UNIT - IV

WORKING CAPITAL MANAGEMENT

Working capital Management :-

Working capital management is a business strategy designed to ensure that a company operates efficiently by monitoring and using its current assets and liabilities to the best effect.

- → Requires monitoring a company's assets and liabilities to maintain sufficient cash flow to meet its short-term operating costs and short term debt obligations.
- → Involves tracking three ratios namely the working capital ratio, the collection ratio and the inventory ratio
- → Improve a company's earnings and profitability through efficient use of its resources

Working capital is the difference between current assets and current liabilities. It is not to be collected with trade working capital

The basic calculation of working capital is based on the entity's gross current assets

Nature of working capital management:-

① manages operating expenses:-

working capital management manages all operating expenses of a business organization. It regulates all funds needed for the purchase of raw materials, spare parts and payments of wages and other daily expenses. proper management of working capital ensures that all required resources are frequently purchased as per the business need.

② Avoids funds crisis:-

It ensures that there is no situation of fund crisis with in business organization. working capital management focuses on maintaining an optimum level of funds at every point of time. All business capital is invested into adequate assets that enhance the cash management thereby maintaining proper liquidity ratio.

③ Keep business moving:-

working capital management plays an efficient role in keeping the wheel of business always moving. Right amount of cash is always available to meet the day to day expenses leading to uninterrupted continuation of business. It monitors all account payable and account receivables of business and utilizes all funds in efficient way.

④ Fulfill short term obligations:-

Meeting all short term obligations of business timely is a key role of working capital management. With proper management of funds organization is able to pay off their creditors in timely manner due to availability of sufficient amount of funds. Adequate working capital also enable in lending short term credit facilities to customers by business.

⑤ Avail cash discounts:-

Right management of working capital provides opportunity for availing cash discount facilities provided by supplier. Business with adequate working capital is able to purchase raw materials in bulk available at huge discounts from supplier on doing cash payments

⑥ Facilitates business growth:-

Working capital management leads to expansion and growth of business enterprises. It focuses on raising the overall productivity and profitability by ensuring that all business funds are efficiently utilized. Funds are acquired for business at economic cost and timely deployed in efficient set of assets yielding better returns

(7) Regulate business reputations -

It regulate the overall reputation of business organization in market. proper management of working capital leads to timely payments of all outstanding bills and short debts by business. maintenance of adequate fund always enhance the overall liquidity position, credit worthiness and builds goodwill of a company

Scope of working capital management :-

(1) ensures business continuity:-

working capital management enables business is continuing their activities. Uninterrupted. proper management of working capital will leads to availability of sufficient funds at all times. Business will receive regular supply of raw materials from supplier by paying them on time which will help in continuing production activities regularly

(2) Improves business solvency :-

Business managing their working capital efficiently are able to maintain proper liquidity It will improve their cash management and will reduce their dependency on external financing as large amount of funds is tied up in working capital management of working capital will enable them in paying all short term debts and operating expenses on time

③ Ability to face crisis:-

Efficient management of working capital enables business in facing emergency situations such as depression. It ensures proper availability of funds at all times so that business can easily face time of crisis or peak demand where they need to boost up their production

④ Increase credit worthiness:-

Improving the business value and position in market is another important advantage of working capital management. Businesses having sound working capital position enjoy better liquidity and credit rating It helps them in raising funds from various external sources easily at favourable terms.

⑤ Better relations with supplier and creditors:-

management of working capital leads to better relations with supplier and all creditors. It enables business in paying all dues to suppliers or trade creditors on time through always maintaining sufficient amount of funds. This will result in gaining confidence of creditors towards business

⑥ Helps in expansion:-

Every business wants to expand its activities over the time for which it needs additional capital. proper management of cash will provide business with necessary funds timely and make expansion programs successful.

7. competitive advantage:-

Business through management of funds is able to reduce their cost and avoid wastages of resources. They can earn sufficient profits by offering their products even at low prices to customers. It will help in gaining competitive advantage in market and generating large revenue

Importance of working capital management

1. Improves liquidity and solvency position:-

working capital management helps in increasing the liquidity and solvency position of the business. proper management of working capital enables timely payment of all short term debts as well as various operating expenses

It ensures adequate investment of business capital in assets maintaining a proper ratio between current assets and current liabilities. This improves their cash management and maintains the proper liquidity of funds in business so that they are less dependent on external financing.

2. Ensures uninterrupted business operations:-

management of working capital ensures continuous and smooth functioning of business operations. It aims at maintaining an adequate amount of funds at every point of time in business. Business is getting their raw materials by timely paying their supplier. Timely payment of employee's wages and salaries will motivate them to work regularly and also the business is able to meet their daily operating expenses timely with sufficient availability of funds. All this will lead to uninterrupted operations of the business

③ Increase profitability and productivity:-

working capital improves the efficiency of organizations. It focuses on improving productivity and profitability. management of working capital helps in managing the account payables and account receivables of the business. It helps in procuring required capital economically and utilising it efficiently. This enables increasing the profitability of the organizations.

④ Enhance Goodwill:-

Maintenance of adequate working capital helps in the business in improving their goodwill. Businesses with the sound working capital position are able to make timely and prompt payments of all their outstanding bills. They are able to pay all their short Term liabilities and operating expenses timely. Timely payment of all expenses helps in enhancing the reputation of the business.

⑤ Improves Creditworthiness:-

A better working capital position increases creditworthiness of organizations. Such an organization enjoys better solvency and good credit rating. They are easily able to raise funds from banks and financial institutions as per favourable terms. It helps them in meeting all their additional capital requirements in case of expansion and diversification plans.

⑥ Timely payments or Dividends:-

Proper management of working capital helps in paying regularly returns to shareholders. The availability of sufficient funds helps the organization in a timely and orderly payment of dividends. It helps in gaining the confidence of shareholders and makes them happy.

⑦ Helps in facing contingencies:-

Every business faces certain contingencies in its course of operations. Maintenance of sufficient working capital helps in facing the expenses of unforeseen contingencies like seasonal fluctuations, depression, financial crisis occuring from huge losses etc. They can easily overcome these unfavorable situations if sufficient funds are available and continue with their activities.

Elements of working capital :-

These are 3 main components associated with working capital management

① Accounts Receivable :-

Accounts Receivable are revenue due - what customers and debtors owe to a company for past sales. A company must collect its receivables in a timely manner so that it can use those funds to meet its own debts and operational costs. Accounts receivable appear as assets on a company's balance sheet, but they do not become assets until they are collected. Days sales outstanding is a metric used by analysts to assess a company's handling of accounts receivables. The metric reveals the average number of days a company takes to collect sales revenues

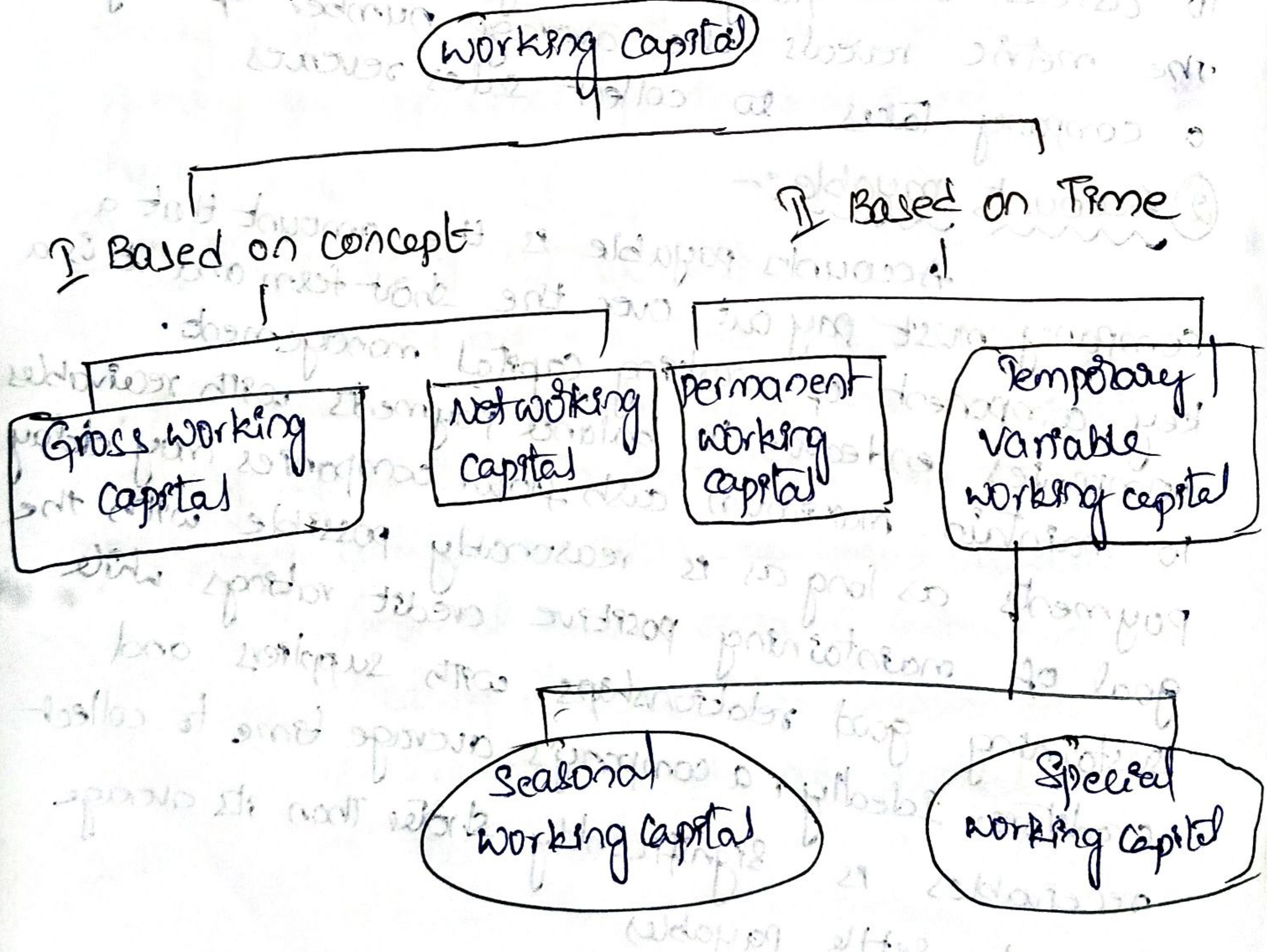
② Accounts payable :-

Accounts payable is the amount that a company must pay out over the short term and it is a key component of working capital management. companies endeavor to balance payments with receivables to maintain maximum cash flow. companies may delay payments as long as is reasonably possible with the goal of maintaining positive credit ratings while sustaining good relationships with suppliers and creditors. Ideally, a company's average time to collect receivables is significantly shorter than its average time to settle payables

③ **Inventory :-**

Inventory is a company's primary asset that it converts into sales revenue. The rate at which a company sells and replenishes its inventory is a measure of its success. Investors also consider the inventory turnover rate to be an indication of the strength of sales and how efficient the company is in its purchasing and manufacturing. Low inventory means that the company is in danger of losing out on sales, but excessively high inventory levels could be a sign of wasteful use of working capital.

Types of working capital



2 Based on concept :-

* Gross working capital :-

It refers to the amount of funds invested in current assets. It is the capital invested in total current assets of the enterprise. Current assets are those assets which in the ordinary course of business can be converted into cash with in a short period of normally one accounting year

Gross working capital = Total current assets

* Net working capital :-

It is the excess of current assets over current liabilities. It may be positive or negative. When the current assets exceeds its current liabilities the working capital is positive and the negative working capital results. When the current liabilities are more than the current assets.

Current liabilities are those liabilities which are intended to be paid in the ordinary course of business with in a short period of normally one accounting year out of the assets or the income of the business.

II Based on Time:-

* **Permanent / Fixed working capital:-**

Permanent / fixed working capital is the minimum amount which is required to ensure effective utilizations of fixed facilities and for maintaining the circulation of current assets. There is always a minimum level of current assets which is continuously required by the enterprise to carry out its normal business operations. characteristics of permanent WC are

→ continue to exist for a long period of time in the business activities

→ constantly changes in a business from one asset to another

→ Gross the size & volume of business operations.

* **Temporary / Variable working capital:-**

Temporary working capital is the amount of working capital which is required to meet the seasonal demands and some special exigencies.

It has a good relationship with sales and degree of production. There is never a consistent production and sales throughout a year. Incase of heavy order received, there is an increase in production sales. To fulfill large order you will require additional money as a part of temporary working capital.

Temporary working capital is again divided into 2 Types

(a) Seasonal working capital

(b) Special working capital

(a) Seasonal working capital:-

Regular demand arises considering festival. In this way, regular working capital means an amount to working capital maintained to satisfy their regular demand for the item. It is relevant towards businesses having that the effect concerning seasons. For example, the manufacturer of sweaters for whom important period is the winters. Generally their working capital necessity would increase with in season considering higher sales during those period then go down

(b) Special working capital:-

Special programmers may be done for business development. That the programmers are advertisement campaign, deals advertising strategies, system development tasks, marketing researching strategies, establishing of the latest merchandise expansion to markets and more. Unique working capital is the fact that sudden increase in short term working capital which occurs due to a special occasions. for example. our country whenever organizes olympic games there is a sudden rise in business activity and so all the business need additional working capital to fulfill the demand gap.

Differences between Gross working capital and Net working capital:

Parameters	Gross working capital	Net working capital
Definition	Gross working capital is the summation of all current assets of a firm.	Net working capital refers to a differences between a firm's current assets and current liabilities
Concept	Quantitative concept	Qualitative concept

Indicator	Indicates the amount available to fund current assets and related requirements	Indicates a firm's capability to pay off operating expenses and current liabilities without any problem
Increase in value	The value of Gross working capital increases with an increase in borrowing	An increase in debt will not result in the boost of a firm's working capital. It can only rise with an increase in retained profits and the sale of fixed assets
Formula	Gross working capital = Receivables + cash & marketable securities + Inventories + short term Investments + other current assets	Net working capital = Total current assets − Total current liabilities
Suitability	It is suitable for companies	suitable for partnership firms & sole traders

usage	Gross working capital in addition to other financial metrics helps to determine the financial standing of a business firm	Net working capital is efficient financial tool for estimating the financial standing of a firm
Popularity	concept is quite popular in financial management	concept is quite popular in the accounting system

Differences between permanent and Temporary working capital:

Permanent W.C	Temporary W.C
* Its the minimum capital to maintain inorder to meet operational levels	* Its the additional working capital to permanent working capital
* Fixed working capital	* Variable working capital
* Independent of variable factors	* Dependent on variable factors
* stable in nature	* sometimes increases/decreases in nature
* Financed through long term funds	* Financed through short term funds
* categorized into regular and reserve working capital	* categorized into seasonal and special working capital

Factors determining working capital:

The working capital requirements of a concern depend upon a large number of factors such as nature and size of business, the character of their operations, the length of production cycles, the rate of stock turnover and the state of economic situation. It is not possible to rank them because of all such factors are of different importance and the influence of individual factors changes for a firm over time. The factors are as follows

(a) Nature or character of Business:-

The working capital requirement of a firm basically depend upon the nature of its business. public utility undertaking like electricity, water supply and Railways need very limited working capital because they offer cash sales only and supply services not products and as such no funds are tied up in inventories and receivables

The trading and financial firms require less investment in fixed assets but have to invest large amounts in current assets like inventories, receivables and cash as such they need large amount of working capital

(b) Size of Business / scale of operations:-

The working capital requirements of a concern are directly influenced by the size of its business which may be measured in terms of scale of operations. Greater the size of a business unit, larger will be the requirements of working capital. In some cases even a smaller concern may need more working capital due to high overhead charges, inefficient use of available resources and other economic disadvantages of small size

(C) production policy:-

In certain industries the demand is subject to wide fluctuations due to seasonal variations. The requirements of working capital in such cases depend upon the production policy

The production could be kept either steady by accumulating inventories during slack periods with a view to meet high demand during the peak season or the production could be curtailed during the slack season and increased during the peak season. If the policy is to keep production steady by accumulating inventories it will require higher working capital

(d) Credit policy :-

The credit policy of a concern in its dealings with debtors and creditors influence considerably the requirements of working capital. A concern that purchases its requirements on credit and sells its products / services on cash requires lesser amount of working capital. A concern buying its requirements for cash and allowing credit to its customers, shall need larger amount of working capital as very huge amount of funds are bound to be tied up in debtors or bills receivables

(e) Seasonal variations :-

In certain industries raw material is not available throughout the year. They have to buy raw materials in bulk during the season to ensure an uninterrupted flow and process them during the entire year. A huge amount is thus, blocked in the form of material inventories during such season which gives rise to more working capital requirements. During the busy season, a firm required larger working capital than in the slack season

(f) Business cycle :-

It refers to alternate expansion and contradiction in general business activity. In a period of boom i.e, when the business is prosperous, there is a need for larger amount of working capital due to increase in sales, rise in prices etc. In the times of depression i.e, when there is a down swing of this cycle, the business contracts, sales decline, difficulties are faced in collections from debtors and firms may have a large amount of working capital idle.

(g) changes in price level :-

changes in price level also affects the working capital requirements

(a) The rise in price will require the firm to maintain large amount of working capital

(b) when decrease in price will require the firm, it is needed decreasing the working capital of business

(h) potential growth:-

Growth potential is an organization's future ability to generate larger profits expand its workforce and increase production.

If the business is to be extended in future more working capital is required more amount of working capital is required to meet the expansion need of business.

(i) Dividend policy:-

→ It is the set of guidelines a company uses to decide how much of its earnings it will pay out to shareholders

→ A desire to maintain an established dividend policy may affect working capital

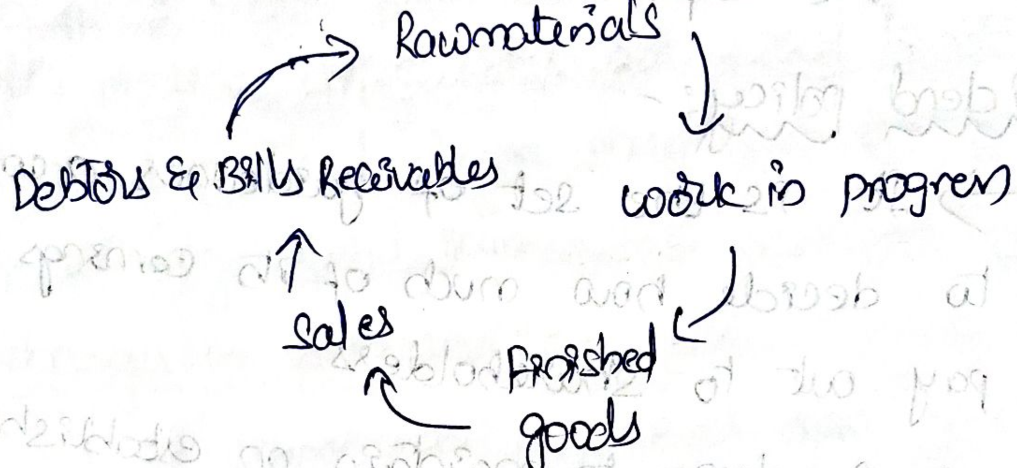
→ The need for working capital can be met with the retained earning

→ If a firm retains more profit and distributes lower amount of dividend it needs less working capital.

(j) Working capital cycle:-

The working capital cycle (WCC) is the amount of time it takes to turn the net current assets and current liabilities into cash.

When the WCC of a firm is long, it will require larger amount of working capital. But if WCC is short it will need less working capital.



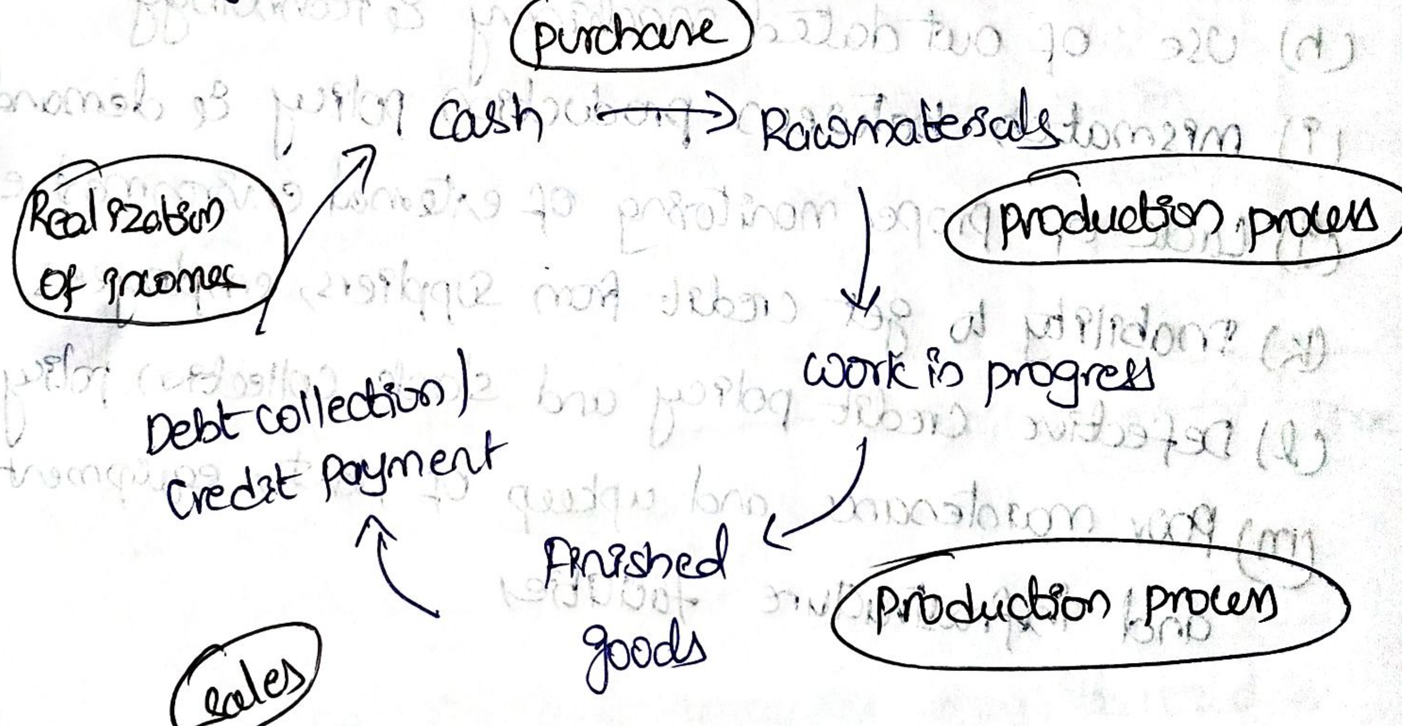
(k) Operational Efficiency:-

Operational efficiency is the capability to deliver products/services to its customers in the most effective manner. The operating efficiency of a firm also affects the firm's need of working capital. The operating efficiency of a firm results in optimum utilization of assets.

The optimum utilization of assets in turn results in more fund release for working capital

Operating cycle

The operating cycle of a company consists of time period between the procurement of inventory and the collection of cash from receivables. It is the length of time between the company's outlay on raw materials, wages and other expenses and inflow of cash from sale of goods. It is a important concept in management of cash and management of working capital.



Operating cycle of a Business.

Reasons for prolonged operating cycle:-

(a) Purchase of materials in excess / short of requirements

(b) Buying inferior, defective materials

(c) Failure to get trade discount, cash discount

(d) Inability to purchase during seasons

(e) Defective inventory policy

(f) Use of protracted manufacturing cycle

(g) Lack of production planning, coordination and control

(h) Use of outdated machinery & technology

(i) Mismatch between production policy & demand

(j) Lack of proper monitoring of external environment etc

(k) Inability to get credit from suppliers, employees

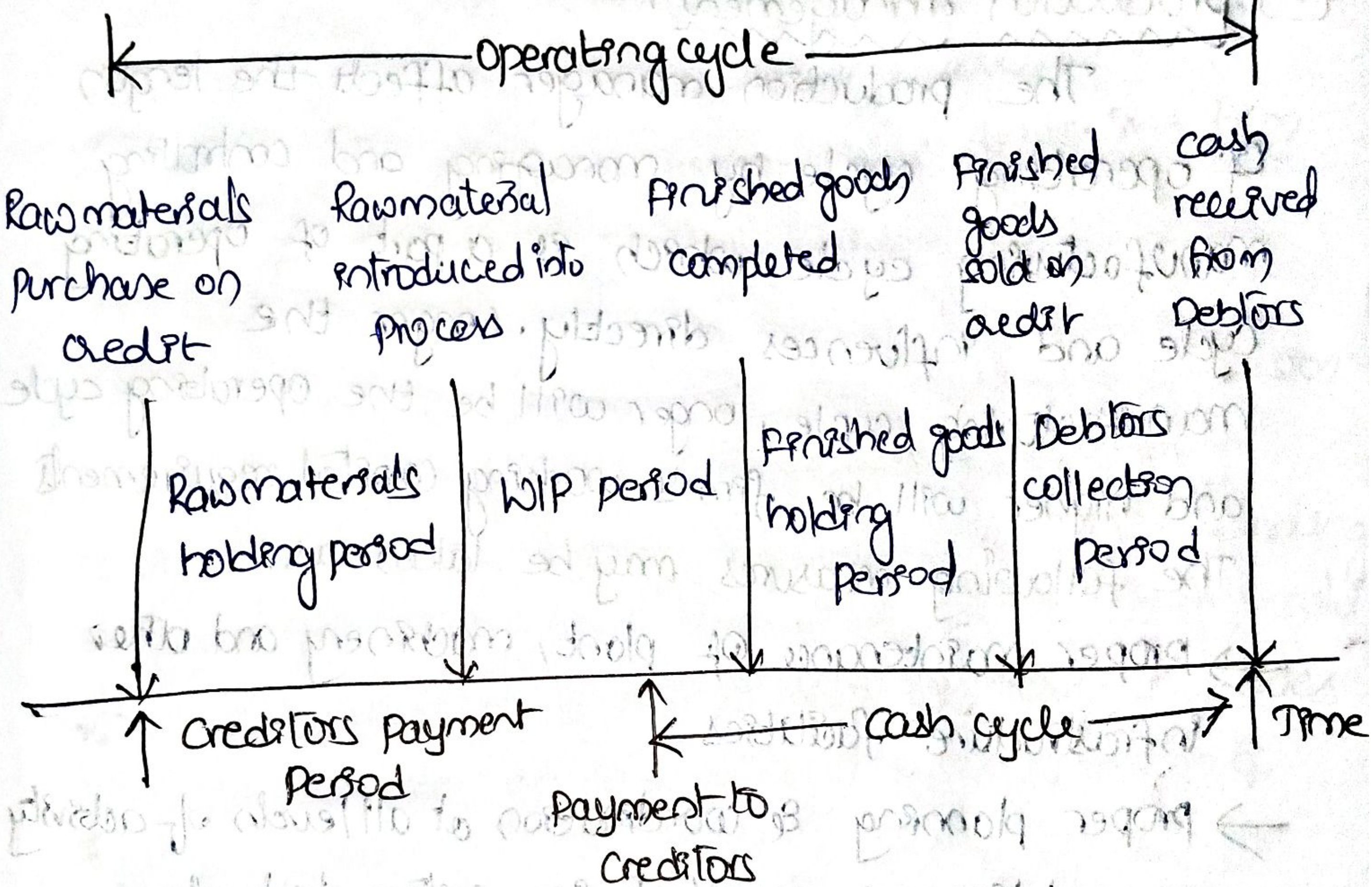
(l) Defective credit policy and slack collection policy

(m) Poor maintenance and upkeep of plant, equipment and infrastructure facilities

How to reduce operating cycle?

The aim of every management should be to reduce the length of operating cycle or the number of operating cycle in a year, only then the need for working capital decreases.

Duration of operating cycle:-



The following remedies may be used to contrasting the length of operation cycle period

(1) purchase management:-

The purchase manager owes a responsibility in ensuring availability of right type of materials in right quantity of right quality at right price on right time and at right place. These six R's contribute greatly in the improvement of length of operating cycle. Further streamlining of credit from supplier and inventory policy also helps the management

(2) production management :-

The production manager affect the length of operating cycle by managing and controlling manufacturing cycle which is a part of operating cycle and influences directly. Longer the manufacturing cycle, longer will be the operating cycle and higher will be firm's working capital requirements. The following measures may be taken as :-

→ proper maintenance of plant, machinery and other infrastructure facilities

→ proper planning & coordination at all levels of activity

→ upgradation of manufacturing system, technology

→ selection of the shortest manufacturing cycle out of various alternatives etc

(3) marketing management :-

The sale and production policies should be synchronized as far as possible. Lack of matching increases the operating cycle period. production of qualitative products at lower costs enhances sales of the firm and reduces finished goods storage period. Effective advertisement, sales promotion activities, use of distribution channel etc reduce the storage period of the finished products

(4) Credit collection policies:-

Sound credit and collection policies enables the the finance manager in minimising investment in working capital in the form of book debts. The firm should be discretionary in granting credit terms to its customers.

In order to see that the receivable conversion period is not increased, the firm should follow a rationalized credit policy based on the credit standing of customers and other relevant facts. The firm should be prompt in making collections, slack collection policies will tie up funds for long period increasing length of operating cycle

(5) External Environment:-

The length of operating cycle is equally influenced by external environment. Abrupt changes in basic conditions would affect the length of operating cycle. fluctuations in Demand, competitors, production and sales policies, price fluctuations etc should be evaluated carefully by the management to minimize their adverse impact on the length of operating cycle

(6) personnel management:-

The personnel manager by framing sound recruitment, selection, training, placement, promotion, transfer, wages, incentives & appraisal policies can contrast the length of operating cycle.

Use of Human Resource Development (HRD) technique in the organization enhances the morale and zeal of employees thereby reduces the length of operating cycle. proper maintenance of plant, machinery, infrastructure facilities, timely replacement, renewals, overhauling etc will contribute towards the control of operating cycle

calculation of operating cycle:-

operating cycle = Inventory period + Accounts Receivable period

↓ Inventory sits in storage until sold

↓ cash collected from the sale of inventory

Uses of the operating cycle formula

Using the operating cycle formula above

* **Inventory period calculation**

$$\text{Inventory period} = \frac{365}{\text{Inventory Turnover}}$$

$$\text{Inventory Turnover} = \frac{\text{cost of Goods sold}}{\text{Average Inventory}}$$

* **Accounts Receivable period calculation**

$$\text{Accounts Receivable Period} = \frac{365}{\text{Receivables Turnover}}$$

$$\text{Receivable Turnover} = \frac{\text{credit sales}}{\text{Average Account Receivables}}$$

$$\therefore \text{operating cycle} = \frac{365}{\dfrac{\text{cost of Good sold}}{\text{Average Inventory}}} + \frac{365}{\dfrac{\text{credit sales}}{\text{Average Account Receivables}}}$$

Importance of the operating cycle:-

The operating cycle offers an insight into a company's operating efficiency. A shorter cycle is preferred and indicates a more efficient and successful business. A shorter cycle indicates that a company is able to recover its inventory investment quickly and possess enough cash to meet obligations. If a company's OC is long, it can create cash flow problems.

A company can reduce its OC in 2 ways

1. Speed up the sale of its inventory:- If a company is able to quickly sell its inventory the OC should decrease

2. Reduce the time needed to collect receivables:- If a company is able to quickly collect credit sales more quickly the OC would decrease

Proforma of working capital Requirements

Particulars		Amount (Rs)
I. current Assets		
(a) minimum cash and Bank balance		xxx
(b) Inventories (stock):		
Raw materials	xx	
work in progress	xx	
Finished goods	xx	xxx
(c) Receivables:-		
Debtors	xx	
Bills	xx	xxx
Total current assets (Gross WC)		xxx
CA = (a+b+c)	xxx	
II current liabilities		
creditors for purchases	xxx	
creditors for wages	xxx	
creditors for overhead	xxx	
Total current liabilities (CL)		xxx
Net W.C (CA - CL)		xxx
Add:- margin for contingency (safety margin)		xxx
Net working capital required →		xxx

(1) Prepare an estimate of working capital requirement from the following information

a) project annual sales 1,00,000 units

b) Selling price Rs. 8 per unit

c) % age of net profit on sales 25%

d) Average credit period allowed to customers 8 weeks

e) Average credit period allowed by suppliers 4 weeks

f) Average stock holding in terms of sales requirements 12 weeks

g) Allow 10% for contingencies

statement of working capital Requirements

	Rs
Current Assets:	
Debtors (8 weeks) $600000 \times \frac{8}{52}$	92,308
stock (12 weeks) $600000 \times \frac{12}{52}$	1,38,462
(A)	2,30,770
Less:- current liabilities	
Creditors (4 weeks) $600000 \times \frac{4}{52}$ (B)	46,154
Net working capital (A-B)	1,84,616
Add:- 10% contingencies	18,462
working capital required →	2,03,078

working notes:-

(a) Sales = 1,00,000 × 8 = ₹ 8,00,000

profit = 25% on 8,00,000

$8,00,000 \times \frac{25}{100} = 2,00,000$

cost of sales = Rs. 6,00,000

(b) cost of sales assumed to be purchases

(2)

Items	Average Period of credit	Estimate for the first year (Rs)
Purchase of material	6 weeks	26,00,000
wages	1 1/2 weeks	19,50,000
overhead:-		
Rent, rates, etc	6 months	1,00,000
salaries	1 month	8,00,000
other overheads	2 months	7,50,000
Sales (cash)	—	2,00,000
Sales (credit)	2 months	60,00,000
Average amount of stock & working progress	—	4,00,000
Average amount of undrawn profit	—	3,00,000

It is assumed that all expenses and income were made at even rate for the year.

statement of working capital Requirements

Particulars	Rs	Rs
Current Assets:-		
stock & work in progress	4,00,000	
Debtors (60,00,000 x $\frac{2}{12}$)		10,00,000
(A)		14,00,000
Less:- Current liabilities		
Creditors (26,00,000 x 6/12)	3,00,000	
wages outstanding (19,50,000 x 3/2 x 1/52)	56,250	
Rent, rates outstanding (1,00,000 x 6/12)	50,000	
salaries outstanding (8,00,000 x 1/12)	66,667	
other overheads outstanding (7,50,000 x 2/12)	1,25,000	
		5,97,917
Net working capital required (A-B)		8,02,083