Working Capital Estimation

Meaning

In estimating working capital needs, different people adopt different approaches. Some experts suggest that the working capital should be greater than the minimum requirements of the firm. The management should feel safety. It would be able to meet its obligations even in adverse circumstances. However, the excessive capital may lead to waste and inefficiency. On the other hand, some experts suggest that the working capital should be lower than the requirement so that no idle funds shall be invested in the current assets and it ultimately leads to increase in profitability of the company. However, in such case the firm always have risk of technical insolvency as it may not meet its obligations as and when they falls due for payment.

There are various approaches which have been applied in practice for the estimation of working capital requirements of a firm. Let's discuss some of them in brief.

Estimating Working Capital Requirement Method

1. Percentage of Sales Method

This method of estimating working capital requirements is based on the assumption that the level of working capital for any firm is directly related to its sales value. If past experience indicates a stable relationship between the amount of sales and working capital, then this basis may be used to determine the requirements of working capital for future period.

Thus, if sales for the year 2007 amounted to Rs 30,00,000 and working capital required was Rs 6,00,000; the requirement of working capital for the year 2008 on an estimated sales of Rs 40,00,000 shall be Rs 8,00,000; i.e. 20% of Rs 40,00,000.

The individual items of current assets and current liabilities can also be estimated on the basis of the past experience as a percentage of sales. This method is simple to understand and easy to operate but it cannot be applied in all cases because the direct relationship between sales and working capital may not be established.

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2. Regression Analysis Method

This statistical estimation tool is utilized by mass for various types of estimation. It tries to establish trend relationship. We will use it for working capital estimation. This method expresses the relationship between revenue & working capital in the form of an equation (Working Capital = Intercept + Slope * Revenue). The slope is the rate of change of working capital with one unit change in revenue. Intercept is the point where regression line and working capital axis meets (Will not go deeper into statistical details). At the end of the statistical exercise with past revenue and working capital data, we will get an equation like below:

Working Capital = -6.34 + 0.46 * Revenue

To calculate working capital, just put the targeted revenue figure in the above equation, say 200 million dollars.

Working Capital = -6.34 + 0.46 * 200 = -6.34 + 92 = 85.66 ~ 86 Million Dollar.

Therefore, we need 86 million dollars of working capital to achieve revenue of 200 million dollars.

3. Operating Cycle Approach

It was earlier referred to that working capital is also known as revolving capital. That is, a circular path of conversion/re-conversion takes place. Consider this example. You start your business operation with an initial investment. With credit extended by expense creditors (labor, employees, utilities, etc.) you start production process. Goods of varying levels of finish result. This is what we call as work-in-process or work-in-progress. Once complete processing is done, you get finished goods. Until these goods are sold, they remain in stock. Sales may be for cash and/or on credit basis. You need to wait a little to realize cash from the credit customers. The realized cash is used to pay creditors. You need to maintain a cash balance for day-to-day transactions as well as for meeting sudden spurt in payment obligations accompanied by sluggish cash collections from debtors. Thus a revolution or cycle from cash to raw materials to Work in Progress (WIP), to finished goods, to debtors, and back to cash is taking place. This revolution or cycle is known as operating cycle.

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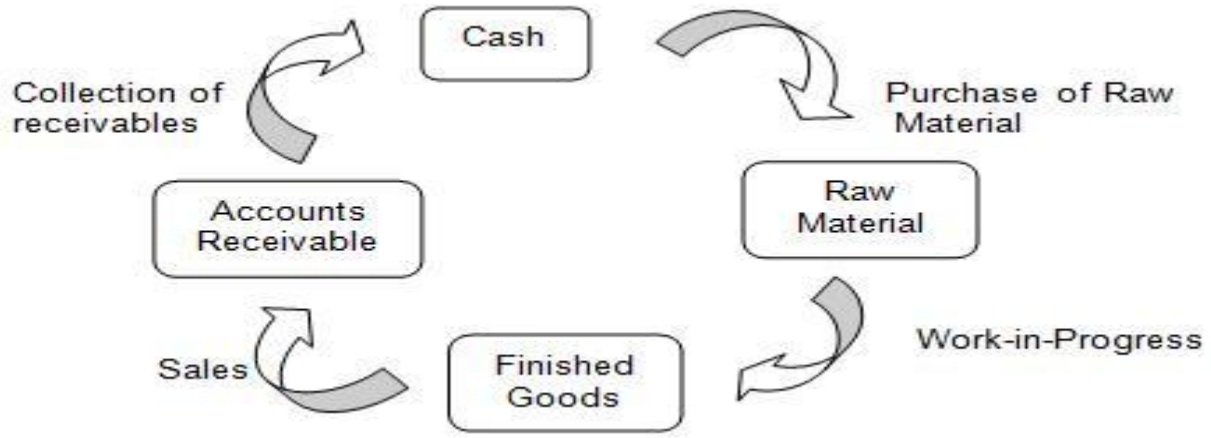

Efficient working capital management is one which ensures continuous flow without any interruptions/holdups at any of the stages referred to above and involves as for as possible a rapid completion of the revolutions. In other words, when raw materials remain in store pending issue for production for a less duration, when raw materials get converted into WIP in short duration, when WIP is converted into finished goods in short duration, when finished goods remain in dept pending sales for a short while only, and when cash realizations out of sales are made quickly and finally when payment to creditors is made slowly, the operating cycle would be smaller and consequently the working capital will also be reasonable.

There should be neither too little nor too much investment in working capital. Efficient handling of the operating cycle would make possible the above. Note, what is suggested is optimization, and not minimization of current assets and maximization of current liabilities. That will affect your liquidity and your profitability. Too little means more illiquid, but more profitability, but not more absolute profits. We want both high profitability and high profits. Too much current liability means illiquid but more profitability as it is assumed short-term funds are less expensive for they can be redeemed the moment you don't need thus saving interest. The reverse is true with too little current liability. Actually the business has to trade-off between risk and return. If it wants less risk it has to carry more current assets and less current liability. This will lead to lower profits. Low risk means low profits. If the business takes more risk, ie., it carries less working capital, it might make more profits. There is no guarantee however that higher level of risk yields higher profits.

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In terms of operating cycle concept, too long an operating cycle gives more liquidity but only low returns and vice versa. The optimum operating cycle has to be worked out taking into account the costs and benefits and levels of risk and levels of return for varying lengths of operating cycle.

4. Conservative Approach

The conservative approach states that the proportion of current assets to current liabilities should be kept at 2:1. Is this proportion is to be kept the firm would be able to meet its obligations on time and hence its financial solvency would not be in trouble. However, the limitation of this approach is that it suggests only quantitative measure. It does not suggest as to what type of assets are to be included in current assets. If the current assets contain stock, which is outdated or receivable which are not collectable, than the amount of current assets has no meaning. Further, in the present scenario no firm maintains this ratio, as it's too difficult for them to maintain such a high level of current assets.

5. Cash Forecasting Method

This method of estimating working capital requirements involves forecasting of cash receipts and disbursements during a future period of time. Cash forecast will include all possible sources from which cash will be received and the channels in which payments are to be made so that a consolidated cash position is determined.

This method is similar to the preparation of a cash budget. The excess of receipts over payments represents surplus of cash and the excess of payments over receipts causes deficit of cash or the amount of working capital required.

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7. Projected Balance Sheet Method

Under this method, projected balance sheet for future date is prepared by forecasting of assets and liabilities by following any of the methods stated above. The excess of estimated total current assets over estimated current liabilities, as shown in the projected balance sheet, is computed to indicate the estimated amount of working capital required.

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