas during the preceding years 2010-11 and 2011-12 with a gradual decrease it is recorded as 4.470 and 3.880

respectively. By 2012-13 it again raises to 5.510.

To analyze the gross profit margin Ratio of the company, t-test is conducted and presented in the following **Table-6**

Table – 6

T-Test For Gross Profit Margin Ratio

| Mean | Std. deviation | Degrees of freedom | t-value | Significance Level (p-value) |
|--------|----------------|--------------------|---------|------------------------------|
| 5.1017 | 0.96954 | 5 | 12.889 | 0.000 |

Source: Exercised by applying MS-Excel

The Mean value of the gross profit margin ratio of the SCCL is found as 5.1017 and the Standard Deviation is found as 0.96954. The value of standard deviation obtained from the table reflects the variation among the year-wise gross profit margin ratios and it also shows the higher efficiency of the production / trading operations apart from costing point of view and also higher efficiency to earn the trading profit. The calculated t-value for the said cash position ratio is

worked out to be 12.889 with 5 degrees of freedom and its probability value found as 0.000. The data pertaining to gross profit margin ratio divulge that the computed t-value is found to be statistically highly significant. Hence, it can be interpret that the organization is having higher efficiency of the production / trading operations apart from costing point of view and also higher efficiency to earn the trading profit.

ii) **Net Profit Ratio:**

$$\text{Net profit Ratio} = \frac{\text{Net Profit After Tax}}{\text{Net Sales}} \times 100$$

Table – 7: Net Profit Ratio in SCCL during 2007-2013

| YEARS | NET PROFIT | SALES | NETPROFIT/SALES*100 |
|-----------|------------|------------|---------------------|
| 2007-2008 | 17617 | 449967.92 | 3.915167997 |
| 2008-2009 | 13283 | 550039.99 | 2.414915323 |
| 2009-2010 | 26801 | 685383.55 | 3.910365225 |
| 2010-2011 | 35137 | 785846.76 | 4.471227953 |
| 2011-2012 | 35827 | 932223.00 | 3.843179153 |
| 2012-2013 | 39411 | 1023175.00 | 3.851833753 |

Source: Data compiled from Annual Reports of SCCL



It is noticeable from the Table 6.27 that the SCCL has traced the net profit ratio during the year 2007-08 as 3.915 and 2008-09 as 2.414. Interestingly by steadily increasing during the preceding years, 2009-10 and 2010-11 it recorded as 3.910 and 4.471 respectively.

Interestingly for the year 2011-12 and 2012-13 it is slightly decreased and traced as 3.843 and 3.851. To analyze the Net Profit Ratio of the company, t-test is conducted and presented in the following Table-8

Table – 8: T-Test for net Profit Ratio

| Mean | Std. deviation | Degrees of freedom | t-value | Significance Level (p-value) |
|--------|----------------|--------------------|---------|------------------------------|
| 3.7344 | 0.68894 | 5 | 13.278 | 0.000 |

Source: Exercised by applying MS-Excel

The Mean value of the net profit ratio of the SCCL is found as 3.7344 and the Standard Deviation is found as 0.68894. The value of standard deviation obtained from table reflects the variation among the years-wise net profit margin ratios and it also shows higher control of costs and /or promotion of sales and ultimately the efficiency of operating the firm. The calculated t-value for the said

net profit ratio is worked out to be 3.7344 with 5 degrees of freedom and its probability value found as 0.000. The data pertaining to net profit ratio divulge that the computed t-value is found to be statistically highly significant. Hence, it can be interpreted that the organization is having good control of costs and /or promotion of sales and ultimately the efficiency of operating the firm.

iii) Return on Capital Employed Ratio:

$$\text{Return on Capital Employed} = \frac{\text{Profit after Tax}}{\text{Capital employees}} \times 100$$

Table – 9: Return on Capital Employed Ratio in SCCL during 2007-2013

| YEARS | PROFIT AFTER TAX | CAPITAL EMPLOYED | RATIO % |
|-----------|------------------|------------------|--------------|
| 2007-2008 | 17617 | 302028 | 5.832902910 |
| 2008-2009 | 13283 | 302133 | 4.396408204 |
| 2009-2010 | 26801 | 272286 | 9.842959241 |
| 2010-2011 | 35137 | 328536 | 10.695022770 |
| 2011-2012 | 35827 | 687094 | 5.214279269 |
| 2012-2013 | 40114 | 830173 | 4.832004895 |

Source: Data compiled from Annual Reports of SCCL

Table 9 illustrates the return on capital ratio of SCCL in which the percentage during the year 2007-08 recorded as

5.832 and it decreases during 2008-2009 as 4.396. Later it hikes to 9.842 and 10.695 during 2009-10 and 2010-11



respectively. Surprisingly, during the year 2011-2012 and 2012-13, the return on capital employed ratio has drastically fallen down to 5.214 and 4.832. To observe the changes in return on capital

employed ratio of the company, t-test is used and the result of t-test for total debt to total assets ratio of company has been presented in the following *Table-10*

Table – 10: T-test for return on capital employed ratio

| Mean | Std. deviation | Degrees of freedom | t-value | Significance Level (p-value) |
|--------|----------------|--------------------|---------|------------------------------|
| 6.8023 | 2.73974 | 5 | 6.082 | 0.002 |

Source: Exercised by applying MS-Excel

The Mean value of the return on capital employed ratio of the SCCL is worked out to be as 6.8023 and the Standard Deviation is found as 2.73974. The value of standard deviation presented in table reflects the variation among the year-wise return on capital employed ratios and it also shows the spread as regards the higher efficient utilization of capital employed by firm towards improvement of sales at a minimum proportionate rate. The

calculated t-value for the said return on capital employed ratio is worked out to be 6.082 with 5 degrees of freedom and its probability value found as 0.002. On the whole, the data pertaining to return on capital employed ratio, reveals that the computed t-value is found to be statistically significant. Hence, it can be interpreted that the organization is higher efficient utilization of capital employed by firm towards improvement of sales at a minimum proportionate rate.

iv) **Return on Net Worth Ratio:**

$$\text{Return on Net Worth} = \frac{\text{Profit After Tax}}{\text{Net worth}} \times 100$$

Table – 11: Return on net worth ratio in SCCL during 2007-2013

| YEARS | PROFIT AFTER TAX | NET WORTH | RATIO % |
|-----------|------------------|-----------|-------------|
| 2007-2008 | 17617 | 216258 | 8.14628823 |
| 2008-2009 | 13283 | 243738 | 5.44970419 |
| 2009-2010 | 26801 | 262455 | 10.21165533 |
| 2010-2011 | 35137 | 287520 | 12.22071508 |
| 2011-2012 | 35827 | 313275 | 11.43627803 |
| 2012-2013 | 40114 | 343250 | 11.68652586 |

Source: Data compiled from Annual Reports of SCCL

Exemplifying from the table it is noted that the return on net worth ratio

of SCCL during the year 2007-08 it is found as 8.146 and during the year 2008-



09 as 5.449 and further it is progressively increases till 2010-2011 as 10.211 and 12.220 respectively. For the year 2011-12 and 2012-13 the dwindle tendency recorded as 11.436 and 11.686. On the

whole observance of return on net worth ratio of the company, data analyzed for t-test and the result of t-test for return on net worth ratio of company has been presented in the following Table-12

Table – 12: T-Test for Return on Net worth Ratio

| Mean | Std. deviation | Degrees of freedom | t-value | Significance Level (p-value) |
|--------|----------------|--------------------|---------|------------------------------|
| 9.8585 | 2.60403 | 5 | 9.273 | 0.000 |

Source: Exercised by applying MS-Excel

The Mean value of the return on net worth ratio of the SCCL is found as 9.8585 and the Standard Deviation is found as 2.60403. The value of standard deviation obtained from the table reflects the variation among the years-wise return on net worth ratios and it also shows the spread as regards the increase in earning on the funds invested by the shareholders. The calculated t-value for the said return on net worth ratio is worked out to be 9.273 with 5 degrees of freedom and its probability value found as 0.000. By and large, the data

pertaining to return on net worth ratio divulge that the computed t-value is found to be statistically highly significant. Hence, it can be interpret that the shareholders are earning on the funds invested by the shareholders.

v) **Return on Assets:**

The ratio reveals the efficiency of utilization of fixed and current assets towards increasing earnings power of shareholders. The higher the ratio, the higher the efficiency in utilization of assets for profit earnings.

Table – 13: Return on assets ratio in SCCL during 2007-2013

| YEARS | EBIT | TOTAL ASSETS | EBIT/TOTAL ASSETS*100 |
|-----------|----------|--------------|-----------------------|
| 2007-2008 | 34886.74 | 545951.96 | 6.390075053 |
| 2008-2009 | 30038.36 | 651977.03 | 4.607272744 |
| 2009-2010 | 42634.63 | 801244.81 | 5.321049131 |
| 2010-2011 | 59741.49 | 1006699.28 | 5.934392841 |
| 2011-2012 | 66369 | 12676900.00 | 5.235428220 |
| 2012-2013 | 61938 | 1602362.00 | 3.865418676 |

Source: Data compiled from Annual Reports of SCCL

It is apparent from the Table 6.33 that the SCCL has recorded the working return on assets ratio during the year 2007-08 as 6.390 and during the year 2008-09 it found lower as 4.607. But

during the years 2009-10, 2010-11 and 2011-12 slightly increased to 5.32, 5.93 and 6.235 respectively and comparing to the previous year, for the year 2012-13 with a drastic decrease, the return on



assets ratio recorded as 3.865. To Ratio of the company, t-test is conducted analyze the changes in return on assets and presented in the following Table-14
 Table – 14: T-test for return on assets ratio

| Mean | Std. deviation | Degrees of freedom | t-value | Significance Level (p-value) |
|--------|----------------|--------------------|---------|------------------------------|
| 5.2256 | 0.90554 | 5 | 14.135 | 0.000 |

Source: Exercised by applying MS-Excel

The Mean value of the return on assets ratio of the SCCL is worked out to be as 5.2256 and the Standard Deviation is found as 0.90554. The value of standard deviation presented at table reflects the variation among the return on assets ratios and it also shows efficiency of utilization of fixed and current assets towards increasing earnings power of shareholders. The calculated t-value for the said return on assets ratio is worked out to be 14.135 with 5 degrees of freedom and its probability value found as 0.000. On the whole, the data pertaining to return on assets ratio reveals that the computed t-value is found to be statistically significant. Hence, it can be interpret that the organization had efficiency of utilization of fixed and current assets towards increasing earnings power of shareholders.

Conclusion:

Working capital turnover ratio reveals that the computed t-value is found to be statistically significant. It can be interpret that the organization is having higher efficiency of the production / trading operations apart from costing point of view and also higher efficiency to earn the trading profit. Return on capital employed ratio, reveals that the computed t-value is found to be statistically significant for this reason, it can be read that the organization is

higher efficient utilization of capital employed by firm towards improvement of sales at a minimum proportionate rate. Return on net worth ratio divulges that the computed t-value is found to be statistically highly significant. In overall, the findings of the financial, operational and profitability ratios are reveals that the Singareni Collieries Company Ltd., is in a profitable way and having sound financial management and carrying successful business operation and organization has also succeeded in minimizing risk and maximizing returns by inducting the proper training to its employees even though minimizing the manpower.

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