
By Dr. K.C. Biswal, Associate Professor in Management, Nehu, Tura campus, Meghalaya & Y. B. Lyngdoh, Ph.D Student, Department of Management, Nehu, Tura campus, Tura, Meghalaya.

ABSTRACT

Working capital management plays a significant role in improved profitability of firms. Firms can achieve optimal management of working capital by making the trade-off between profitability and liquidity. Correlation and Ordinary Least Squares regression models were used to establish the relationship between working capital management and firm's profitability. The study finds a negative relationship between profitability and current ratio, but a positive relationship between profitability and debtor turnover ratio, inventory turnover ratio, creditor turnover ratio. Moreover, the financial leverage, sales growth, current ratio and firm size also have significant effects on the firm's profitability. The management can also create value for their shareholders by increasing their inventories to a reasonable level. Firms can also take long to pay their creditors in as far as they do not strain their relationships with these creditors. Firms are capable of gaining sustainable competitive advantage by means of effective and efficient utilization of the resources of the organization through a careful reduction of the cash conversion cycle to its minimum. In so doing, the profitability of the firms is expected to increase.

KEYWORDS: Working Capital Management, Debtor Turnover Ratio, Creditor Turnover Ratio, Inventory Turnover Ratio, Current ratio, Return on Assets, Manufacturing.

1. INTRODUCTION

The concept of working capital management addresses companies’ managing of their short-term capital and the goal of the management of working capital is to promote a satisfying liquidity, profitability and shareholders’ value. Working capital management is the ability to control effectively and efficiently the current assets and current liabilities in a manner that provides the firm with maximum return on its assets and minimizes payments for its liabilities. Working capital management efficiency is vital especially for manufacturing and construction firms, where a major part of assets is composed of current assets (Horne & Wachowitz, 2000). Indirectly affects the profitability and liquidity of firms (Raheman & Nasr, 2007). The profitability liquidity trade-off is important because if working capital management is not given due considerations then the firms are likely to fail and face bankruptcy (Kargar & Bluementhal, 1994). The significance of working capital management efficiency is irrefutable (Filbeck & Krueger, 2005). Working capital is known as life giving force for any economic unit and its management is considered among the most important function of corporate management. Every organization whether, profit oriented or not, irrespective of size and nature of business, requires necessary amount of working capital. Working capital is the most crucial factor for maintaining liquidity, survival, solvency and profitability of business (Mukhopadhyay, 2004). Working capital management is one of the most important areas while making the liquidity and profitability comparisons among firms (Eljelly, 2004), involving the decision of the amount and composition of current assets and the financing of these assets. The greater the relative proportion of liquid assets, the lesser the risk of running out of cash, all other things being equal. All individual components of working capital including cash, marketable securities, account receivables and inventory management play a vital role in the performance of any firm. Efficient management of working capital plays an important role of overall corporate strategy in order to create shareholder value. Working capital is regarded as the result of the time lag between the expenditure for the purchase of raw material and the collection for the sale of the finished goods. The way of managing working capital can have a significant impact on both the liquidity and profitability of the company (Shin & Soenen, 1998). The main purpose of any firm is to maximize profit. But, maintaining liquidity of the firm also is an important objective. The problem is that increasing profits at the cost of liquidity can bring serious problems to the firm. Thus, strategy of firm must maintain a Balance between these two objectives of the firms. Dilemma in working capital management is to achieve desired trade-off between liquidity and profitability (Smith, 1980; Raheman & Nasr, 2007). Referring to theory of risk and return, investment with more risk will result to more return. Thus, firms with high liquidity of working
capital may have low risk and low profitability. Conversely, a firm that has low liquidity of working capital faces high risk which results to high profitability.

2. REVIEW OF LITERATURE

Various studies have analysed the relationship of working capital management (WCM) and firm profitability in various markets. The results are quite mixed, but a majority of studies conclude negative relationship between WCM and firm profitability. The studies reviewed have used various variables to analyse the relationship, with different methodology such as linear regression and Correlation. This section presents the chronology of major studies related to this study in order to and identifies the research gap. Other authors Gul, Khan, Rehman, Khan, Khan and Khan (2013) Oladipupo and Okafor (2013) Gakure, Cheluget, Onyango and Keraro (2012) Sharma and Kumar (2011, Raheman, Afza, Qayyum and Bodla (2010) Mathuva (2010), Gill, Biger and Mathur (2010)

Objectives of the Study

I. Is there any relationship exist significant relationship between liquidity and profitability.

Research Hypothesis

i. Ho – There is no significant relationship between liquidity and profitability

ii. H1 – There is a significant relationship between liquidity and profitability.

Research Methodology:

Sample Frame: The present study mainly deals with the practices of working capital management and also the requirement of capital and its effective allocation of resources in the components of working capital management. Further, the study is also concerned with the assessment of relationship between profitability and working capital management of cement companies and the present study on working capital management of selected cement companies will be based on data from secondary resources. In pursuance of the set objectives of the study, the main sources of collection of data in various annual reports (profit and loss account, balance sheet, and cash flow statements). Mawmluh Cherra Cement Limited of Meghalaya have been selected as sample for the working capital Management and company has also completed 10 yrs of operation.

Data and Variables: The secondary data will be used for the purpose of the study. The sources of secondary data are cement manufacturing association, New Delhi, Shillong regional office, bank offices, the annual report of select cement companies 2003 to 2013, published and unpublished research papers and dissertations, book, journal etc. will be collected for purpose of the study. More specifically, the annual report of the companies and the data from B.S.E (Bombay Stock Exchange) official directory will constitute the major source of data.

Tools and Techniques: The collected data will be analyzed in a number of closely related operations according to the nature of information by using various tools and techniques, both accounting and statistical. The accounting tools include the ratio analysis and fund flow statements. The arithmetic mean (X), coefficient of variation (C.V), t-test, growth trend, trend analysis, coefficient of correlation (r), coefficient of determination (r²), linear regression equation, Correlation, graph and charts are the statistical techniques to be used for the purpose of analysis of data.

f) Period coverage:
The proposed study covers a period of 10 years from 2002-2003 to 2011-2012. The analysis of different variables relating to the working capital management in cement companies of Meghalaya will be made the afore said time period to evaluate the working capital management practices followed in the post liberalization period.

In order to analyse the effects of working capital components on the profitability of manufacturing and construction companies in Meghalaya, profitability is measured by Return on Assets (ROA), which is defined as the ratio of earnings before interest and tax to total assets. ROA is used as a dependent variable.
ROA has been used by Samiloglu and Demirgunes (2008), Garcia-Teruel and Martinez-Solano (2007) and Nazir and Afza (2009). The return on assets determines the management efficiency to use assets generates earnings. It is a better measure since it relates the profitability of the company to the asset base (Padachi, 2006).

The average collection period (ACP); the inventory conversion period (ICP); the average payment period (APP); and the Cash Conversion Cycle, Debtor turnover ratio, Creditor turnover ratio, Inventory turnover ratio and Current ratio are used as the independent variables and are considered for measuring working capital management. ACP is the time taken to collect cash from customers; ICP refers to the time taken to convert inventory held in the firm into sales; APP is the time taken to pay the firm’s suppliers while CCC is used as a comprehensive measure of working capital as it shows the time-lag between payment for the purchase of raw material and the collection of sales of finished goods. Apart from these variables, the size of the firm, the growth in its sales, firm leverage and current ratio are introduced as control variables.

The reason for choosing these variables is that most of researchers (Deolof, 2003; Garcia-Teruel & Martinez-Solano, 2007; Jose et al., 1996; Nazir & Afza, 2009; Raheman & Nasr, 2007; Huang et al. (2009); and Shin & Soenen, 1998) have used these to calculate the relationship between WCM and profitability in various markets.

Data analysis

The analysis is made in the following order:

1. Size of working capital
2. Structure of working capital
3. Analysis of Components

1. SIZE OF WORKING CAPITAL

The study of size is significant to decade on the relative importance between fixed capitals and working capital. Normally, In the Mawmluh Cherra Cements Limited working capital will be of high proportion the size also provides an indication to the relative liquidity position of the company. Table – 1 presents the details relating to the size of the working capital, measured in the form of ratio between current assets and total assets. It is evident from the information that currents assets have constitute above 60 per cent of the total assets the shows the good significance of working capital in Mawmluh Cherra Cement. Further, there is consistency in the overall position of working capital during the period of study.
<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients</th>
<th>Standardized Coefficients</th>
<th>95.0% Confidence Interval for B</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized Coefficients</td>
<td>Standardized Coefficients</td>
<td>Lower Bound</td>
<td>Upper Bound</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>26.274</td>
<td>3.317</td>
<td></td>
<td>7.922</td>
</tr>
<tr>
<td>inventory TR</td>
<td>-3.167</td>
<td>.536</td>
<td>-.902</td>
<td>-5.908</td>
</tr>
<tr>
<td>2 (Constant)</td>
<td>16.661</td>
<td>4.631</td>
<td></td>
<td>3.598</td>
</tr>
<tr>
<td>inventory TR</td>
<td>-.893</td>
<td>1.001</td>
<td>-.254</td>
<td>-.892</td>
</tr>
<tr>
<td>Debtor TR</td>
<td>-.091</td>
<td>.037</td>
<td>-.712</td>
<td>-2.499</td>
</tr>
<tr>
<td>3 (Constant)</td>
<td>20.403</td>
<td>6.099</td>
<td></td>
<td>3.345</td>
</tr>
<tr>
<td>inventory TR</td>
<td>-1.146</td>
<td>1.042</td>
<td>-.326</td>
<td>-1.100</td>
</tr>
<tr>
<td>Debtor TR</td>
<td>-.067</td>
<td>.045</td>
<td>-.524</td>
<td>-1.502</td>
</tr>
<tr>
<td>Creditor TR</td>
<td>-.500</td>
<td>.526</td>
<td>-.170</td>
<td>-.952</td>
</tr>
<tr>
<td>4 (Constant)</td>
<td>17.164</td>
<td>6.582</td>
<td></td>
<td>2.608</td>
</tr>
<tr>
<td>inventory TR</td>
<td>-.660</td>
<td>1.101</td>
<td>-.188</td>
<td>-.600</td>
</tr>
<tr>
<td>Debtor TR</td>
<td>-.091</td>
<td>.048</td>
<td>-.712</td>
<td>-1.886</td>
</tr>
<tr>
<td>Creditor TR</td>
<td>-.667</td>
<td>.533</td>
<td>-.227</td>
<td>-1.252</td>
</tr>
<tr>
<td>current ratio</td>
<td>1.155</td>
<td>1.007</td>
<td>.186</td>
<td>1.146</td>
</tr>
</tbody>
</table>

Source: Annual Report Of Mawmluh Cherra Cement Ltd.
Dependent Variable: return on asset

The statistical significant can be verified by the coefficient, standard error test, t-statistics, Adjusted R-squared, F-statistic, Pro.(F-statistic) and the Durbin-Watson statistics. In summary, the econometric test applied through E-views shows the statistically significant relationship between the dependent variables and independent variables from the model. The above regression results show that CTO, DTO and ITO have a positive significant impact on ROA, but there is no significant impact of CR on ROA. Also, the adjusted r-squared is showing that the above mentioned independent variables effect the dependent variable by 87.8 per cent.

Finding out

As the above results show that there is a positive relationship between debtors turnover (DTO) and return on assets (ROA), between inventory turnover (ITO) and ROA and between creditors turnover (CTO) and ROA, but there is no significant relationship between current ratio and ROA, so the null hypothesis has been rejected.

Hence, the interpretation of results is that by increasing debtors turnover and inventory turnover and by decreasing creditors turnover ratios, the company can increase its profitability but there is no significant effect of increasing or decreasing the current ratio on profitability. Therefore, the results of the research indicate that through proper working capital management, the company can increase its profitability. This above study will benefit and contribute to the body of knowledge by identifying how cement companies manage their working capital in the most effective and efficient manner in order to multiply profitability of the business.

However, on whole the receivable management of the company is not more efficient.

The findings indicate that firm managers/executives can enhance performance of the firms by reducing the number of days in inventories.

The finding indicate that Cash management is not so good; however cash management is very faulty as a result of which cash ratio to total current assets and cash ratio to total sales are very high in the Mawmluh Cherra Cement Company.

With the above finding one can draw plan of conclusion about the economic strength of the Mawmluh Cherra Cement Company and various aspects of working capital.
RECOMMENDATIONS:

An optimal/effective policy is necessary for the company, for efficient working capital management, specialized persons in the fields of finance should be hired by the company for export advice in the manufacturing sector because the company there is only one department and one person who is looking after all financial activities of company including handling of accounts etc. There is no overstocking of goods in process because it cannot be more than capacity of Mawmluh Cherra cements Ltd. The stock of cement as percentage of sales has come down, but there is scope to reduce it further by proper planning of production and sales. As already pointed out much needs to be done for proper management of miscellaneous current assets. All-out efforts should be made to reduce loans and advance to more materials and expansion of the company. This is quite possible through firm policy either internal financing or retain earning and its proper implementation. Then, loans and advances to subsidiary and related organisation should be on cost basis and should be on same rate of interest as it is possible to earn by leading it to other non-group companies. There should be proper credit analysis of all loans/advances taken by or given by Mawmluh Cherra Cement Ltd in which financial institutions or cement organisation’s executives should take more active interest so that bad debts may be minimised.

At last efficient management and financing of working capital (current assets and current liabilities) can increase the operating profitability of Mawmluh Cherra Cement Company.

REFERENCES

Annual Report of Mawmluh Cherra cement Ltd, Meghalaya.
Annual statistical Abstract, Meghalaya.
Industrial Financial Corporation of India, Annual Report.
National Industrial Development Corporation (NIDC).
The federation of universities may (2009), Meghalaya Industrial Development corporation annual report, Department of Industries Government of Meghalaya, Meghalaya Industrial Policy 1997.