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Branch: ECE

Semester: 6th Sem.

**Subject: Entrepreneurship
Development & Management
(EDM)**

Chapter 1

Entrepreneurship

Definition of Entrepreneurship

- An Entrepreneur One who Organizes, Manages and Assumes Risk of a Business or Enterprise
- An entrepreneur is an individual who forecasts future demand for a product or service and arranges a business enterprise to respond to their demand.
- Entrepreneurship is the process of identifying opportunities in the market, mobilising the resources required to pursue these opportunities the resources to exploit the opportunities for long term gains

Need of Entrepreneurship

- Entrepreneurs Create New Businesses
- Entrepreneurs Add to National Income
- Entrepreneurs Create Social Change
- Generation of Employment
- Competitive Market
- Balanced regional growth
- Economic Independence

Characteristics Of An Entrepreneur

- Initiator
- Opportunity Seeker
- Calculated Risk Taker
- Information Seeker
- Committed to work
- Proper Planer
- Self confident
- Efficient Supervisor
- Quality Conscious
- Efficiency Lover
- Persistent
- Assertive

Function Of Entrepreneur

- Perceiving Market Opportunities
- Gaining Command Over Scarce Resources
- Purchasing Inputs
- Managing Finances
- Upgrading process and product
- Industrial Engineering
- Managing production
- Marketing The Products
- Managing Customer And supplier Relation
- Dealing with Bureaucrats

Barriers in Entrepreneur

- Management Factors
- Production Factor
- High Fixed Cost
- Marketing problems
- Financial Problem
- Neglect Of Business, Fraud OR Disaster Etc.

Sole Proprietorship

A sole proprietorship, also known as the sole trader or simply a proprietorship, is a type of enterprise that is owned and run by one natural person and in which there is no legal distinction between the owner and the business entity. The owner is in direct control of all elements and is legally accountable for the finances of such business and this may include debts, loans, loss, etc.

Partnership Firm

A partnership is an arrangement where parties, known as partners, agree to cooperate to advance their mutual interests. The partners in a partnership may be individuals, businesses, interest based organizations, schools, governments or combinations. Organizations may partner to increase the likelihood of each achieving their mission and to amplify their reach. A partnership may result in issuing and holding equity or may be only governed by a contract.

Types Of Assistance Available To Entrepreneur From Different Agencies

- Industrial Sheds
- Subsidised Power Supply
- Registration With State Director Of Industries
- Financial Assistant
- Machinery On Instalments
- Availability Of Raw Material
- Marketing Assistances
- Miscellaneous Assistances

Various Institutions Providing Support To Small Entrepreneurs

- COMMERCIAL BANKS
- STATE FINANCIAL CORPORATIONS (SFCs)
- DISTRICT INDUSTRY CENTERS (DICs)
- SMALL INDUSTRIES SERVICES INSTITUTES (SISIs)
- INDUSTRIAL DEVELOPMENT BANK OF INDIA (IDBIs)
- INDUSTRIAL FINANCE CORPORATION OF INDIA (IFCI)
- SMALL INDUSTRIES DEVELOPMENT BANK OF INDIA (SIDBI)
- STATE INDUSTRIAL DEVELOPMENT CORPORATIONS (SIDCs)
- SMALL INDUSTRY DEVELOPMENT ORGANISATION (SIDO)
- SMALL SCALE INDUSTRIES BOARD (SSIB)
- NATIONAL RESEARCH DEVELOPMENT CORPORATION (NRDC)
- TECHNICAL CONSULTANCY ORGANISATIONS (TCOs)
- SMALL INDUSTRIES DEVELOPMENT CORPORATIONS (SIDCO)
- TECHNOLOGY BUSINESS INCUBATOR (TBI)
- NATIONAL SMALL INDUSTRIES CORPORATION LTD. (NSIC)
- SCIENCE AND TECHNOLOGY ENTREPRENEUR PARK (STEP)
- KHADI AND VILLAGE INDUSTRIES COMMISSION (KVIC)

CHAPTER 2

MARKET SURVEY AND OPPORTUNITY IDENTIFICATION

Scanning Of Business Environment

The six factors of PESTEL analysis are following:-

- Political Factor
- Economical Factor
- Socio-Cultural Factor
- Technological Factor
- Environment factor
- Legal Factor

Inputs Required for New Entrepreneur

- Behaviour Identification Techniques
- Identification Of Business Opportunity
- Project Report Preparation
- Financial aspects
- Accounts
- Sales Promotion, Marketing and Advertising
- Production, Planning and Control
- Different Aspects of Management
- Legal matters
- Sale Tax, Income Tax Etc
- Collection And Analysis of Information For Decision Making

Data Collection For Setting UP Small Ventures

- Raw Material Data
- Machinery and Equipment Data
- Market Data
- Financial Data
- Personnel Data
- General Data

Factor For Sales Forecasting

- Competition
- Changes In Technology
- Government Policies
- Factor Related To The Concern Itself

Methods Used For Forecasting The Demand

Following method are generally used for forecasting of sales :

- Customer's Views
- Salesmen's opinion
- Trend's Opinions

Consideration In Product Selection

- Present Market
- Scope Of Growth Of Market
- Costs
- Availability Of Main Production Factor
- Ricks

Chapter 3

PROJECT REPORT PREPARATION

What is a project report?

The project report is a document, which gives an account of the project proposal to ascertain the prospects of the proposed plan/activity. The project report contains detailed information about:

- Land & building required
- Manufacturing Capacity per annum
- Manufacturing Process
- Machinery & equipment along with their prices and specifications
- Requirements of raw materials
- Power & Water required.
- Manpower needs
- Marketing
- Cost of the project and production.
- Financial analyses & economic viability of the project.

Need Of Project Report

- The project report is like a road map. It describe the direction the enterprise is going in, what its goals are, where it want to be and how it is going to get there. It also enable the entrepreneur to know weather he is proceeding in right direction.
- It help the entrepreneur in getting provisional or permanent registration of the project from the DICs
- It help the allotment of industrial plot or shed for the project from state from state industrial development.
- It help in securing supply of scare raw material required for the production to be manufactured.
- It helps the entrepreneur in establishing techno-economic viability of the project

Contents of project report

- Objective And Scope OF Report
- Promoter's Profile
- Location
- Land And Building
- Plant And Machinery
- Production Process
- Other Utilities
- Raw Material
- Market Potential
- Personnel
- Financial Implication
- Sources of Finances
- Financial Viability Of The project
- Schedule Of Project Implementation

Project Appraisal

- The exercise of project appraisal simply means the assessment of a project in terms of economical, technical, social and financial viability. Simply speaking project appraisal means the assessment of a project. Hence project appraisal is a multi-dimensional analysis of the project i.e. a complete scanning of the project.

Stages Of Project Appraisal

- Economical Analysis
- Financial Analysis
 - I. Cost Analysis
 - II. Pricing
 - III. Financing
 - IV. Income and Expenditure
- Technical Feasibility
 - i. Process Technology
 - ii. Economic Size Of Project
 - iii. Technical know-how and Consultancy
- Managerial Competence
- Market/Commercial Analysis

Chapter 4

Introduction To Management

Management

- **Management (or managing) is the administration of an organization, whether it is a business, a not-for-profit organization, or government body.**
- Management includes the activities of setting the strategy of an organization and coordinating the efforts of its employees (or of volunteers) to accomplish its objectives through the application of available resources, such as financial, natural, technological, and human resources.
- The term "management" may also refer to those people who manage an organization.

Need Of Management

- Tough Competition in Market
- Production Efficiency
- Industrial Peace
- Limited Financial Resources
- Expansion Of Industries
- Complexity Of Industries

Characteristics Of Management

- Management Is A Purposeful Activity
- Management Of Social Purpose
- Management Is an Intangible Force
- Management Is An Integrating process
- Management Is An Universal Activity
- Management Is Getting Things Done
- Management Is Separate From Ownership
- Management Is Needed At All Level Organisation
- Management Is Goal-oriented
- Management Is A Process
- Management Is Both Science & Art

Functions Of Management

- Planning
- Organising
- Staffing
- Co-ordination
- Directing
- Motivating
- Controlling

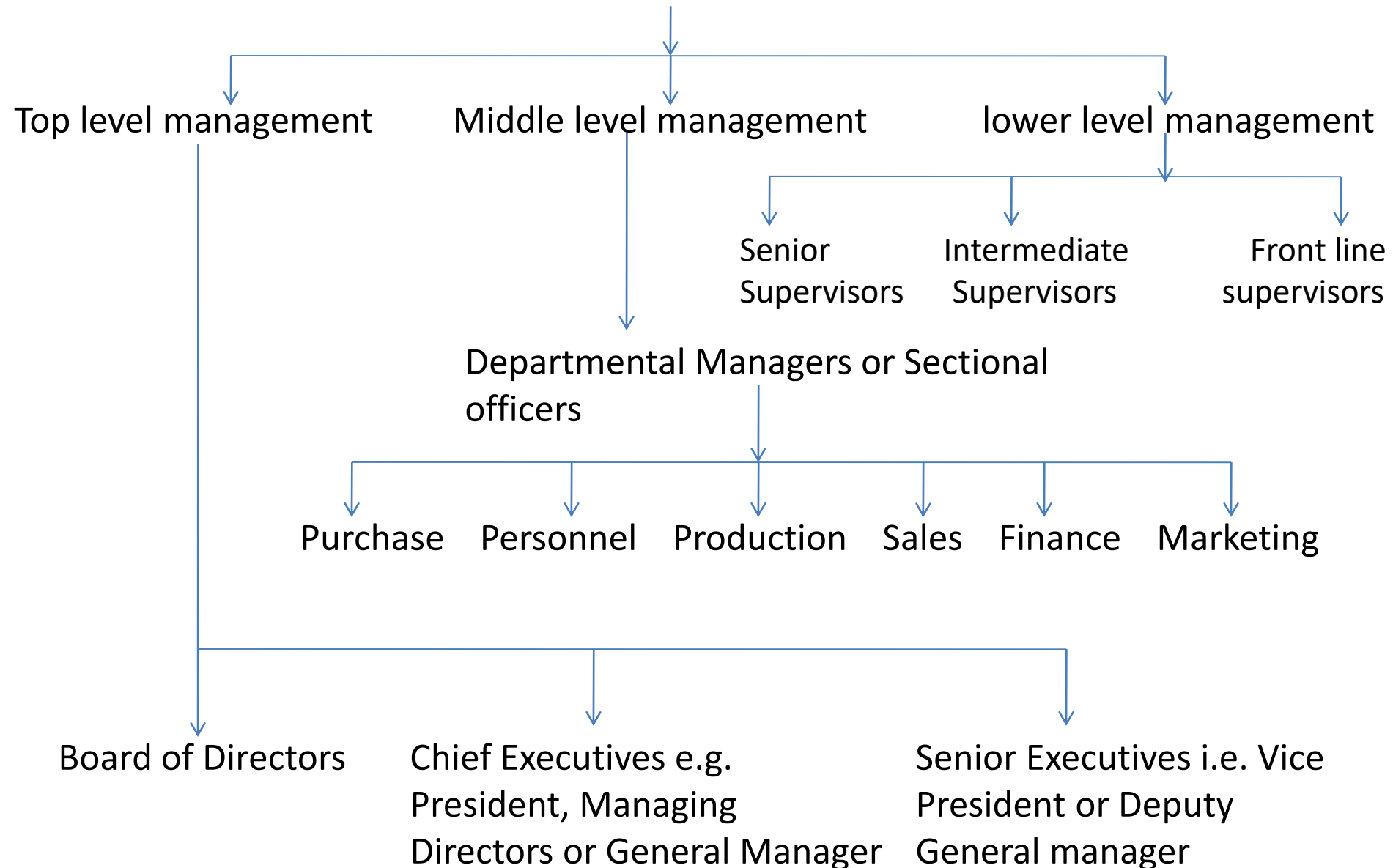
Principles Of Management

- Division To Work
- Authority & responsibility
- Discipline
- Unity Of Command
- Unity Of Direction
- Centralisation Of Authority
- Scalar Chain
- Remuneration
- Initiative
- Stability Of workers
- Equality
- Order
- Team Spirit

Hierarchical Management Structure

1. Top Level management
2. Middle Level management
3. Lower Level management

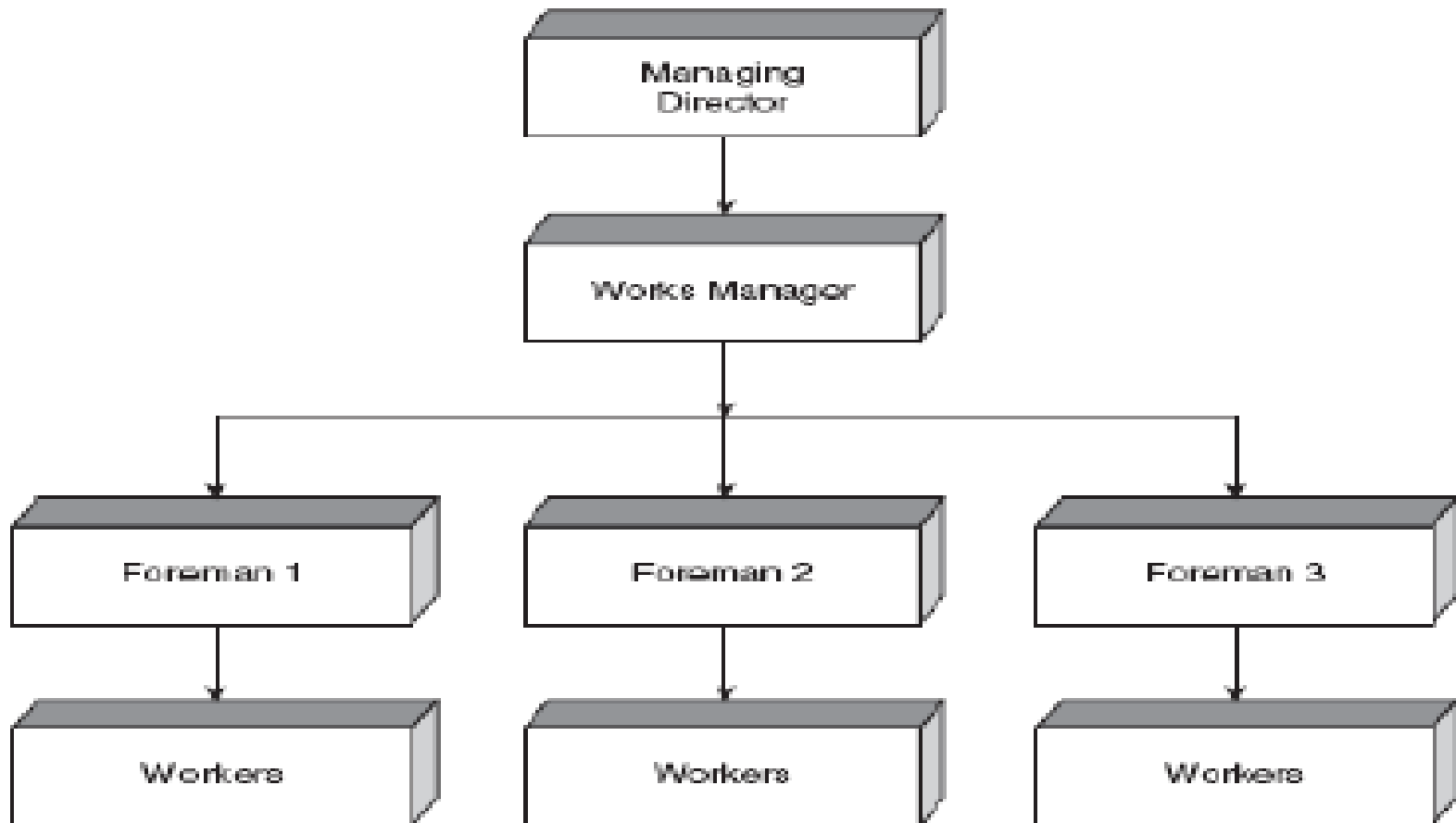
Hierarchical Management Structure



Types of Industrial Organisation

- Line Organisation
 - i. Pure Line Organisation
 - ii. Departmental Line Organisation
- Functional Organisation
- Line & Staff Organisation
 - i. The Personnel Staff
 - ii. The specialist Staff
 - iii. The General Staff

Line Organization: The basis of line organization is authority and responsibility. It depicts clear line of authority. The authority and responsibility are highest at the top and go on reducing successively with each level



Line Organization

Merits

Quick decision making

Strict discipline can be maintained.

Clear authority and responsibility

Scalar chain and unity of command are followed.

Demerits

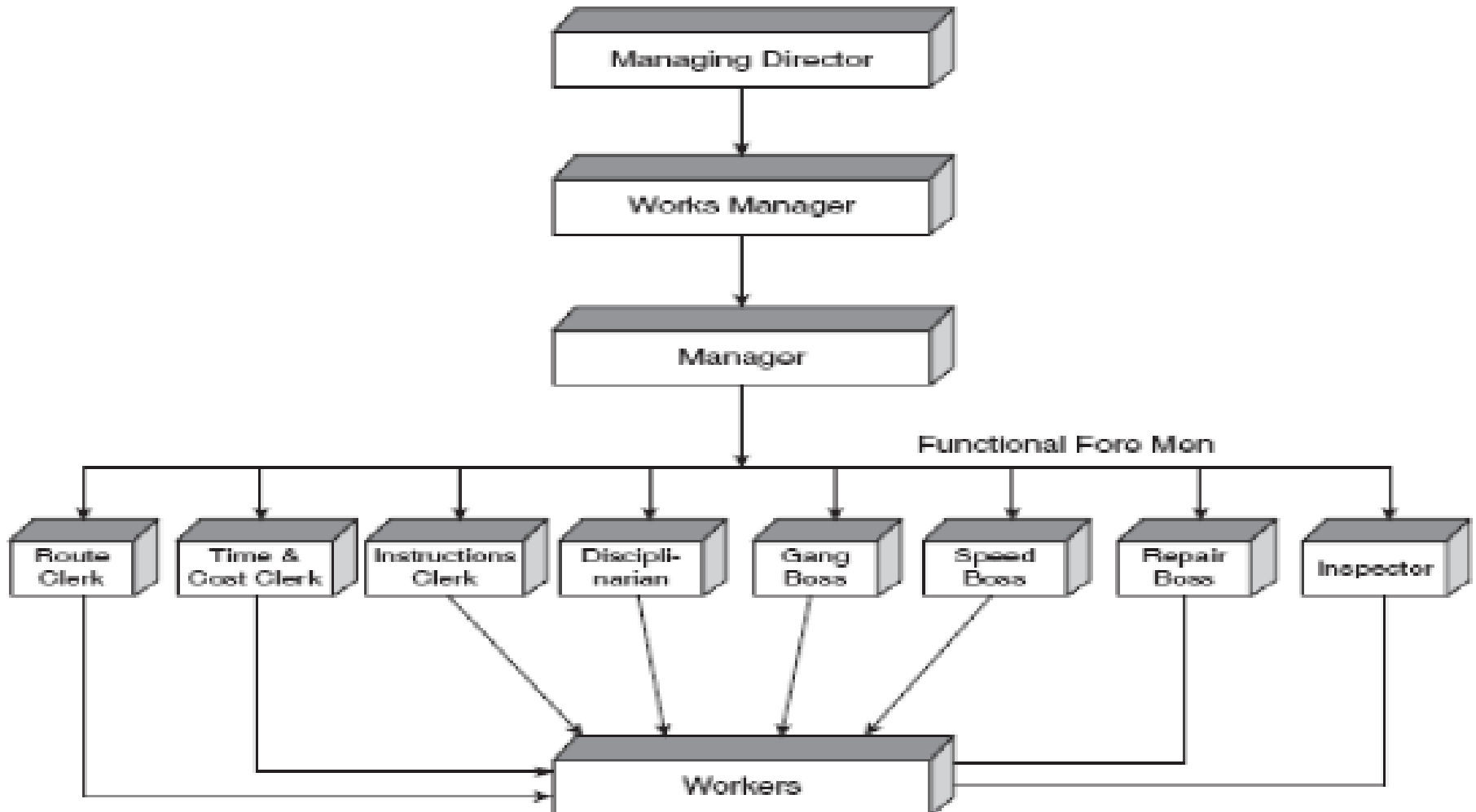
No scope for specialization

Key persons are overloaded with work.

Less efficiency due to lack of specialization

Taylor's Functional Organization

Functional organization is based on specialization. Taylor advocated foremen should possess specialization without which doing justice for the job would be impossible.



Functional Organization

Merits

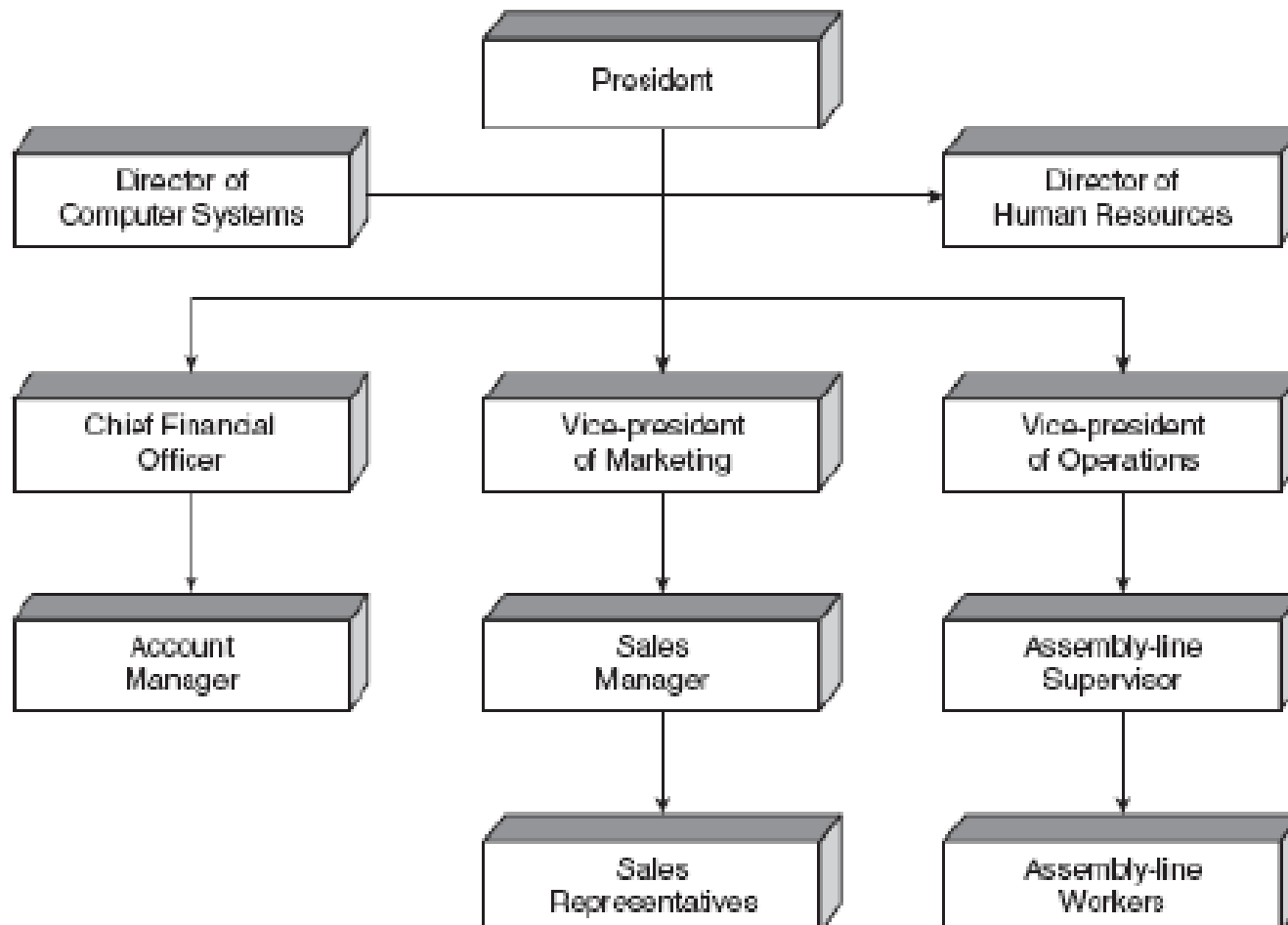
- Scope for high specialization.
- Tasks are handled by experts and quality of work and efficiency is high.
- Area of work is narrow and key persons are not overloaded.
- Better decisions are made.

Demerits

- Delay in decision making.
- Scalar chain and unity of command are not followed.
- Maintaining discipline is difficult.
- Coordination among foremen is difficult.

Line and Staff Organization

It is a combination of both line and functional organization and it provides the advantages of both.



Departmentation

The process of grouping of activities into units for the purpose of administration is called Departmentation. It can be defined "as the process by which activities or functions of enterprise are grouped homogeneously into different groups."

Types Of Departmentation

- Personnel Department
- Finance Department
- Marketing Department
- Production Department
- Purchase Department

Chapter 5

Leadership and Motivation

Leadership

Leadership is the process of influencing the activities of an individual or of a group for achievement of goal in given situation.

Two main types of leaders:

- Emergent
- Assigned

Qualities of Successful Leaders

- Intellectual Stimulation
- Energy
- Self-confidence
- Assertiveness
- Dominance
- Motivation
- Honesty and Integrity
- Charisma
- Initiative

FUNCTIONS OF A LEADER

- To define objective
- Prepare plan
- Introduce new methods
- Guide and coordinate
- Distribute work
- Optimum use of resources
- Shaping behavior

Leadership Types/Styles

Leadership styles are the pattern of behaviour which a leader adopts influencing the behaviour of his followers in the organizational matters.

There are three styles of leadership:

1. Autocratic leadership (Authoritarian or Directive)
2. Democratic leadership (Participative)
3. Laissez-faire (Free-rein)

Leader v/s Manager

S. No.	Basis	Leader	Manager
1	Scope	Leader has limited scope. He is only a part of management.	Manager plans, organizes, directs, controls and leads the business activities.
2	Authority	Leader exercises his influence through informal authority.	Manager directs the employees through formal authority.
3	Function	In unorganized group.	In organized group.
4	Importance	Leader is not essential.	Manager is necessary in every enterprise.
5	Dominance	All leaders are not managers.	All the managers are leaders, so they enjoy dominating position.

MOTIVATION

Motivation is defined as *“the extent to which persistent effort is directed toward a goal”*

- Motivation is one’s willingness to exert efforts towards the accomplishment of his/her goal.
- Motivation is the willingness to exert high levels of efforts toward organisational goals, conditioned by the effort ability to satisfy some individual need

IMPORTANCE OF MOTIVATION

Performance = Ability × Motivation

- i. High performance level
- ii. Acceptance of organizational changes
- iii. Low employee turnover and less absenteeism
- iv. Good industrial relations
- v. Less number of complaints and grievances

Types of motivation

1. Positive motivation or Negative motivation
2. Extrinsic motivation or Intrinsic motivation
3. Financial motivation or Non-financial motivation

Theories of Motivation

- Maslow's Need Hierarchy Theory
- Herzberg's Motivation Hygiene Theory
- McGregor's Participation Theory

Maslow's Need Hierarchy Theory

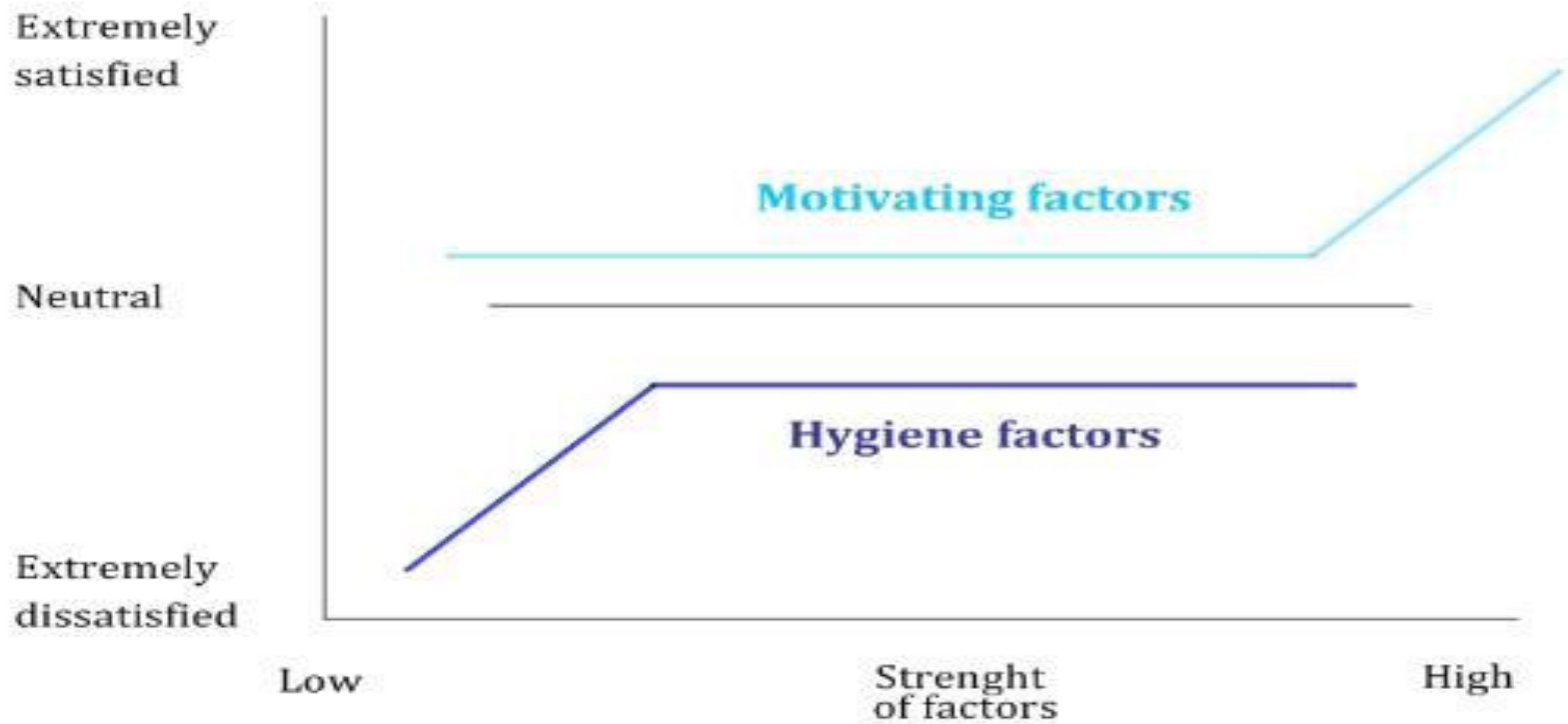
1. **Physiological** – these needs must be met in order for a person to survive, such as food, water and shelter.
2. **Safety** – including personal and financial security and health and wellbeing.
3. **Love/belonging** – the need for friendships, relationships and family.
4. **Esteem** – the need to feel confident and be respected by others.
5. **Self-actualisation** – the desire to achieve everything you possibly can and become the most that you can be.

Maslow's Need Hierarchy Theory



Herzberg's Motivation Hygiene Theory

- The psychologist Frederick Herzberg extended the work of Maslow and proposed a new motivation theory popularly known as Herzberg's Motivation Hygiene (Two-Factor) Theory. Herzberg conducted a widely reported motivational study on 200 accountants and engineers employed by firms in and around Western Pennsylvania.
- **He asked these people to describe two important incidents at their jobs:**
 - (1) When did you feel particularly good about your job, and
 - (2) When did you feel exceptionally bad about your job?He used the critical incident method of obtaining data.



Dissatisfaction - Low level	Hygiene factors
No dissatisfaction - High level	
No satisfaction - Low level	Motivating factors
Satisfaction - High level	

Hygiene: Job Dissatisfaction

Motivators: Job Satisfaction

Achievement

Recognition

Work itself

Responsibility

Advancement

Growth

Company Policy and Administration

Supervision

Interpersonal Relations

Working Conditions

Salary*

Status

Security

However, Herzberg's model is labelled with the following criticism also:

1. People generally tend to take credit themselves when things go well. They blame failure on the external environment.
2. The theory basically explains job satisfaction, not motivation.
3. Even job satisfaction is not measured on an overall basis. It is not unlikely that a person may dislike part of his/ her job, still thinks the job acceptable.
4. This theory neglects situational variable to motivate an individual.

McGregor's Participation Theory

- Douglas McGregor formulated two distinct views of human being based on participation of workers. The first basically negative, labelled Theory X, and the other basically positive, labelled Theory Y.

Theory X is based on the following assumptions:

1. People are by nature indolent. That is, they like to work as little as possible.
2. People lack ambition, dislike responsibility, and prefer to be directed by others.
3. People are inherently self-centered and indifferent to organisational needs and goals.
4. People are generally gullible and not very sharp and bright.

On the contrary, Theory Y assumes that:

1. People are not by nature passive or resistant to organisational goals.
2. They want to assume responsibility.
3. They want their organisation to succeed.
4. People are capable of directing their own behaviour.
5. They have need for achievement.

Chapter 6

Management Scope In Different Area

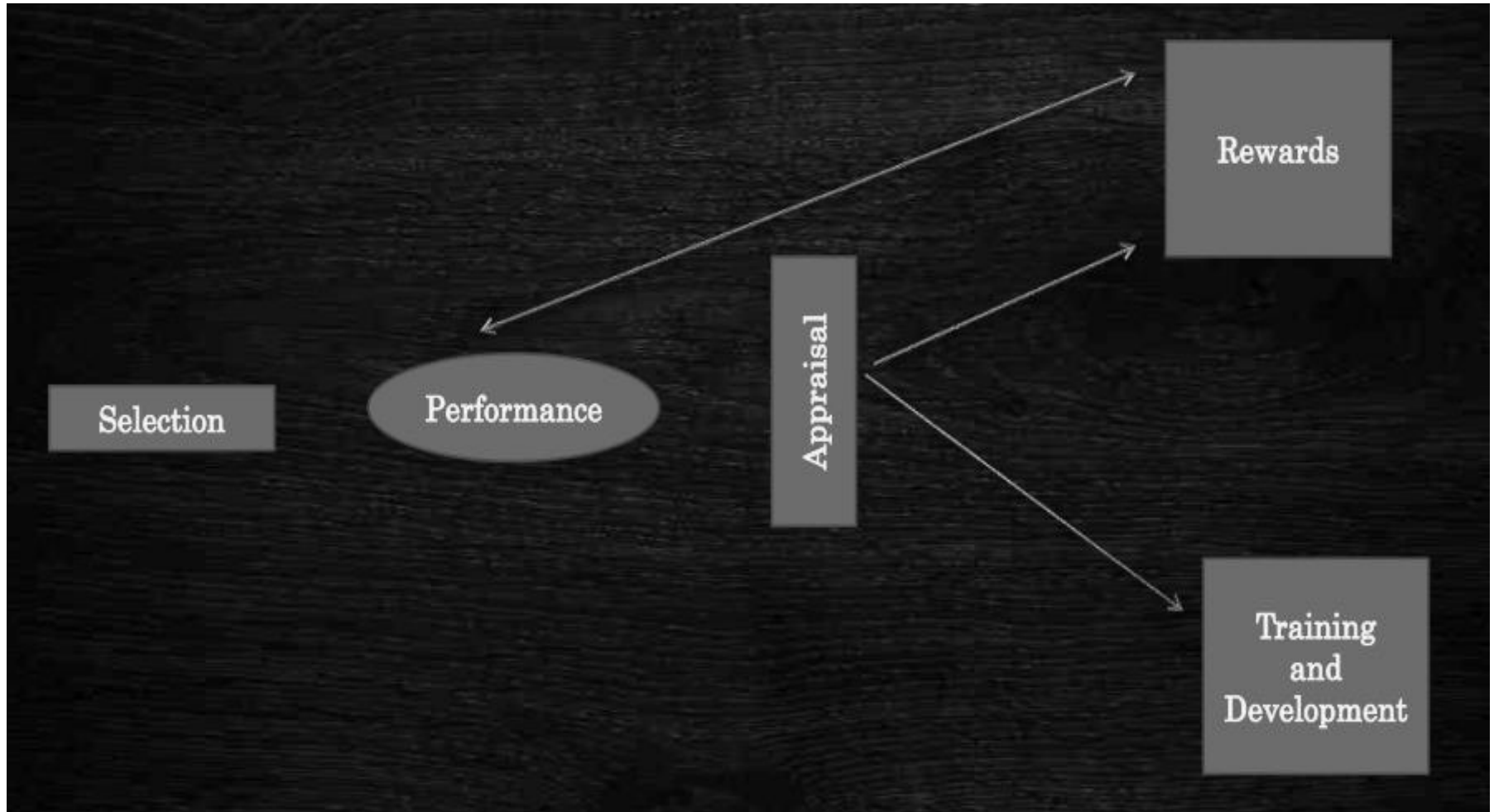
Human Resource Development (H.R.D.)

- H.R.D. is the part of human resource management that specially deals with training and development of the employees in the organisation.
- Prof. Len Nadler in 1969 developed the concept of H.R.D..
- L & T Ltd. Was the first to start concept of H.R.D. in India.

Implementation of H.R.D. Concept

- Performance appraisal
- Feedback
- Career planning
- Training
- Organisational development
- Quality of work

Human Resource Cycle..



Manpower Planning

- Manpower planning means deciding the number and types of human resources required for job unit. It is the process of determining manpower requirement.
- Manpower planning is also known as human resources planning.

Steps In Manpower Planning

- Goals and plans of organisation.
- Current human resource situation.
- Human resource forecast.
- Implementation of programmes.
- Audit and adjustment.

Recruitment

- Recruitment is a process to discover the sources of manpower to meet the requirements of the staffing schedule and to employ effective measures for attracting the sufficient number of manpower to facilitate effective selection of an efficient working force.

Sources of Recruitment

1. Internal Sources,
2. External sources.

1. Internal source:
 - i. Present permanent employees
 - ii. Retired employees
 - iii. Dependent of employees
 - iv. Casual employees

2. External sources:

- i. Educational and training institutes
- ii. Private employment agencies
- iii. Public employment exchanges
- iv. Professional organisations
- v. Data banks

Performance Appraisal

- Performance appraisal is a method by which the job performance of an employee is evaluated generally in terms of quality, quantity, cost and time.
- The objective of performance appraisal is to determine the present state of efficiency of a employee in order to establish the actual need of training.

Performance Appraisal Methods

- Unstructured appraisal method.
- Forced distributed method.
- Ranking method.
- Check list appraisal method.
- Critical incident method.

Material Management

- Material management is related with the control of material in such a manner which ensures maximum return on the working capital of the enterprise.
- Sales forecasting and planning are the basic inputs for material planning.
- The basic aim of material management is to provide material with minimum total cost.

Functions Of Material Management

- Material planning
- Material purchasing:
 - i. at right price
 - ii. in right quantity
 - iii. of right quality
 - iv. at right time
 - v. from right suppliers
- Stores management
- Inventory control

Inventory Control

- Inventory control consists of a list of goods and materials available in stock.
- Inventory control keeps track of inventories.
- The balance between 'too much' and 'too little' can be maintained by effective inventory control.

'Too much' leads to charges in the form of taxes, insurance, storage and blocking of funds.

'Too little' leads to loss of production quantity , discount and higher transportation charges.

Methods of Inventory Management

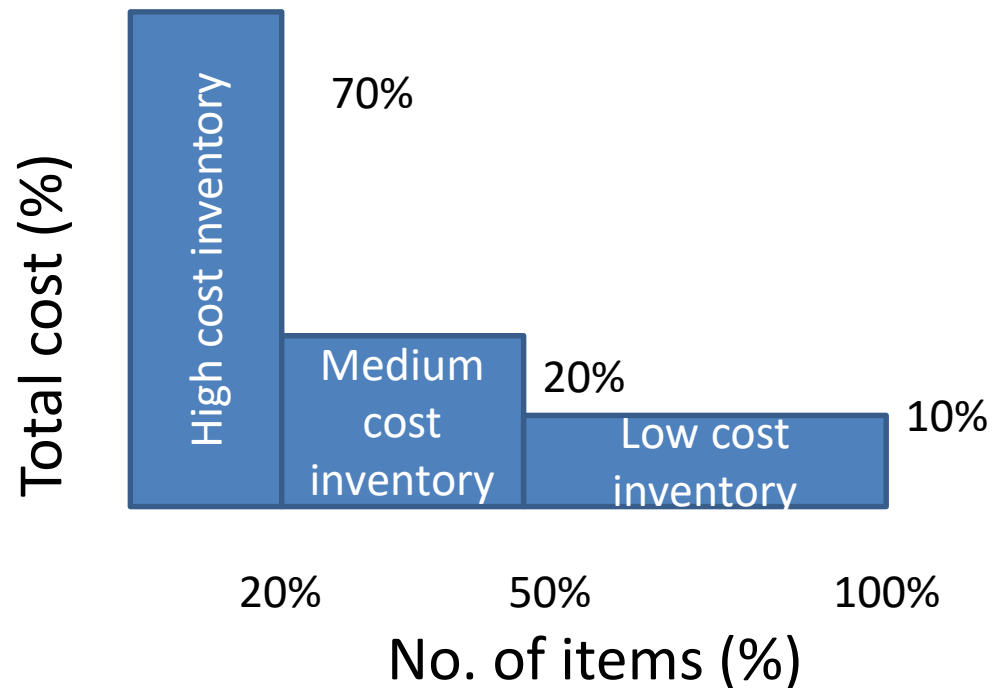
1. Selective inventory control: A.B.C. analysis
2. Economic ordering quantity: (EOQ) model

Selective Inventory control: A.B.C. Analysis

- ABC full name is 'Always Better Control'. It is based on the logic that in any large number, we usually have 'significant few' and 'insignificant many'.
- E.g. the items with highest values as 'A items', relatively low value as 'B items', and the items least valuable are classified as 'C items'.

Selective Inventory control: A.B.C. Analysis

Group	No. of items	Inventory value
A	20	70
B	30	20
C	50	10
Total	100	100



Economic Ordering Quantity (EOQ) Model

EOQ model is based on the following assumptions:

- I. The firm knows with certainty how much items of particular inventories will be used within a specified period of time.
- II. The use of inventories remains constant or unchanged throughout the period.
- III. The moment inventories reach to zero level, the order is placed to replenish inventory and stocks are received.

Determination of EOQ

1. Ordering costs
2. Carrying costs

Formula for E.O.Q.

$$\text{E.O.Q.} = \sqrt{\frac{2AS}{C}}$$

Here A = Quantity purchased in a year

S = Cost of placing an order

c = Annual carrying cost per unit

Marketing

- **Market** is a place where the sellers and buyers assemble to exchange their products for money and vice versa.
- **Marketing** is the process of discovering and translating consumer needs and wants into products and services and then in turn expand their demands.
- **Marketing management** is the process of ascertaining consumer needs and wants and converting them into products and service sand then moving these products and services to final consumers to satisfy their needs and wants.

Importance of Marketing

- Raising the living standard of the people
- Development of economy of the country
- Good link between production and consumption
- Expanding home markets
- Ensures more security to industries
- Finding out right type of production for an industry
- Bridges the gap between producers and consumers
- It brings products of new quality and variety

Functions of Marketing

1. Buying raw materials:
 - i) By inspection
 - ii) by sample
 - iii) by description
2. Selling
3. Marketing research
4. Pricing
5. Transportation
6. Packaging
7. Advertising and sales promotion
8. Financing

Advertising

Advertising is the process through which message about a product is passed on to people in general or the prospective buyers in particular.

- i. Indoor advertisement
- ii. Outdoor advertisement
- iii. Direct advertisement
- iv. Display advertisement

Sales Promotion

Sales promotion is one of the important tools used to widen the customers network. In this technique, various incentives are offered to the customers for purchasing products.

- To create new customers
- To retain existing customers
- To encourage bulk purchases
- To build brand loyalty
- To survive in market competition

Sales Promotion Technique

- Sampling
- Coupons
- Price packs
- Discount
- Free gifts
- Free trials
- Cash refund vouchers

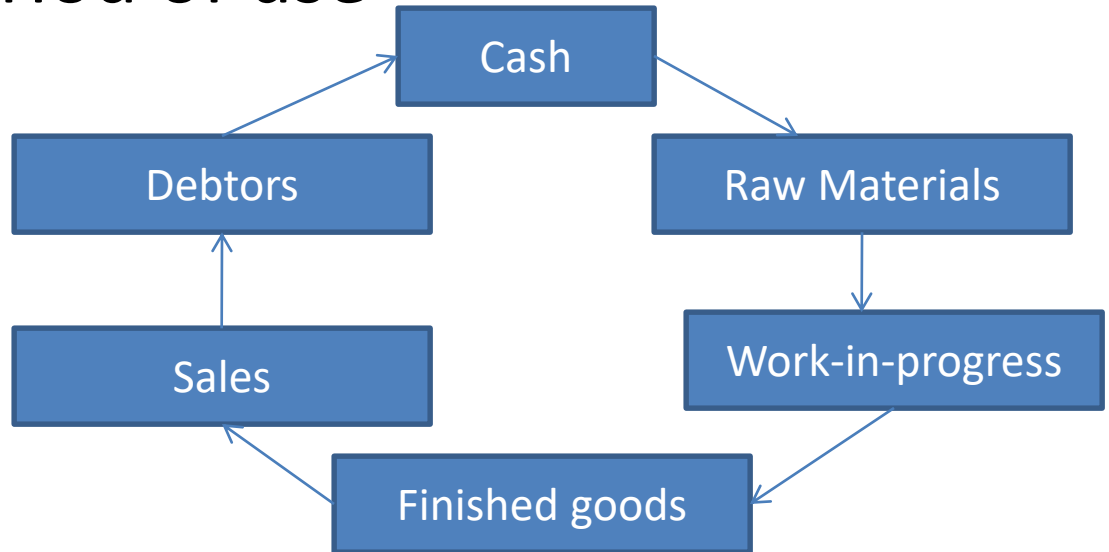
Financial Planning

The decisions taken by the entrepreneur well in advance regarding the future financial aspects of the enterprise is called financial planning.

- i. How much money is needed?
- ii. When is the money needed?
- iii. Where will money come from?

Types of Capital

- On the basis of extent of permanence
 - a) Fixed capital
 - b) working capital
- On the basis of period of use
 - a) Long term capital
 - b) Short term capital



Operating Cycle

Function Of Financial Management

- Determining financial needs
- Arranging funds
- Investment of funds
- Financial analysis
- Profit planning and control
- Maintaining liquidity
- Implementing financial control

Taxation

- A tax is a compulsory contribution levied on the wealth of an individual, institution or corporation by the government of a country.
- Principle of taxation:
 - i) Equal
 - ii) Certain
 - iii) Timely
 - iv) Economical

Types of Taxes

- Direct tax: Direct tax is borne by the persons on whom it is intended to be levied by the taxing authority. E.g. income tax, corporate tax and capital gain taxes etc..
- Indirect tax: Indirect tax is one, the burden of which is passed on by the person on whom it is imposed, to other persons. E.g. sales tax, excise duty and customs duty etc..

- Income tax: The direct tax which is paid by individuals on the annual income to the govt. of India is known as income tax.
- Sales tax: Sales tax is levied at the time when sale or purchase of goods takes place. It is an indirect tax the burden of which is passed on consumers.
- Excise duty: Excise duty is the tax levied necessarily on those dutiable goods which are produced or manufactured in India.

- Custom duty: Custom duty is a duty or tax which is levied by govt. on the import of goods into India and export of goods from India.
- Value added tax (VAT): “value added” means the difference between sale price and purchase price. It is a multi point tax, which levied at each stage in the chain of production and distribution from raw material to final sale, based on the value added at each stage.

Chapter 7

Miscellaneous Topics

Customer Relationship Management (CRM)

CRM (Customer Relationship Management) are the concepts used by organizations to manage their relationships with customers.

This includes

- Capturing Leads
- Storage and analysis of the customers, vendors and partners
- Internal information (organizational)

CRM Types

CRM has 3 aspects

- Operational
- Collaborative
- Analytical

Operational Aspect

- Operational aspect of CRM is automation to Customer's processes including front office sales / service and marketing representative.
- Any customer interaction is recorded by CRM, so that any one can retrieve the customer information at anytime without having to interfere about interaction history

Collaborative Aspect

- Direct interaction with customers without interference of sales representative. Cost reduction and better customer services through automated voice response, email feedbacks, SMS, IVR etc.

Analytical Aspect

- Analysis of Customer Data for purposes like optimizing marketing effectiveness, customer retention, behavioral analysis, decision making

Key Features of CRM

A Typical CRM consists of 3 Sub Modules:
Marketing, Sales And Services

Communication Channel / CRM Module	Direct	Internet	Call Center
Marketing	Online Marketing	Web Marketing	Tele Marketing
Sales	Web Shop	Tele Sales	
Service	Online Service	Customer Self Service Portal	Tele Service

Advantages of CRM

- While company is quickly growing, customers are more satisfied as well
- Service provided in a better way, and a quicker way
- Sales force automated
- Integrated customer information
- Certain processes eliminated
- Operation cost cut, and time efficient
- Brand names more quickly established
- A central database so that everyone in your company can keep track of customer contacts
- Sales and marketing teams can benefit from having all this inside knowledge about customers
- Lets you set up rules for distributing work throughout your company
- Lets you pick and choose the functionality that you want

Disadvantages of CRM

- Organizational wise change of priority to customers.
- Significant investment of time and money
- Threatens management's control/power struggle
- Heightens people's resistance to change
- Inappropriate integration leads to disaster

Total Quality Management

- Total Quality Management (TQ, QM or TQM) and Six Sigma (6σ) are sweeping “culture change” efforts to position a company for greater customer satisfaction, profitability and competitiveness.
- TQ may be defined as managing the entire organization so that it excels on all dimensions of products and services that are important to the customer.
- We often think of features when we think of the quality of a product or service; TQ is about conformance quality, not features.

Total Quality Is...

- Meeting Our Customer's Requirements
- Doing Things Right the First Time; Freedom from Failure (Defects)
- Consistency (Reduction in Variation)
- Continuous Improvement
- Quality in Everything We Do

A Quality Management System Is...

- A belief in the employee's ability to solve problems
- A belief that people doing the work are best able to improve it
- A belief that everyone is responsible for quality

Elements of TQM

For TQM to be successful, the organization must concentrate on the following key elements:

Integrity

Ethics

Trust

Training

Teamwork

Communication

Recognition

Leadership



Implementation of TQM

Recognition (Motivation) The key elements of TQM can be divided into four groups according to their function:

Foundation: Integrity, Ethics, Trust

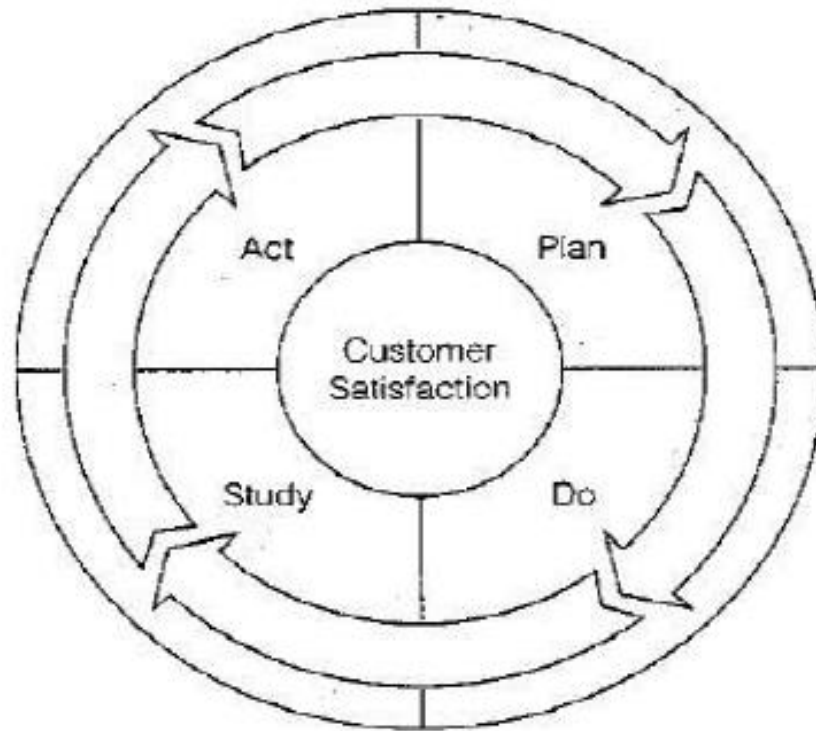
Building Bricks: Leadership, Team work, Training

Binding Mortar: Communication



Implementation of TQM

The Deming cycle: Originally developed by Walter Shewart, but renamed in 1950s because Deming promoted it extensively.



Implementation of TQM

- Plan – Study the current system; identifying problems; testing theories of causes; and developing solutions.
- Do – Plan is implemented on a trial basis. Data collected and documented.
- Study – Determine whether the trial plan is working correctly by evaluating the results.
- Act – Improvements are standardized and final plan is implemented.
- Variation of PDCA cycle: *FADE – Focus, Analyze, Develop, Execute cycle!*

Definition of JIT (JUST IN TIME)

- A set of techniques to increase, productivity, improve quality, and reduce cost of an operations
- A management philosophy to promote elimination of waste and continuous improvement of productivity

Developments of JIT and Lean Operations

- 1960's: Developed as Toyota Production System by Taiichi Ohno and his colleagues
- 1970's: U.S. and European auto makers began to apply JIT to improve quality and productivity
- 1990's and beyond: Expanded the JIT concept to streamline all types of operations

Main Elements of JIT

- Elimination of waste
- Quality at the source
- Balanced and flexible work flow
- Respect for people
- Continuous improvement (Kaizen)
- Simplification and visual control
- Focus on customer needs
- Partnerships with key suppliers

JIT Implementation

- Top management commitment
- Steering committee
- Education program
- Pilot project planning
- Employee training
- Pilot implementation
- Pilot post mortem
- Feedback to steering committee
- Expansion to next project

Definition of Intellectual Property

“Intellectual Property shall include the rights relating to

- literary, artistic and scientific works,
- performances of performing artists, phonograms, and broadcasts,
- inventions in all fields of human endeavour
- scientific discoveries
- Industrial designs
- trademarks, service marks and commercial names and designations
- protection against unfair competition

and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.”

Kinds of Property

- Movable Property
Car, Pen, Furniture, Dress
- Immovable Property
Land, Building
- Intellectual Property
Literary works, inventions

Nature of Intellectual Property

- Creation of human mind (Intellect)
- Intangible property
- Exclusive rights given by statutes
- Attended with limitations and exceptions
- Time-bound
- Territorial

Major Intellectual Properties

Copyright and Related Rights

Industrial Property

- Patents
- Industrial Designs
- Trade Marks
- Geographical Indications
- Layout Designs/Topographies Integrated Circuits
- Trade Secrets
- Protection of New Plant Varieties

Patent

- A patent is a grant made by the government to an inventor that excludes others from manufacturing, using or selling the invention for a specific period of time and in a specific geographical area.

Copy Right

- Copy right is a form of protection to the authors of original works of authorship including literary, dramatic, musical, artistic and other certain intellectual works, both published and unpublished.
- Infringement of copy right: is the commercial exploitation of the work in any form by a person without authority.
- Remedies against infringement:
 - i. Civil remedies
 - ii. Criminal remedies
 - iii. Administrative remedies

Trademark

- Trademark is any word, slogan, design, picture or other symbol used to identify or distinguish a specific product from others of the same nature offered in the market.
- Function of trademark:
 - i. Identifies the product and its origin.
 - ii. ensures the guarantee of its quality.
 - iii. Advertises the product.
 - iv. Creates an image of the product in the minds of the public/consumers of such goods.

Thank you