Study into Gross and Net Working Capital

The importance of working capital needs no special mentioning and in any industry it needs no special emphasis. Working capital is conceived to be life- affording force for any economic entity. Managing of working capital is an important functions performed by corporate management (Anand, M, 2001). Every Industry whether it is a profit making or not, disregarding of its size and what kind of business it is, needs necessary sum of working capital. Capital which keeps an entity working is defined as working capital. The effective working capital management is a factor in maintaining liquidity, survival, solvency and profitability of the related business organization. It requires adequate finance to conduct purchase of raw materials; defrayment of day to day or today operational expenses which may include wages and salaries, maintenance and repairs expenses etc. and other funds required to meet these expenses together are collectively defined as working capital.

In easiness, working capital cites to portion of total fund that is used for financing the day to day working expenses required to perform the operating cycle. The term called "working" here refers to continuity of production and further distribution of removing services and goods required by society (Berryman, J, 2001). Working capital is important to finance current assets that include debtors, inventories, marketable securities, cash, bank, short term loans and other advances, like payment of advance tax and other expenditure and so on. Majorly, there are two concepts related to working capital and are:

Gross Working Capital and

Net Working Capital.

Introduction

Gross Working Capital cites to financial resource left over invested in current assets whereas Net Working Capital shows the existing gap between the Gross Working Capital and Current Liabilities. In a simple manner it is the difference existing between Current Assets and Current Liabilities.

A business establishment should check the exact need of working capital and conserve the same evenly through the operating cycle. It is important to mention that a firm must have neither excess of working capital nor less working capital as both these phenomena of more capitalization and less capitalization of working capital produce adverse effects on overall profitability and related liquidity of concerned firm. The overall effective working capital needs careful handling towards current assets so as to ensure short term liquidity and economic condition of the business.

To be more precise, neither less stocking nor more stocking of raw materials must occur, careful and proper maintenance and trade off among credit receiving period starting from sundry creditors and ending up to credit admitting period to sundry debtors (broadly credit period starting from sundry creditors must be more than overall credit period allowed for sundry debtors and gap between two periods is financially defined as float of comfort), sustainment of essential cash and essential bank balance which included provision for eventuality and planning all the aspects like long term and short term investment in proper manner without countenancing any cash/bank balance to stay idle in business and are strictly required and need to be followed by management. Practicing judicious and effectively policies for working capital management requires hire of beefeaters service and expertise of conceptually strong finance professionals (Bhattacharya, H., 2001).

Continuing in view the practical importance of management of working capital as a dull area of function of corporate finance, a measure has been adopted to monitor practices related to working capital management and problems confronted by the companies in process related to working capital management, particularly in industries like heavy engineering. An engineering firm having more than two hundred years old bequest of culture and inheritance and being located in Eastern Europe has been chosen for the purpose of our study. The company further has two corporate subsidiaries. The corporate office of the company under study is Warsaw ,Poland , the name of company is kept undisclosed due to the request of same and call the firm as let the firm as "M/S Heavy Engineering Company Limited" for our purpose of study though , name of firm is barely material here.

Literature Review

Introduction to Working Capital Management

Working capital management can be called as the part of finance. Working Capital Management is related to organizing the current assets and liabilities. However, studying working capital management, students of commerce use this process to fund flow analysis. Working capital plays an important role to pay daily expenses & long term liabilities.

Meaning & Concept of Working Capital & its management

Meaning of Working capital can be given as – it is a part of organization’s capital that can be used to purchase raw material & involve in sundry debtors for the company. As we know that current asset is the most important thing working for fixed assets. Let’s assume that you have invested some funds in purchasing of machines for company & now you do not have any more funds to purchase raw material for your organization, then your purchased machinery will be of no use for any type of production in absence of raw material. With this example, we can get that working capital is the most useful part to operate a business organization (Bolton, J. E., 2001). There is 1 more liquid item in current assets known as cash. However, if you do not have cash in hand, then payments can't be done for several expenses of the organization, and you may be delayed to make payments for several business tasks. Eventually, if we talk about working capital in a simple way, then we find that "working capital is the excess of current assets over current liabilities".

Working Capital Types

- Permanent Working Capital

Permanent working capital can be defined as that amount of capital which should be in cash/current assets to continue the business activities.

- Gross working capital

Gross working capital is defined as working capital that uses all the current assets. Total value of current assets is equal to gross working capital. Gross working capital is also known as total working capital.

- Temporary Working Capital

Many times we see that we have paid fixed liabilities, now at that time we require working capital which is some more than a permanent working capital, hence this amount which is in excess is called as be temporary working capital. Normally for working of business we don't need this temporary working capital (Burns, R and Walker, J., 1999).

- Net Working Capital

Net working capital can be defined the excess of current assets over current liabilities.

The amt shows that if we subtract total current liabilities to total current assets, then the balance amt can be used to repayment of long time debts at every time (Central Statistical Office,2003).

Net Working Capital = Total Current Assets – Total Current Liabilities

Following are some most important points in analyzing the working capital:

The need of working capital

After study the nature of production, we can estimate the need for working capital. If company produces products at large scale and continues producing goods, then company needs high amount of working capital.

Working capital management is an attempt to decide the optimum level of the various components of working capital i.e. in tune with the risk-return profile acceptable to the management. In addition to the traditional tools employed in the determination of these optimum levels, the domain of working capital management has imbibed a number of techniques from fields like statistics, economics etc. the application of these techniques is wide ranging. While some of them (like cash budget simulation) are more flexible version of the traditional tools, others go beyond determination of optimum levels of working capital components. Various cash models help in determining the best use of free cash, while disarmament analysis helps in choosing the customers to whom credit can be safely extended. Some tools like weighted operating cycle and working capital leverage help in arriving at the required level of overall working capital (Michaelas, N., 1998).

Factors that affect Working Capital

How is it likely to calculate prior that how much working capital needed, & hence keep on safe side in giving capital funds? It is impossible to provide an accurate formula to answer this question, but an approximation case may be found.

However, it is a known fact that the proportion of working capital in few business lines is far greater than as compared with other lines. This may be instanced by 2 extreme cases. Telephone companies must have big sums placed in central offices, poles, wiring, and other equipments, but behind a entire telephone plant has been implemented in a group of people the running everyday expenditure consist only in the wages of officers and maintenance and are relatively light. Eventually the tradition of telephone companies to give bills for services once in a month in advance; as a result, all the funds which is needed to run expenses from month to month given before the expenditures are actually incurred. Eventually there is no need in this case for working capital, because the present receipts may carefully be depended on to look after of the current expenditure.

Let us consider a retail store that occupies hired quarters. Just fixed assets will include of store furniture & equipment; now all the other property, including the stocks of goods, the accounts owed, and the fund, are current. The larger portion of the fund that should be invested in these enterprises will include of working capital. This is true of sensibly all financial enterprises, & is mainly true of trading enterprises (De Chazal Du Mee,1998). Banks should keep all, or almost all, of their goods in the form as to be renewed into cash roughly at a short notice.

We can consider the first thing which checks the needs of working capital, the common nature of the commerce. If the business includes a merely of leasing a property, giving facilities for shipping, & the like, nearly all of the venture will be in flat forms. When the business is mechanized, then a relatively little amount will include of working capital. If it is financing or trading the need will be for working capital (Steele, L, 2001).

The second thing obviously is the volume of company. Eventually, the requirement for working capital excluding in the 1st class of business above given may vary in percentage to the volume of sales. As we know, the statement assumes that the other thing mentioned below is homogeneous in their action. However, by making the hypothesis that expenses, methods, & terms of purchasing and selling assets and of manufacturing the goods are consistent, then we can say that a fifty percent increase in result and sales will require a percentage increase in working capital.

Now these general comments as to the nature & volume of commerce are serviceable mainly in anticipating any misunderstanding of what comes.

The practical thoughtfulness that need thoughts and are very helpful in making approximations of working capital is:

Seasonal changes in business.

Facilities for exchanging working assets into fund.

Purchase terms.

Sale terms.

Turnover.

Time period of manufacture.

"Funds are the life blood for a business" is an old saying among financial managers. Working capital mgmt refers to the management of present or small scale assets & short term liabilities. Short-term assets component include loans, inventories and advances, investments, debtors, and cash & bank balances. Small scale liabilities include trade advances, creditors, borrowings & provisions. However The major emphasis got by short-term assets (Deloof, D., 2003). The most important thing is that companies lowering risk by careful working capital management.

Working Capital Management gets affect from following:

Organization main goal is to pay attention on issues like money, accounts payable and supply chain management. On the other side, significant impact on working capital from external matters like the

legal environment, business environment, or internal matter like organization composition, information systems etc.

Due to pressures from market, companies are giving too much importance and attention in manufacturing good quarterly outcome in each quarter. Giving too much attention to this may be for a time produce a satisfying but incorrect picture on the performance of working capital. Same thing also occur in business that have a distinct seasonality of function with working capital requirements which differ broadly from one quarter to another quarter (Cheatham, L., 1999).

Working Capital Management can improved through following measures:

- The core of successful working capital management is forecasting cash flow properly. This is supposed to take into consideration the effect of unexpected incident, market cycles, losing major customer and reaction by rival. The consequence of unpredicted demands of working capital supposed to be taken.

- It gives emergency plans to surge over unforeseen events. At the same time market-leaders are able to supervise uncertainty better than other companies, still other companies should have risk-management measures.

What Affects Working Capital Management:

- Organizations main goal is to pay attention on issues like cash, bills payable and supply chain management. On the other side, external matters like the legal environment issues and business environment issues, or internal means like organization composition, information systems, can put considerably impact on working capital.

- Due to pressure of market, companies are paying too much attention on producing excellent quarterly results on each quarter. Paying too much attention on this for a time can produce a flattering but incorrect picture on the performance of working capital. Same thing also occurs in companies that have a distinct seasonality of operations with working capital requirements which are differ broadly from one quarter to another quarter (Gitman, L. J., 1999).

Measures to Improve Working Capital Management:

- The core of successful working capital management is forecasting cash flow properly . This must take into consideration the impact of unexpected events, market cycles, losing major customer and actions

of rivals. The consequence of unexpected demands of working capital should be considered.

- It pays to have emergency plans to surge over unforeseen events. Although market-leaders can handle uncertainty better than other companies, still other companies must have risk-management measures.

These all have to be based on goal and practical view of the job of working capital.

- Speaking on the matter of working capital on a corporate wide source has few benefits. Creating Cash at one place can be efficiently used at another location. This will happen, when there is right to use information, banking channels are well organized, there is good connection between manufacturing and billing, internal systems which are used to move cash and good treasury practice must be placed properly.

- A modern approach of, joining operational and financial skills and comprehensive view of the company's operations will support in recognizing and implementing strategies that create cash for short-term. This can be accomplishing by having the right and responsible executives who are accountable for setting goal and performance levels and also they are then held responsible for giving and encouraged to be innovative and to act like change agents.

- successful dispute management measures in relation to customers will go all along way in releasing up cash or else locked in because of disputes. It will also get better in giving customer service and free up time for rightful activities for example sales, entry for order and collection of cash. On the whole, efficiency will boost due to minimum operating costs.

- Team up with your customers in place of being focused on own operations will also give up good results. If practical, giving them help to plan their requirements for inventory efficiently to compare your production against their consumption will help to minimize the inventory levels and this can be done with the help of suppliers also (Grablowsky, B. J.,1999).

Working capital management is an important to measure efficiently company operational and financial issues. This feature must figure out part of the company's strategic and operational view. Constant efforts should be made to develop the working capital position. This will result huge efficiencies and will help in improving customer satisfaction.

Business Owners all over the country are amalgamating in "The Community of Small Business Owners" to take delivery of and offer strategies, insight, instructions, support and additional on starting, running, rising, and selling their industry. As a member of this community, you will have to contact true Millionaire Business Owners who will give plan and idea from their personal experience (Grablowsky, B. J., 1999).

Objective of the Research:

Below are fundamental objectives focused in our Study?

a. To find the effectiveness of practices related to working capital management of a firm.

b. To check short term liquidity and economic condition of firm.

c. To find how adequateness of working capital bears on commercial operations of a company.

d. To dictate remedial measures to brush the problems confronted by the firm.

Research Methodology: The Study is based upon the secondary data i.e. Published Annual Reports/ Accounts acts as primary data/information received using personal interview and other discussions with concerned executives of corporate. It has been mentioned that we will study and the period of Study is for ten years starting from 1993-94 and conventional method of analysis of data and diligence of financial statement analysis tools and other techniques for checking the degree of skillfulness of working capital management has been acquired in systematic order. We also show constituent wise Gross Working Capital Analysis and details are shown in EXHIBIT I and Working Capital Ratio Analysis details are shown in EXHIBIT II.

Limitations of the Research: The study also has the following limitations:

a. The management of firm is in a conservative manner and was found loath to provide off information related to balance sheet.

b. Operating cycle is not uniform and same was found to change from one period to other due to different inherent problems occurring in production and system related to distribution or delivery system or logistic system dominating in the organization.

c. Non accessibility of necessary and important data for measuring working capital requirements because of Retirement of key personnel’s and a vacuum was left and lack of proper user interface among the firm and researcher (Westhead, P.,2003).

d. Financial analyses are founded on information and historical data.

Hypotheses:

The research is founded on following Hypotheses:

a. The firm which is under study suffers from lack of working capital.

b. There is miserable and inefficient working capital management practices followed in the firm.

c. Non-performing assets command and occult the working capital of the Company.

d. Too much disturbance and dominance of other than non-finance professional bears on systematic and proper working capital management practices to be followed in the firm.

Data Analysis and Interpretation

Constituent wise Net Working Capital and Gross Working Capital is shown in EXHIBT I here under.

It is clear from EXHIBIT I that firm bears from severe crisis of working capital through empirical observation for the period taken under study. There exists negative working capital and also short term liquidity along with economic condition of company is in endangerment. Current liabilities in total are much more than overall gross capital and redundant of current liabilities exists over current assets and is minus net working capital. Debtors and receivables and advances and loans represent about 60% or more than that of gross working capital. Overall percentage of inventory is 22% to 37% of total gross working capital (Rafuse, M. E., 2003). Of these circumstances, we may conclude that the company is badly encumbered to smoothly run their daily commercial operation. It may noteworthy to state that company cannot afford to accommodate 20 to 40% of the total gross working capital as their inventory and 60% or more than 60% with debtors and receivables and advances and loans when it has minus working capital. Also, the firm's cash and other bank balance constitute 5 to 11 % of total gross working capital and is not a standard practice followed by a manufacturing firm which belongs to category of heavy engineering industry. Also, the fluidity of loans and advances and current assets is a dubious case, as it continues more or less stable in the balance sheet for the entire period for which we have conducted study. Under the existing situation, the firm should not curl up inventory to the level of 40% or more than 40% of gross working capital and must follow Just In Time (JIT) Approach related to Inventory Management and is the only answer to proper inventory control for company under study (Saccurato, F.,2001).

Major part of current liabilities constitutes salaries and wages, sundry creditors for staples and raw materials, expenses and others, statutory liabilities for retired employees and staff, short term loan, deposits from contractors, other advances on account billing versus WIP and overtone delivery of goods, initial advances against sales orders etc (Lightfoot, G,1996.).

Constituents of provisions may include dues towards payment of gratuity; encashment of leave, cess surcharges, provisions for contingency etc.

It is observed in aforementioned table that 24% of total current liabilities were not represented by current assets for year 1993-94 and same is 55%, 60%, 67% and 74% for a period starting from 1994-95 and continuing till 1997-98 and was a very crucial time period for asserting belongings of business. However, it reduces to 39% in year 1998-99 and about 24% in year 2002-03 but the intensity of business has been drastically decreasing in this period. For example, a sale turnover was 16696 million pounds in 1993-94 has reduced to Rs. 8170 million pounds in 2002-03. Thus, there is any scope to produce resources that are internal for working capital from any commercial operation of firm. In general terms, there has been a barbarous circle like, it cannot produce sales because of lack of working capital and since it does not have working capital because of lack of sales! The business prospect is brim and the firm is in a state of financial confusion without any entails to break the said vicious circle for proper management of working capital.

Interpretation and Data Analysis for Working Capital Ratios:

So as to examine Working Capital Ratios in case of short term liquidity and financial condition of firm and is shown in EXHIBIT II.

Note the following:

Current Ratio as CR,

Quick Ratio as QR,

Current Assets as CA,

Quick Assets as QA,

Current Liabilities as CL,

Working Capital Turnover as WCT,

Sales as S,

Debtors as D,

Inventory Turnover as IT

CAT=Current Assets Turnover as CAT,

Debtors Turnover DT,

Average Collection Period as ACP

Working Capital as WC

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Working Capital Ratios represents the financial capability of firm so that it meets its current liabilities along with its efficiency in carrying off currents assets for propagation of sales. It needs no advert that cash/bank balance is changed into raw materials, and is converted into WIP (work-in-progress), work in progress changed into finished goods, finished goods is further converted into receivables and debtors and using credit sales and lastly debtors into cash/bank and finally cash to cash process is technically called as operating cycle and lighter the operating cycle, more the degree of efficiency in management of working capital Now, let study and analyze on each item shown in EXHIBIT II under the following discussion.

Current Ratio (CR): It can be seen in EXHIBIT II that CR (Current Ratio) of Heavy Engineering Company Limited is between the range of 0.25: 1 and 0.76: 1 for the period starting from 1993- 1994 to 2002-2003. On an average, per every one pound of current liability, the firm has been asserting 0.563 pound of current assets as a cover so that it meets the liabilities occurring in short term. Commonly, a Current Ratio of 2:1 is believed to be criterion

to show sound liquidity standing but in case of the company under study, it is very less and below standard Current Ratio implied for the industry(Blumenthal, R. A.,2001).

Quick Ratio (QR): Quick Ratio for the firm in study period varies in between values 0.17: 1 to 0.59:1. Ordinarily, 1:1 is believed to be the criterion for Quick Ratio and is a standard. Current Assets minus Inventory are defined as Quick Assets and on average; it has been asserted at pound. 0.407. for each pound of quick liabilities. The Quick Ratio and Current Ratio of Heavy Engineering Company Limited show that short term liquidity and financial condition is in risk and of course dubious how short-term financial duty of the company would be assembled under such bad financial position. The aggregated interpretation of two ratios shows that the concern of short-term creditors is not protected by poor financial condition and fluidity of money assets (Murty, L. S., 2001).

Working Capital Turnover Ratio (WCT):

Working Capital Turnover Ratio shows the ratio of the firm in applying working capital in the business enterprise. Working Capital Turnover Ratio is found as negative throughout the considered period taken under study. It deviates between -0.43 times on lower side and -3.74 times on higher side. This ratio intends that on average, a pound of negative working capital betrays to generate Pound 1.80 deserving of business or sales of firm, and is apparently an alarming situation for management of company (Wilson, N,1996).

Inventory Turnover Ratio (IT):

Inventory Turnover Ratio decreases from 4.10 times in year 1993-94 to a value of 2.37 times in year 2002-2003. It shows that, on average, a pound invested in inventory produces Pound. 3.80 deserving of sales and that is moderately good. Inventory Turnover Ratio calculated in year 2002-2003 is not a satisfactory in equivalence to earlier years, as in 1996-1997

(Found to be highest i. e.5.12 times). However, on total analysis, it may be confirmed that inventory management is at satisfactory though at moderate level (Howorth, C. A., 2000).

Debtors Turnover Ratio (DT):

The Debtors Turnover Ratio is maximum (7.10 times) in year 1998-1999 and minimum (2.04 times) in year 2002-2003 and was about average is 4.234 times. Receivables and Debtors management seems to be acceptable.

However, on an average Debtors Turnover Ratio must be six times or much more during the financial year. Merely speaking, more is the number of times debtors' turnover, fuller the liquidity position company. The aggregated effect of better direction of inventory and receivables & debtors has altered the firm to produce reported business of firm(Storey, D. J. ,1994).

Current Assets Turnover Ratio (CAT):

The Current Assets Turnover Ratio deviated between 0.52 times on lower side and 1.28 times on higher side during the complete period of study. This value indicates that, on average, the company has produced sales of pound. 1.07 with current assets of value pound 1.00 and this is a very low ratio when compared to standard norms followed for the industry. Also, current assets are of value of Pound 1.00 has been able to produce only Pound 0.78 and Pound 0.52 deserving of sales in year 2001-2002 and in year 2002-2003 respectively and is obviously a baffling and admonishing picture of ineffective use of current assets of company in past two years (Weinraub, H. J. and Visscher, S.,1998).

Average Collection Period (ACP): Lastly, average collection period for the firm is calculated to be 97 days and it shows that firm waits for 97 days for collection from debtors in account of credit sales. When year wise study is conducted, it can be seen that lowest collection period was found to be 52 days in year 1998- 1999 and the worst years are year 2001-2002 and year 2002-2003 when collection period was calculated as 4.5 months and 6 months and as a result has injured short term financial condition of firm during two years (Pass, C., 2003). It suggests that marketing division of firm is weak and inactive and is very ineffective. When overall analysis is done, it is clearly stated that company is suffering from crises of working capital. Financial condition of firm is in alarming position. Financial security and Interest of short-term creditors is high risk. Use of current assets must be made in an effective manner.

Conclusion:

The firm is studied in detail and is strongly recommended to embrace the fo1lowing measures for its revival and defeating working capital crisis admitting operational sickness:

To find and locate all idle assets of firm and discard off the same at good competitive price so as to meet the working capital requirement of the company.

To strengthen the sales and marketing division for sale of finished products and collection from debtors. Debtors credit period has to be reduced and must be one month and in case of creditors it must be two months as a result float of comfort will be one month.

To have a management accounting system also its function must be independent and must be under supervision of a management accountant with effective decision making.

SWOT Analysis is to be done before determining revival strategy for company.

"Make or Buy" is to be decided on basis of cost analysis.

To follow fixed cost reduction programs, this can be done by outsourcing some activities after cost benefit analysis.

To make review of strategy related to business periodically, against the competitors behavior.

To make feasibility studies for commercial, economic and financial and cash flow analysis before a new project.