A STUDY AND APPROACH ON WORKING CAPITAL MANAGEMENT

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ABSTRACT:

Traditionally, investors, creditors and bankers have considered working capital as a critical element to watch, as important as the financial position portrayed in the balance sheet and the profitability shown in the income statement. Working capital is a measure of the company's efficiency and short term financial health. It refers to that part of the company's capital, which is required for financing short-term or current assets such a cash marketable securities, debtors and inventories. It is a company's surplus of current assets over current liabilities, which measures the extent to which it can finance any increase in turnover from other fund sources. The present paper makes an attempt to give a conceptual insight on working capital management and assess its impact on liquidity and profitability of Coal India Ltd. The liquidity and profitability trade off has become an important aspect for all the organizations. The attempt also has been made to test the liquidity and profitability position. For this correlation and spearman's rank method has been applied.

Keywords: *working capital, current assets, current liabilities, finance, Liquidity.*

INTRODUCTION:

The present research seeks to study in depth the Working Capital Management of selected paper companies in India, with special emphasis on an examination of the management performance in regard to financial management. It hardly needs mentioning that inventory, accounts receivables and cash and its alert administration can go a long way in solving the problem of the efficient working capital management. In fact, the present research of working capital management needs special attention for the efficient working and the business. It has been often observed that the shortage of working capital leads to the failure of a business. The proper management of working capital may bring about the success of a business firm. The management of working capital includes the management of current assets and current liabilities. The present research undertakes to deal with the net concept of working capital: excess of current assets over current liabilities. A number of companies for the past few years have been finding it difficult to solve the increasing problems of adopting seriously the management of working capital. Business concerns intent on developing their business have to use to the utmost, their available resources for the improvement and development of the business there by enabling them to increase their profits. Working Capital and change in working capital, especially in inventories, which is one of the components of working capital form a very important part of the total gross-capital formation in the paper companies. Efficient and the optimal utilization of fixed assets is very closely related to the proper management of working capital.

LITERATURE REVIEW:

Oladipupo and Okafor (2013) examined the implications of a firm's working capital management practice on its profitability and dividend payout ratio. The study focused on the extent of the effects of working capital management on the Profitability and Dividend Payout Ratio.

Mathuva (2010) in his study on the influence of working capital management on corporate profitability found that there exists a highly significant negative relationship between the time it takes for firms to collect cash from their customers and profitability. He explained that the more profitable firms take the shortest time to collect cash from the customers.

Sharma and Kumar (2011) examined the effect of working capital on profitability of Indian firms. They collected data about a sample of 263 non-financial BSE 500 firms listed at the Bombay Stock (BSE) from 2000 to 2008 and evaluated the data using OLS multiple regression. The results revealed that working capital management and profitability is positively correlated in Indian companies.

Singh and Rekha Dayal (2004) studied the economics of production and marketing of milk in the state of Uttar Pradesh. Linear and log-linear functions were used to work out the estimates of factors affecting marketed surplus of milk both for the private and cooperative systems. The results of the study indicated that the feed and fodder cost was the most important item of the total maintenance cost accounting for 55 to 65 percent of the total cost in zone-I and 51 to 66 percent in zone-II. The net profit per day of a Milch buffalo was very low due to the higher maintenance and low milk yield of milch buffalo on each herd size group in each zone of the state.

GarcíaTeruel and Martinez-Solano (2014) are focused on searching for the optimum level of working capital. The authors assume a concave relationship between the corporate performance and the level of working capital. This level is measured by the cash conversion cycle. Based on the obtained results, the authors believe that it is good to extend the length of cash conversion cycle to a certain point and are reaching this point it is better to reduce it. This optimum can be determined from the derivation of the relationship.

OBJECTIVES:

The two main objectives of working capital management are:

1. To ensure the organisation has sufficient working capital resources to function and grow
2. To improve profitability by keeping the investment in working capital to the minimum required.

These two objectives may conflict. For example, whilst an excessively conservative approach to working capital management may provide ample liquidity it may also reduce profits because excessive funds tied up in working capital will not be available to invest in profitable opportunities.

CONCEPT OF WORKING CAPITAL MANAGEMENT

There are two concepts of working capital viz .quantitative and qualitative. Some people also define the two concepts as gross concept and net concept. According to quantitative concept, the amount of working capital refers to 'total of current assets'. What we call current assets? Smith called, 'circulating capital'. Current assets are considered to be gross working capital in this concept. The qualitative concept gives an idea regarding source of financing capital. According to qualitative concept the amount of working capital refers to "excess of current assets over current liabilities."

Current assets: It is rightly observed that "Current assets have a short life span. These type of assets are engaged in current operation of a business and normally used for short– term operations of the firm during an accounting period i.e. within twelve months. The two important characteristics of such assets are, (i) short life span, and (ii) swift transformation into other form of assets. Cash balance may be held idle for a week or two; account receivable may have a life span of 30 to 60 days, and inventories may be held for 30 to 100 days."Fitzgerald defined current assets as, "cash and other assets which are expected to be converted in to cash in the ordinary course of business within one year or within such longer period as constitutes the normal operating cycle of a business."

Current liabilities: The firm creates a Current Liability towards creditors (sellers) from whom it has purchased raw materials on credit. This liability is also known as accounts payable and shown in the balance sheet till the payment has been made to the creditors. The claims or obligations which are normally expected to mature for payment within an accounting cycle are known as current liabilities. These can be defined as "those liabilities where liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets, or the creation of other current assets, or the creation of other current liabilities."

Formula for Working Capital: "Current Assets – Current Liabilities"

Structure of Working Capital: The different elements or components of current assets and current liabilities constitute the structure of working capital which can be illustrated in the shape of a chart as follows:

Structure of Current Assets and Current Liabilities

Current Liabilities	**Current Assets**
Bank Overdraft	Cash and Bank Balance
Creditors	Inventories: Raw-Materials Work-in-progress Finished Goods
Outstanding Expenses	Spare Parts
Bills Payable	Accounts Receivables
Short-term Loans	Bills Receivables
Proposed Dividends	Accrued Income
Provision for Taxation, etc.	Prepaid Expenses Short-term Investments

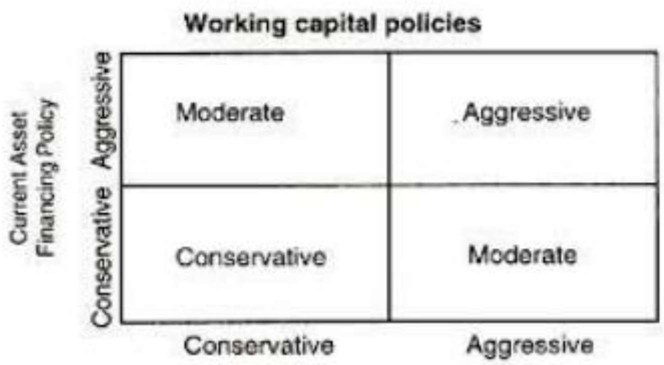
Importance of Working Capital Management

For smooth running an enterprise, adequate amount of working capital is very essential. Efficiency in this area can help, to utilize fixed assets gainfully, to assure the firm's long term success and to achieve the overall goal of maximization of the shareholders, fund. Shortage or bad management of cash may result in loss of cash discount and loss of reputation due to non-payment of obligation on due dates. Insufficient inventories may be the main cause of production held up and it may compel the enterprises to purchase raw materials at unfavourable rates. Like-wise facility of credit sale is also very essential for sales promotions. It is rightly observed that "many a times business failure takes place due to lack of working capital." Adequate working capital provides a cushion for bad days, as a concern can pass its period of depression without much difficulty.

Significance of Working Capital Management Funds are needed in every business for carrying on day to-day operations. Working capital funds are regarded as the life blood of a business firm. A firm can exist and survive without making profit but cannot survive without working capital funds. If a firm is not earning profit it may be termed as 'sick', but, not having working capital may cause its bankruptcy working capital in order to survive. The alternatives are not pleasant. A study of working capital management is very important foe internal and external experts. Sales expansion, dividend declaration, plants expansion, new product line, increase in salaries and wages, rising price level, etc., put added strain on working capital maintenance. Failure of any enterprise is undoubtedly due to poor management and absence of management skill.

Importance of working capital management stems from two reasons, viz., (i) A substantial portion of total investment is invested in current assets, and (ii) level of current assets and current liabilities will change quickly with the variation in sales. Though fixed assets investment and long-term borrowing will also response to the changes in sales, but its response will be weak.

Working Capital Policies: Every company needs to monitor its working capital closely in order to cover its cash requirements. As a business grows the firms should keep an eye on the investment of working capital. The firm can also form the effective policies on working capital management to run their business smoothly. The firm needs a separate policy on all the components of working capital like cash policies, inventory policies, credit policies, payable policies etc.



The above working capital policies can be aggressive, moderate or conservative.

Aggressive strategy: This is the most aggressive of all the strategies. It fully focuses on the profit side the firm. It is called high risk, high profit strategy. Here the long term funds are mainly employed in fixed assets.

Moderate strategy: As the name indicates it is moderate. Here part of the long term funds are used in current assets. Here risk and returns are moderate. It is a balance between the aggressive and conservative policies.

Conservative strategy: Here also the working capital is financed with low risk and profit. In this strategy part of the permanent working capital is financed by the long term sources. In this strategy the objective is to play safe.

The following factor determine the amount of working capital

Nature of Companies: The composition of an asset is a function of the size of a business and the companies to which it belongs. Small companies have smaller proportions of cash, receivables and inventory than large corporation. This difference becomes more marked in large corporations. A public utility, for example, mostly employs fixed assets in its operations, while a merchandising department depends generally on inventory and receivable. Needs for working capital are thus determined by the nature of an enterprise.

Demand of Creditors: Creditors are interested in the security of loans. They want their obligations to be sufficiently covered. They want the amount of security in assets which are greater than the liability.

Volume of Sales: This is the most important factor affecting the size and components of working capital. A firm maintains current assets because they are needed to support the operational activities which result in sales. They volume of sales and the size of the working capital are directly related to each other. As the volume of sales increase in the investment of working capital-in the cost of operations, in inventories and receivables.

Inventory Turnover: If the inventory turnover is high, the working capital requirements will be low. With better inventory control, a firm is able to reduce its working capital requirements. While attempting this, it should determine the minimum level of stock which it will have to maintain throughout the period of its operations.

Variations in Sales: A seasonal business requires the maximum amount of working capital for a relatively short period of time.

Production Cycle: The time taken to convert raw materials into finished products is referred to as the production cycle or operating cycle. The longer the production cycle, the greater is the requirements of the working capital. An utmost care should be taken to shorten the period of the production cycle in order to minimize working capital requirements.

Liquidity and Profitability: If a firm desires to take a greater risk for bigger gains or losses, it reduces the size of its working capital in relation to its sales. If it is interested in improving its liquidity, it increases the level of its working capital. However, this policy is likely to result in a reduction of the sales volume, and therefore, of profitability. A firm, therefore, should choose between liquidity and profitability and decide about its working capital requirements accordingly.

Inflation: As a result of inflation, size of the working capital is increased in order to make it easier for a firm to achieve a better cash inflow. To some extent, this factor may be compensated by the rise in selling price during inflation.

Repayment Ability: A firm's repayment ability determines level of its working capital. The usual practices of a firm are to prepare cash flow projections according to its plans of repayment and to fix working capital levels accordingly.

Change in Technology: Technological developments related to the production process have a sharp impact on the need for working capital.

Activities of the Firms: A firm's stocking on heavy inventory or selling on easy credit terms calls for a higher level of working capital for it than for selling services or making Cash sales.

Management ability: Proper co-ordination in production and distribution of goods may reduce the requirement of working capital, as minimum funds will be invested in absolute inventory, non-recoverable debts, etc.

External Environment: with development of financial institutions, means of communication, transport facility, etc., needs of working capital is reduced because it can be available as and when needed.

Research Methodology

Sample design: The sample for the study has been selected a company named COAL INDIA ltd which is one of the top public sector companies in the mining sector.

Coal India Limited (CIL) is one of the leading public sector companies of Indian mining sector. Coal India ltd as an organized state owned coal mining corporate came into being in November 1975 with the government taking over private coal mines. With a modest production of 79 Million Tonnes (MTs) at the year of its inception CIL today is the single largest coal producer in the world.

Working Capital Performance					
Ratios ↓ Year →	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**
Current Ratio	2.56	2.55	3.34	3.28	2.94
Quick Ratio	2.35	2.38	3.13	3.05	2.72
Stock Turnover	8.86	11.52	13.72	13.97	13.04
Stock Turnover(Days)	36.98	31.68	26.61	26.13	27.97
Debtors Turnover	16.11	12.34	7.35	9.44	9.47
Average Collection Period(Days)	22.64	29.57	49.64	38.67	38.54
Working Capital Turnover	1.32	1.31	1.24	1.39	1.46
WCCA	60.97	60.88	70.14	69.54	66.04
STCA	8.18	6.95	6.35	6.94	7.38
CA-ST/CA	91.82	93.05	93.65	93.05	92.61
ROCE	32.31	36.17	36.93	35.32	32.29

The above table shows the current ratio over the period depicting the satisfactory performance in comparison with the normal standard of 2:1 and on the other side Quick ratio is slightly higher, but acceptable. Both the ratios have increased from 2.56 and 2.35 from 2010-11 to 3.28 and 3.05 till 2013-14. In 2014-15 both have decreased to 2.94 and 2.2 respectively. The working capital ratio has shown an upwards trend over the period which is a good sign for the company. But it has to improve to a level where the company can manage working capital efficiently. The profitability indicators like return on capital employed (ROCE) and equity (ROE) have shown consistent performance over the past five years. Important indicator like EBIT has increased which is a good sign for the concern.

Liquidity and Profitability

For analysis of the correlation between liquidity and profitability, the Current Ratio and Return on Capital Employed Ratio is used. Here to test the correlation spearman's rank method is applied.

Relationship between Liquidity and Profitability

Year	CR	Rank	ROCE	Rank	D (Rank Difference)	D^2
2010-11	2.56	4	32.30	4	0	0
2011-12	2.55	5	36.17	2	3	9
2012-13	3.34	1	36.93	1	0	0
2014-15	3.28	2	35.32	3	1	1
2015-16	2.94	3	32.29	5	2	4
Total						14

The table value of the t at 5% significance level of ((n-2)), (5-2) is 3.182 and our calculated value is 0.544 i.e. less than the table value, it means null hypothesis is accepted. So, the test result shows that there is a negative relationship between liquidity and profitability.

MOTAAL'S Comprehensive Test of Liquidity

Years	WC to CA	Rank	Stock to CA	Rank	LR to CA	Rank	Total Rank	Ultimate Rank
2010-11	60.97	4	8.18	5	91.82	5	14	5
2011-12	60.88	5	6.95	3	93.06	2	10	3
2012-13	70.14	1	6.35	1	93.65	1	3	1
2013-14	69.54	2	6.94	2	93.05	3	7	2
2014-15	66.04	3	7.38	4	92.61	4	11	4

The Motaal's test is applied to find out the liquidity position of the Coal India ltd for the selected period of study. Based on the Motaal's test ultimate ranking it can be inferred that the liquidity position was best in the year 2012-13 followed by 2013.14 and 2011-12. In the year 2010-11and 2014-15 there is a cause of concern of liquidity. Overall it shows that liquidity position of the firm has improved over the period of time.

CONCLUSION:

Thus, to develop successfully optimum inventory policies, the management needs to know about the functions of inventory, the cost of carrying inventory, economic order quantity and safety stock. Industrial machinery is usually very costly and it is highly uneconomical to allow it to lie idle. Referring to the objectives of the study the overall working capital performance is found to be satisfactory for the study period. The firm has shown significant improvement in the performance in terms of liquidity and profitability aspects. However, there is a need for improvement in some ratios related to debtors and working capital turnover in order to enhance the liquidity and profitability position to the greater level. Overall the working capital performance of Coal India Ltd is satisfactory.

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