

Chapter V Working Capital Management

B. Com III Sem. VI

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Introduction:

Working capital can be understood as a measure of both a company's competence and its short term financial healthiness. For a layman, it purely means the distinction among the current assets and current liabilities. It is the firm's property of current, or short-term, assets. Working capital is normally alienated in two types, viz. gross working capital and net working capital. Gross Working Capital is nothing but the sum of current or circulating resources. Net working capital, means current assets minus current liabilities which provide an exact appraisal of the liquidity situation of firm with the liquidity-profitability dilemma solidly validated in the financial plan of obligations which mature within a twelve-month duration. As we have seen, the two main parts of the working capital are assets and liabilities. First, short-term, or current liabilities comprise the section of funds which have been intended for and raised. Since administrations have to be concerned with correct financial arrangement, these and other funds must be raised sensibly. Short-term or current assets comprise a part of the asset investment conclusion and necessitate meticulous appraisal by the firm's executives. Further, since there exists a close association between sales fluctuations and invested amounts in current assets, a watchful preservation of the appropriate asset and funds should be ensured.

Concept of Working capital:

Working capital naturally means the firm's property of current, or short-term, assets such as cash, receivables, stock, and saleable securities. Working capital refers to that fraction of firm's capital which is requisite for financing short-term or current assets such as cash, saleable securities, debtors, and stocks. In the other words working capital means the sum of funds essential to wrap the cost of operating the venture. Working capital means the resources (i.e.; capital) obtainable and used for day-to-day workings of a venture. It consists generally the segment of assets of a company which are used in or connected to its current operations. It refers to resources which are used during the bookkeeping period to produce a current income of a type which is consistent with main reason of a firm survival. Working Capital is the capital used to

make goods and attract sales. The less Working Capital used to attract sales; the superior is likely to be the return on investment. Working Capital management is about the marketable and financial aspects of stock, credit, purchasing, marketing, and royalty and investment strategy. The superior the profit boundary, the lower is probable to be the level of Working Capital tied up in creating and selling titles. The quicker that we create and sell the books the higher is likely to be the return on investment.

There are two probable interpretations of working capital concept:

1. Balance Sheet Concept

2. Operating Cycle Concept

It goes without saying that the outline of management will be very mainly influenced by the approach taken in defining it. Therefore, the two concepts are discussed alone in a nutshell.

1. Quantitative conception:

The gross working capital refers to the organization's investment in current assets.

In the words of J.S. Milli, "The sum of current assets is the working capital of the business." From the management point of sight, this concept is more appropriate as the management formulates all the strategies on the basis of current assets and concentrates his awareness on the quantum of current assets and their prosperity. Thus, this is a quantitative feature of working capital which emphasizes more on number than its character.

2. Qualitative concept:

The net working capital means the distinction between current assets and current liabilities. If the sum of current assets and current liabilities is equivalent, it means that there is no working capital. The net working capital is a qualitative portion of working capital and it measures the organizations liquidity. It also indicates the extent to which working capital can be financed with long term resources. This concept is helpful only for accountants, investors, creditors and interested persons in the liquidity and financial reliability of the organization.

3. Operating cycle concept:

The amount of working capital requisite by a firm depends upon the extent of manufacture process and the operating cost needed for this reason. The time mandatory to complete the production procedure right from Purchase of raw material to the grasp of sales in cash is known as the operating cycle or working capital cycle.

This concept is more suitable than the qualitative and quantitative aspect since in this case the fund necessary for carrying on the operational actions is treated as working capital. It is also called circulating capital.

1. **H.G, Guttman:**

“Working Capital is the surplus of current assets over current liabilities.”

2. **Hogland, J. Bierman, and A. K. Mc Adams:**

“Working Capital is descriptive of that capital which is not fixed. But the more common use of the working Capital is to consider it as the distinction between the book value of the current assets and current liabilities.”

3. **Brown and Housard:**

“Working Capital represents the overload of current assets over current liabilities”

4. **Weston the Brigham:**

“Working Capital to a firm’s investment in short term assets cash short term securities, accounts, receivables and inventories.”

5. **Meal Baker Malott and Field:**

“Working Capital represents merely the current capital assets.”

6. **J.S. Mill:**

“Working Capital means a sum of current assets”

7. **Prof. C.W. Gerstoberg:**

“A Working Capital shortfall exists if current liabilities exceed current assets.”

8. **Lincoln:**

“Working Capital equals the aggregate value of current assets minus aggregate value of current liabilities”

9. **Prof. S.C. Kuchhal**

“Gross Working Capital may be used to refer to total current assets and net working capital refers to the excess of current assets over current liabilities”

Balance Sheet Concept

There are two interpretation of working capital under the balance sheet concept. It is represented by the surplus of current assets over current liabilities and it is the amount generally obtainable to finance current operations. But, occasionally working capital is also used as a synonym for gross

or total current possessions. In that case, the surplus of current assets over current liabilities is known as the net working capital or net current assets.

The Economists like Mead, Malott, Baket and Field sustain the latter view of working capital. They feel that current assets must be measured as working capital as the whole of it helps to produce profits; and the administration is more concerned with the total current assets as they comprise the total funds obtainable for operational purpose. On the other hand, economists like Lincoln and Salvers support the previous view. They argue that

1. In the long run what matters is the excess of current asserts over current liabilities;
2. It is this concept which helps creditors and investors to judge the monetary soundness of the company;
3. What can always be relied upon to meet the contingencies, is the excess of current assets over the current liabilities since this amount is not to be returned; and
4. This meaning helps to find out the accurate financial situation of companies having the same amount of current assets.

Institute of Chartered Accountants of India, while suggesting a perpendicular form of balance sheet, also endorsed the previous view of working capital when it described net current assets as the distinction between current assets and current liabilities. The conventional description of working capital in terms of the disparity between the current assets and the current liabilities is somewhat puzzling. Working capital is actually what a part of long-term finance is protected in and used for sustaining current actions. Therefore, the larger the amount of working capital so resulting, greater the amount of long-term capital sources siphoned off to short-term actions. It is about stretched working capital position; the logic of the above description would possibly point out distraction to bring in cash, under the conservative method, working capital would obviously remain unaffected. Liquidation of debtors and stock into cash would also keep the stage of working capital unaffected. A comparatively large amount of working capital according to this definition may create a false sense of safety at a time when cash possessions may be insignificant, or when these may be provided gradually more by long-term fund sources in the absence of sufficient profits. Again, under the conservative method, cash enters into the calculation of working capital. But it may have been more suitable to exclude cash from such calculation because one compares cash necessities with current assets less current liabilities. The inference of this in straight working capital computations is that during the financial period

current assets get transformed into cash which, after paying off the current liabilities, can be used to meet other operational expenses. The contradiction, however, is that such current assets as are relied upon to yield cash must themselves to be supported by long-term funds until are transformed into cash. At least, three points seem to appear from the above.

First, the balance sheet meaning of working capital is maybe not as significant, excluding as an indication of the firm's current solvency in repaying its creditors. Secondly, when firms talk of shortage of working capital, they in fact probable imply shortage of cash possessions. Thirdly, in fund flow examination and increase in working capital, as conservatively defined, represents employment or appliance of funds.

Operating Cycle Concept:

A company's operating cycle usually consists of three primary actions; purchasing resources, producing the product, and selling the product. These actions create funds flows that are both unsynchronized since cash disbursements typically take place before cash proceeds.

Example: Payments for store purchases takes place before the collection of receivables. They are unsure because prospect sales and costs, which produce the particular receipts and disbursements, cannot be forecasted with total exactness. If the firm is to uphold a cash balance to pay the bills as they come outstanding. In addition, the corporation must invest in inventories to fill customer orders punctually. And, finally, the company invests in accounts receivable to extend credit to its consumers.

Operating cycle = Inventory alteration period + Receivables alteration period

The inventory conversion period is the extent of time required to manufacture and sell the product.

It is defined as under:

Standard inventory

Inventory change period = $\text{Cost of sales} / 365$

The payables delay period is the length of time the firm is able to reschedule payment on its various resource purchases. Equation is used to calculate the payables delay period:

Accounts due + Salaries, benefits, and Payroll taxes due

Payables delay period = $(\text{Cost of sales} + \text{Selling, general and executive expense}) / 365$

Finally, the cash exchange cycle represents the net time gap between the collections of cash proceeds from product sales and the cash payments for the company's different resource purchases.

It is calculated as follows:

Cash conversion cycle = Operating cycle – Payable delay period

Significance of Working Capital:

Working capital is the life blood and nerve centre of a company. Just as movement of blood is necessary in the human body for maintaining existence, working capital is very necessary to uphold the horizontal running of a company. No business can run productively without an sufficient amount of working capital. The main compensation of maintaining ample amount of working capital is as under:

1. Solvency of the company:

Sufficient working capital helps in maintaining solvency of the company by providing continuous flow of manufacture.

2. For Goodwill of business:

Sufficient working capital enables a business concern to make punctual payments and hence helps in creating and maintaining goodwill.

3. Easy availability of loans:

A business having sufficient working capital, high solvency and good credit standing can assemble loans from banks and other on easy and positive terms.

4. To avail cash discounts:

Enough working capital also enables a concern to avail cash discounts on the purchases and hence it reduces costs.

5. Normal supply of raw materials:

Enough working capital ensures usual supply of raw materials and regular production.

6. Usual payment for day-to-day commitments:

A company which has plenty working capital can make usual payment of salaries, wages and other day-to-day commitments which raises the confidence of its employees, increases their competence, reduces wastages and costs and enhances manufacture and profits.

7. Utilization of favorable market situation:

Only concern with sufficient working capital can exploit positive market conditions such as purchasing its necessities in bulk when the prices are lesser and by holding its inventories for upper prices.

8. Capability to face crisis:

Sufficient working capital enables a concern to face company crisis in emergency periods such as gloominess because during such periods, usually, there is much pressure on working capital.

9. Rapid and regular return on investments:

Every sponsor wants a quick and regular return on his investments. Adequacy of working capital enables a organization to pay quick and usual dividends to its investors as there may not be much force to plough back profits. This gains the assurance of its investors and creates a positive market to raise additional funds in the prospect.

10. High confidence:

Sufficiency of working capital creates an surroundings of safety, confidence, and high self-esteem and creates overall competence in a business.

Factors affecting working capital necessities:

The working capital necessity of a concern depends upon a huge numbers of factors such as nature and size of business, the character of their operations, the length of manufacture cycles, the rate of stock proceeds and the state of economic condition. It is not probable to rank them because all such factors of diverse significance and the influence of individual factors changes for a firm eventually. However the following are significant factors normally influencing the working capital necessity:

1. Nature of Business:

The working capital necessity of a firm fundamentally depends upon the nature of the business. Public usefulness activities like electricity water supply and railways require very restricted working capital because they offer cash sales only and provide services, not products and as such no funds are coupled up in inventories and receivables. Usually speaking it may be said that public utility activities require small amount of working capital, trading and financial firms necessitate comparatively very large amount, whereas manufacturing activities require considerable working capital between these two limits.

2. Scale of Operations:

The working capital necessity of a concern is directly influenced by the size of its company which may be calculated in terms of scale of operations.

3. Production strategy:

In certain organizations the require is subject to wide fluctuations due to seasonal variations. The necessities of working capital in such cases depend upon the production strategy.

4. Manufacturing procedure:

In manufacturing company the necessity of working capital increases in direct proportion of length of manufacturing procedure. Longer the procedure period of produce, larger is the amount of working capital required.

5. Seasonal disparity:

In certain companies raw material is not obtainable throughout the year. They have to buy raw materials in bulk in the season to make sure and continuous flow and process them during the entire year.

6. Rate of stock proceeds:

There is a high degree of inverse co-relationship between the quantum of working capital; and the rapidity or speed with which the sales are affected. A firm having a high rate of stock turnover will need lesser amount of working capital as compared to a company, having a low rate of proceeds.

7. Credit strategy:

The credit strategy of a company in its dealing with debtors and creditors influence significantly the necessity of working capital. A company that purchases its necessity on credit and sell its products/services on cash require smaller amount of working capital.

8. Business rotation:

Business cycle refers to alternate development and contraction in common business actions. In a period of bang i.e., when the business is prosperous, there is a need of bigger amount of working capital due to amplify in sales, rise in prices, optimistic expansion of business contracts sales decline, difficulties are faced in collection from debtors and organisations may have a large amount of working capital lying inactive.

9. Rate of expansion of company:

The working capital requirement of a concern increase with the growth and expansion of its business activities. Though it is difficulties to decide the relationship between the expansion in

the volume of a company and the increase in the working capital of a business, yet it may be accomplished that of normal rate of expansion in the volume of business, we may have retained profits to provide for additional working capital but in fast growth in concern, we shall require bigger amount of working capital.

10. Price stage change:

Changes in the price stage also result on the working capital necessity. Generally the increasing prices will require the firm to maintain bigger amount of working capital as more funds will be essential to maintain the same current assets.

Levels of Working Capital Investment:

In a “perfect” world, there would be no requirement for working capital assets and liabilities. In such a world, there would be no ambiguity, no transaction costs, information search costs, development costs, or production and technology constraints. The unit cost of producing goods would not vary with the amount created. Firms would borrow and provide at the same interest rate. Capital, labor, and produces markets would replicate all available information and would be perfectly aggressive. In such a world, it can be shown that there would be no benefit for invest or finance in the temporary period. But the world in which real firm’s purpose is not perfect. It is characterized by the firm’s significant uncertainty regarding the require, market price, excellence, and accessibility of its own products and those of suppliers. There are transaction costs for purchasing or selling goods or securities. Information is faced with restrictions on the production capacity and knowledge that it can employ. There are spreads among the borrowing and lending rates for investments and financing of equivalent risk. Information is not evenly distributed and may not be completely reflected in the prices in product and labor markets, and these markets may not be completely aggressive. These real-world situations introduce troubles with which the organization must deal. While the firm has many strategies obtainable to address these circumstances, strategies that utilize investment or financing with working capital accounts frequently offer a substantial benefit over other techniques.

Example: Assume that the firm is faced with ambiguity regarding the level of its prospect cash flows and will incur substantial costs if it has inadequate cash to meet expenses. Several strategies may be formulated to address this uncertainty and the costs that it may produce. Among these strategies are some that involve working capital investment or financing such as

holding supplementary cash balances beyond expected needs, holding a reserve of short-term borrowing capacity. One of these strategies might well be the least costly approach to the problem. Likewise, the existence of fixed set-up costs in the manufacture of goods may be addressed in several ways, but one possible alternative is hold stock. By these examples, we see that strategies using working capital accounts are some of the probable ways firms can react to many of the troubles engendered by the deficient and constrained world in which they deal. One of the main features of this world is risk, and it is this attribute that gives rise to many of the strategies connecting working capital accounts. Furthermore, a company's net working capital situation not only is significant from an internal position; it also is widely used as one determine of the organizations' risk. Risk, as used in this background, deals with the likelihood that a firm will encounter financial difficulties, such as the incapability to pay bills on time. All other things being identical, the more net working capital a firm has the more probable that it will be able to meet current financial obligations. Since net working capital is one debt financing. Many loan agreements with commercial banks and other lending institutions contain stipulation requiring the firm on maintain a minimum net working capital position. Likewise, bond indentures also often hold such necessities. The overall policy considers both the level of working capital investment and its finance. In practice, the firm has to determine the joint impact of these two decisions upon its abundance and risk. The size and nature of a firm's investment in current assets is a purpose of a number of diverse factors, including the following factors:

1. The kind of products manufactured.
2. The span of the operating cycle.
3. The sales stages
4. Inventory strategies
5. Credit strategies
6. How resourcefully the firm manages current assets. (Evidently, the more successfully management economizes on the amount of cash, profitable securities, inventories, and receivables employed, the lesser the working capital necessities).

For the purposes of conversation and analysis, these factors are held steady in the rest of our analysis.

Optimal intensity of working capital investment:

The optimal intensity of working capital investment is the level predictable to maximize shareholder prosperity. It is a function of several factors, including the variability of sales and cash flows and the degree of operating and financial leverage engaged by the firm. Therefore no single working capital speculation strategy is essentially optimal for all firms. Proportions of Short-term Financing Not only a firm have to be alarmed about the level of current assets; it also has to determine the proportions of short-and long-term debt to use in financing use in these assets. The decision also involves trade-offs between productivity and risk. Sources of debt financing are classified according to their maturities. Specifically, they can be categorized as being either short-term or long-term, with short-term sources having maturities of one year or less and long-term sources having maturities of superior than one year.

Cost of short-term vs. long-term debt:

Traditionally long-term interest rates usually exceeds short-term rate since of the decrease flexibility of long-term borrowing relative to short-term borrowing. In fact, the effectual cost of long-term debt even went short-term interest rates are equivalent to or greater than long-term rates. With long-term debt, a firm incurs the interest expense even throughout times went it has no immediate need for the funds, such as during seasonal or cyclical downturns. With short-term debt, in contrast, the firm can avoid the interest costs on unnecessary funds by playing of the debt. Therefore, the long-term debt usually is superior to the cost of short-term debt.

Risk of long-term vs. short-term debt:

Borrowing companies have diverse attitudes toward the relative risk of long-term vs. short-term debt then lenders. Whereas lenders usually feel that risk increases with maturity, borrowers feel that there is more risk linked with short-term debt. The reasons for this are twofold. Primarily, there is forever the chance that a firm will not be able to repayment its short-term debt. When a firm's debt matures, it either pays off the debt as part of a debt reduction program or arranges new financing. At the time of maturity, however, the firm could faced with financial problems resulting from such actions as strike, natural disasters, or recessions that cause sales and cash inflows to turn down. Under these circumstances the firm may find it very difficult or even not possible to obtain the needed funds. This could lead to operating and financial difficulties. Second, short-term interest rates tend to change more over time than long-term interest rates. As a result, a firm's interest expenses and predictable earnings after interest and taxes are subject to more different risk over time with short-term debt than with long-term debt.

General working capital strategy:

The goal of a business is to create value for its shareholders. In order to make this value, the business has to create a competitive advantage to exploit inconsistency in the market in which it operates; both its trading and financial environments. As such, Lawrence needs to develop a comprehensive strategic, financial, and implementation plan to facilitate a victorious Working Capital Policy, while fully leveraging existing resources and making their bottom line more profitable while managing risks and events that would threaten the achievement of the endeavor. Working capital administration involves decisions with regard to levels of cash, receivables, and inventory. Too much working capital is costly, reducing profitability and return on capital. However, too little can also be expensive in terms of lost opportunity and the company may suffer increases in cost of capital due to too little cash if it cannot pay bills on time. A company firm can adjust any of the following working capital strategies:

1. Traditional working capital policy
2. Hostile working capital policy
3. Reasonable working capital policy

Let us understand each of them one by one.

1. Traditional working capital policy:

Under traditional approach, the firm carries high investment in current assets such as cash, saleable securities and carries huge amount of inventories and grants generous conditions of credit to clients resulting in a high level of debtors. The consequences of traditional working capital policy are rapid deliveries to customers and more sales due to generous credit conditions.

2. Hostile working capital policy:

Under hostile working capital policy, investment in current assets is extremely low. The firm keeps less amount of cash and profitable securities, manages with less inventories and tight credit terms resulting in low level of debtors. The consequences of aggressive working capital policy are frequent production stoppages, delayed deliveries to consumers and loss of sales.

3. Reasonable working capital policy:

Reasonable approach is forever maintaining essential amount of current assets depending upon sales. A tradeoff among two costs namely carrying cost and scarcity cost determines the best possible level of current assets. Costs that rise with current assets i.e. that cost of financing a

higher level of current assets form transport costs. Scarcity costs are in the form of disturbance in production schedule, loss of Sales and loss of goodwill.

The optimum level of current assets is denoted by the total costs = (transport costs + scarcity costs) minimize at that level.

Scheduling of working capital:

Cash is the lifeline of a business. If this lifeline deteriorates, so does the company's capability to fund operations, reinvest and meet capital necessities and payments. Understanding a company's cash flow healthiness is necessary to making investment decisions. Working capital is of main significance to internal and external analysis since of its close relationship with the current day-to-day operations of a company. Every company desires funds for two purposes.

1. Long-term funds:

Long-term funds are necessary to create production amenities through purchase of fixed assets such as plants, machineries, lands, buildings, etc.

2. Short-term funds

Short-term funds are necessary for the purchase of raw resources, payment of wages, and other day-to-day expenses. It is otherwise recognized as rotating or circulating capital. A business firm must maintain an sufficient level of working capital in order to run its business smoothly. It is worthy to note that both extreme and inadequate working capital position are injurious. Working capital is just like the heart of business. If it becomes weak, the business can hardly flourish and survive. No business can run successfully without an sufficient amount of working capital.

Types of Working Capital:

The concept of Working Capital involves current assets and current liabilities mutually. There are two concepts of working capital. They are Gross and Net Working Capital.

1. Gross Working Capital:

Gross Working Capital refers to the firm's investment in Current Assets. Current assets are the assets, which can be transformed into cash within a financial year or operating cycle. It includes cash, short-term securities, debtors, bills receivables and inventory. The concept of Gross Working Capital focuses notice on two aspects of current assets' executive. They are:

1. Way of optimizing investment in Current Assets.
2. Way of financing current assets.

1. Optimizing Investment in Current Assets:

Investment in Current assets must be just sufficient i.e., neither in surplus nor deficit since excess investment increases liquidity but reduces profitability as idle investment earns nothing and insufficient amount of working capital can threaten the solvency of the firm since of its inability to meet its obligation. It is taken into deliberation that the Working Capital needs of the company may be fluctuating with changing business actions which may cause excess or shortage of Working Capital regularly and punctual management can control the imbalances.

2. Technique of Financing Current Assets:

This aspect points to the require of arranging funds to finance current assets. It says at any time a need for working Capital arises; financing agreement should be made quickly. The monetary manager should have the knowledge of sources of the working capital funds as wheel as investment avenues where idle funds can be temporarily invested.

Net Working Capital:

Net Working Capital means the distinction between Current assets and Current Liabilities are those claims of outsider, which are expected to grown-up for payment within a bookkeeping year. It includes creditors or accounts payables, bills payables and outstanding expenses. Net Working Capital can be positive or negative. A positive net working capital will occur when current assets go beyond current liabilities and vice versa. As compared with the gross working capital, net is a qualitative concept. It indicates the liquidity position of and suggests the extent to which working Capital needs may be financed by enduring sources of funds. Current assets must be optimally additional than Current Liabilities. It also covers the point of exact mixture of long-term and short-term funds for financing current assets. For every firm a particular quantity of net Working Capital is permanent. Therefore it can be financed with long-term funds.

Thus both concepts, Gross and Net Working Capital, are evenly significant for the competent management of Working Capital. There are no definite rules to determine a firm's Gross and Net Working Capital but it depends on the business activity of the firm. Every business concern should have neither redundant nor cause excess WC nor it should be short of WC. Both conditions are harmful and unprofitable for any business. But out of these two, the shortage of WC is more dangerous for the well being of the firms. Working capital may be of several types,

but the most important of them all are equity capital, debt capital, and specialty capital and sweat equity. Each of these is a separate group of financial and has its own benefits and uniqueness.

Equity Capital

Equity capital can be understood as the invested wealth that is not repaid to the investors in the usual course of business. It represents the risk capital staked by the owners through acquire of the firm's common stock. Its worth is computed by estimating the current market worth of everything owned by the firm from which the total of all liabilities is subtracted. On the balance sheet of the firm, equity capital is scheduled as stockholders' equity. Equity Capital is also recognized as equity financing, share capital, net value and book value. There are some companies that are funded completely with equity capital although it is the preferential form for most people because you cannot go bankrupt, it can be extraordinarily costly and require massive amounts of work to grow your venture. For example Microsoft is a model of such an operation because it generates lofty enough returns to justify a pure equity capital arrangement.

Debt Capital:

Debt capital is the capital that a company raises by taking out a loan. It is a loan made to a company that is usually repaid at some future date. Debt capital ranks superior than equity capital for the repayment of annual returns. This means that legally, the interest on debt capital must be repaid in full before any dividends are paid to any suppliers of equity. Debt capital is that type of capital which is infused into a business with the understanding that it have to be paid back at a prearranged future date. In the meantime, the owner of the capital (typically a bank, bondholders, or a wealthy individual), agree to recognize interest in exchange for you using their wealth.

Operating Cycle:

The degree to which profits can be earned will obviously depend, among other things, upon the extent of the sales. A successful sales program is, in other words, essential for earning profits by any business venture. However, sales do not convert into cash directly: there is invariably a time-lag between the sale of goods and the receipt of cash. There is, consequently, a need for working capital in the form of current assets to deal with the difficulty arising out of the lack of instant realization of cash against goods sold. Therefore, sufficient working capital is necessary to

sustain sales activity. Theoretically, this is referred to as the operating or cash cycle. The simplest meaning of the term operating cycle is, “The standard time between purchasing or acquiring inventory and receiving cash earnings from its sale.” The operating cycle can be said to be at the spirit of the need for working capital. The continuing flow from cash to suppliers, to inventory, to accounts receivable and back into cash is what is called the operating cycle. In other words, the term cash cycle means the duration of time essential to complete the following cycle of events:

1. Change of cash into inventory
2. Change of inventory into receivables
3. Change of receivables into cash.

Computation of working capital:

Working Capital (Current Assets-Current Liabilities) = (Raw Materials Stock + Work-in-progress Stock +Finished Goods Stock+ Debtors + Cash Balance) – (Creditors +Outstanding Wages +Outstanding Overheads).

Where,

Raw Materials = Cost (Average) of Materials in Stock

Work-in-progress Stock = Cost of Materials+ Wages +Overhead of Work-in-progress.

Finished Goods Stock = Cost of Materials + Wages +Overhead of Finished Goods.

Creditors for Material = Cost of Average Outstanding Creditors.

Creditors for Wages = Averages Wages Outstanding.

Creditors for Overhead = Average Overheads Outstanding.

Thus,

Working Capital =

Cost of Materials in Stores, in Work-in-progress, in Finished Goods and in Debtors.

Less : Creditors for Materials

Plus : Wages in Work-in-progress, in Finished Goods and in Debtors.

Less : Creditors for Wages

Plus : Overheads in Work-in-progress, in Finished Goods and in Debtors.

Less : Creditors for Overheads.

The work sheet for estimation of working capital requirements under the operating cycle method may be presented as follows:

Estimation of working capital requirements

I Current Assets	Amount	Amount	Amount
Minimum Cash Balance		****	
Inventories :			
Raw Materials	****		
Work-in progress	****		
Finished Goods	****	****	
Receivables :			
Debtors	****		
Bills receivables	****	****	
Gross Working Capital (CA)		****	****
II Current Liabilities:			
Creditors for Purchases		****	
Creditors for Wages		****	
Creditors for Overheads		****	****
Total Current Liabilities (CL)		****	****
Excess of CA over CL			****
+ Safety Margin			****
Net Working Capital			****

The subsequent points are also worth noting while estimating the working capital requisite:

1. Depreciation:

An significant point worth noting while estimating the working capital necessity is the depreciation on permanent assets. The depreciation on the fixed assets, which are used in the manufacture process or other activities, is not considered in working capital assessment. The depreciation is a non-cash expense and there is no funds locked up in depreciation as such and then, it is unseen. Depreciation is neither incorporated in valuation of work-in-progress nor in finished goods. The working capital considered by ignoring depreciation is known as cash basis working capital. In case, depreciation is incorporated in work ing capital calculations, such estimation is known as total basis working capital.

2. Margin of Safety:

Occasionally, a firm may also like to have a safety margin of working capital in order to congregate any emergency. The safety margin may be expressed as a % of total current assets or total current liabilities or net working capital. The safety margin, if necessary, is included in the

working capital estimates to find out the net working capital required for the firm. There is no hard and fast rule about the quantum of safety margin and depends upon the nature and uniqueness of the firm in addition to the current assets and current liabilities.

Problems

- Following is the information of Shri Aruna Industries Ltd. Latur for the year 30th June 2018. Their plan is to sell 30,000 units in the year 2018-2019. The expected cost of goods sold is as under you are required to calculate the working capital requirements.

Particulars	Rs. (Per Unit)
Raw material	100
Manufacturing expenses	30
Selling, administration and financial expenses	20
Selling price	200

The duration at various stages of the operating cycle is expected to be as follows :

Raw material stage 2 months

Work-in-progress stage 1 month

Finished goods stage 1/2 month

Debtors stage 1 month

Assuming that the monthly sales level of 2,500 units, estimate the gross working capital necessity. Expected cash balance is 5% of the gross working capital necessity, and working-progress in 25% complete with respect to manufacturing expenses.

Solution:

**In the books of Shri. Aruna Industries Ltd.
Statement showing requirements of Working Capital
(For the period of 2018-19)**

Particulars	Amt. (Rs.)	Amt. (Rs.)
I Current Assets		
Stock of Raw Material (2,500×2×100)		5,00,000
Work-in-progress		
Raw Materials (2,500×100)	2,50,000	
Manufacturing Expenses 25% of (2,500×30)	18,750	2,68,750
Finished Goods:		

Raw Materials (2,500×½×100)	1,25,000	
Manufacturing Expenses (2,500×½×30)	37,500	1,62,500
Debtors (2,500×150)	3,75,000	
Total	13,06,250	
Cash Balance (13,06,250×5/95)	68750	
Net working capital requirement		13,75,000

Note: Selling, administration and financial expenses have not been incorporated in valuation of closing stock.

2. Following is the information of Ashok Industries Ltd. Latur for the year 31st Mar. 2017. You are required to calculate the working capital requirements from the following information:

Particulars	Rs.
Raw materials	160
Direct labour	60
Overheads	120
Total cost	340
Profit	60
Selling price	400

Raw materials are held in stock on an average for 1 month period. Materials are in process on an average for ½ month period. Finished goods are in stock on an average for 1 month period. Credit allowed by suppliers is 1 month period and credit allowed to debtors is 2 month period. Time lag in payment of wages is 1½ weeks. Time lag in payment of overhead expenses is 1 month. 1/4th of the sales are made on cash basis. Cash in hand and at the bank is anticipated to be Rs. 50,000; and anticipated level of production Cash in hand and at the bank is anticipated to be Rs. 50,000; and anticipated level of production amounts to 1,04,000 units for a year of 52 weeks. You may assume that production is carried on evenly throughout the year and a time period of four weeks is equivalent to a month.

Solution:

Particulars	Rs.	Rs.
I Current Assets:		
Cash Balance		50,000

Stock of Raw Materials (2,000×160×4)		12,80,000
Work-in-progress :		
Raw Materials (2,000×160×2)	6,40,000	
Labour and Overheads (2,000×180×2)×50%	3,60,000	10,00,000
Finished Goods (2,000×340×4)		27,20,000
Debtors (2,000×75%×340×8)		40,80,000
Total Current Assets		91,30,000
II Current Liabilities :		
Creditors (2,000×Rs. 160×4)		12,80,000
Creditors for Wages (2,000×Rs. 60×1½)		1,80,000
Creditors for Overheads (2,000×Rs. 120×4)		9,60,000
Total Current Liabilities		24,20,000
Net Working Capital (CA– CL)		67,10,000

Summary

- Working capital is a financial metric which represents operating liquidity accessible to a business.
- Working capital can be understood as a measure of both a company's competence and its short term financial healthiness.
- Working capital is normally alienated in two types, viz. gross working capital and net working capital.
- Gross Working Capital is nothing but the sum of current or circulating resources.
- Net working capital, means current assets minus current liabilities which provide an exact appraisal of the liquidity situation of firm with the liquidity-profitability dilemma solidly validated in the financial plan of obligations which mature within a twelve-month duration.

- Working capital obviously means the firm's property of current, or short-term, assets such as hard cash, receivables, stock, and marketable securities.
- Along with fixed assets such as plant and equipment, working capital is measured a part of operating capital.
- It is computed as current assets minus current liabilities.
- If current assets are less than current liabilities, an organization has a working capital shortage, also called a working capital shortfall.
- Working capital represents the money available with the corporation for day-to-day operations.
- Working capital finances the cash alteration sequence.
- Company cannot stay alive with negative working capital which represents that the company has no money for day-to-day operations.
- Some of the factors that can influence a firm's working capital stage are type/nature of industry, Volume of sales, seasonality and lengths of operating and cash cycle.
- Probable interpretations of working capital concept:
 1. Balance Sheet Concept
 2. Operating Cycle Concept
- A company's operating cycle usually consists of three primary actions; purchasing resources, producing the product, and selling the product.

Questions

Fill in the blanks:

1. There exists a close association between sales fluctuations and invested amounts in
2. Institute of Chartered Accountants of India suggests and follows the structure of a form of balance sheet.
3. Under the conventional method, enters into the calculation of working capital.
4. A company's operating cycle naturally consists of three most important activities:, and
5. The shows the time period over which additional no impulsive sources of working capital financing must be obtained to carry out the firm's actions.
6. The unit price of producing goods would not differ with the amount

7. There areamong the borrowing and lending rates for savings and financing of equivalent risk.
8.deals with the likelihood that a firm will encounter financial difficulty, such as the incapability to pay bills on time.
9. Short-term interest rates tend to change over time than long-term interest rates.
10. The level of working capital investment is the level predictable to maximize shareholder's assets.
11. single working capital investment strategy is necessarily most favorable for all organizations.
12. The objective of a corporation is to generate value for it's
13. Under working capital strategy, investment in current assets is extremely low.
14. Too much working capital is expensive, falling and

Answer

1. Current assets 2. perpendicular 3. Cash 4. Purchasing resources, producing the product, selling the product
5. Cash alteration cycle 6. Produced
7. Spreads 8. Risk 9. More 10. Most favorable 11. No
12. Shareholders 13. Aggressive 14. Profitability, return on capital

State whether the following statements are true or false:

1. No business can run effectively without a sufficient amount of working capital.
2. Working capital enables a concern to benefit cash discounts on the purchases and therefore it reduces costs.
3. Working capital ensures normal supply of raw materials and constant production. Working capital necessity of a concern is not influenced by the size of its industry.
4. Working capital necessity of a concern is not influenced by the size of its industry.
5. There is a high degree of direct co-relationship among the quantum of working capital; and the speed or speed with which the sales are affected.
6. The working capital necessity of a concern reduces with the growth and growth of its companies activities.

Answer

1. True 2. True 3. True 4. False 5. False 6. False

Answer the following questions:

1. Which segment of funds would the current liabilities constitute in a firm?
2. What might occur if the current liabilities of a firm are superior to the current assets it has? What will be its result on the working of the firm?
3. Under insistent working capital policy, investment in current assets is very short, discuss on this point.
4. What will be the consequences of traditional working capital policy?
5. Write your opinion, which would be larger-long-term interest rates or short-term interest rates and why?
7. Why does every corporation vying to generate competitive advantages in the market?
8. A firm's net working capital situation not only is significant from an interior standpoint; it also is widely used as one measure of the firm's risk. Validate this statement.
9. What do you think as the cause for the public utility undertakings needing very restricted working capital?
10. Do you think that a sufficient working capital enables a firm to exploit of positive market conditions? Support your answer with appropriate reasons.
11. A firm's net working capital is occasionally defined as the portion of current assets financed with long-term funds; can you show diagrammatically why this meaning is valid?

Problems

1. Following is the information of Rahul Industries Ltd. Aurangabad for the year 31st Mar. 2018. The plan of company is to sell 50,000 units in the year 2018-2019. The expected cost of goods sold is as under you are required to calculate the working capital requirements.

Particulars	Rs. (Per Unit)
Raw material	150
Manufacturing expenses	50
Selling, administration and financial expenses	30
Selling price	300

The duration at various stages of the operating cycle is expected to be as follows :

Raw material stage 4 months

Work-in-progress stage 2 month

Finished goods stage 3/4 month

Debtors stage 2 month

Assuming that the monthly sales level of 1,500 units, estimate the gross working capital necessity. Expected cash balance is 6% of the gross working capital necessity, and working-progress in 20% complete with respect to manufacturing expenses.

2. Following is the information of Shital Industries Ltd. Nagpur for the year 31st Mar. 2017.

You are required to calculate the working capital requirements from the following information:

Particulars	Rs.
Raw materials	150
Direct labour	50
Overheads	100
Total cost	300
Profit	50
Selling price	350

Raw materials are held in stock on an average for 2 month period. Materials are in process on an average for 3/4 month period. Finished goods are in stock on an average for 2 month period. Credit allowed by suppliers is 1 month period and credit allowed to debtors is 1 month period. Time lag in payment of wages is 1½ weeks. Time lag in payment of overhead expenses is 2 month. 1/2th of the sales are made on cash basis. Cash in hand and at the bank is anticipated to be Rs. 40,000; and anticipated level of production Cash in hand and at the bank is anticipated to be Rs. 50,000; and anticipated level of production amounts to 1,00,000 units for a year of 52 weeks. You may assume that production is carried on evenly throughout the year and a time period of four weeks is equivalent to a month.

3. Following is the information of Ankur Industries Ltd. Parbhani for the year 31st Mar. 2017. You are required to calculate the working capital requirements from the following information:

Particulars	Rs.
Raw materials	200
Direct labour	75
Overheads	125
Total cost	400
Profit	100
Selling price	500

Raw materials are held in stock on an average for 1 month period. Materials are in process on an average for 1/2 month period. Finished goods are in stock on an average for 1 month period. Credit allowed by suppliers is 3 month period and credit allowed to debtors is 2 month period. Time lag in payment of wages is 1 weeks. Time lag in payment of overhead expenses is 3 month. 1/2th of the sales are made on cash basis. Cash in hand and at the bank is anticipated to be Rs. 50,000; and anticipated level of production Cash in hand and at the bank is anticipated to be Rs. 60,000; and anticipated level of production amounts to 1,10,000 units for a year of 52 weeks. You may assume that production is carried on evenly throughout the year and a time period of four weeks is equivalent to a month.