



DEPARTMENT OF CIVIL ENGINEERING BUET, DHAKA

Course No : CE 401 (4.0 Credits)

Course Title

**Project Planning and Construction
Management**



Course Teachers

Professor Dr. Md. Mazharul Hoque

Professor Dr. Md. Mizanur Rahman

Dr. Md. Raquibul Hossain

CE401 COURSE OUTLINES

Principles and Concepts of Management: Introduction (Prof. M. M. Hoque)

1. Introduction: Principles and Concepts of Management, Management in Civil Engineering, Construction Management, Project Planning and Evaluation
2. Definitions: Organization, Management, Managing, Administration vs Management, Decision-Making
3. The Management Process; Management as a Meta Process; Framework for Planning
4. Different Approaches to Management and Development of Management Theories
5. Elements, Principles and Benefits of Organization; Creation of Jobs and Departmentation
6. Delegation and Authority Relationships; Organization Structures



CE401 COURSE OUTLINES

Psychology in Administration-Human Factors in Management: Introduction (Prof. M. M. Hoque)

7. Framework for Motivation: Concepts; Approaches and Theories; Concepts and Importance of Morale
8. Understanding Human Needs: Classification of Needs and Need Satisfaction
9. The Process of Leading, Directing and Guiding; Leadership Functions and Attitudes
10. Influencing, Disciplining, Rewarding and Compensating.
11. Controlling Conflicts: Aspects of Conflict
12. Manning Organization: Job-Man Match Methodology, Manpower Planning, Procurement and Development
13. Introduction to Labour Relations and Collection Bargaining; Unionism



CE401 COURSE OUTLINES

Project Preparation, Evaluation & Equipment Replacement Studies (Prof. M. M. Hoque)

14. Project Planning and Evaluation: Project Preparation; Aspects of Project Preparation
15. Feasibility Studies and Reports
16. Cash Flows-General Concepts, Time Value of Money, Techniques of Discounting
17. Cash Flows-Payback Period, Net Present Value (NPV), Internal Rate of Return (IRR), Benefit Cost (B/C) ratio
18. Case Studies of Project Evaluation
19. Equipment Replacement Studies
20. Course Review: Concluding Remarks



CE401 COURSE OUTLINES

Construction Management and Project Management Concepts and Practices (Prof. Md. Mizanur Rahman)

21. Construction Management: Principles, Objectives and Functions of Construction Management
22. Project Management Concepts; Project Organization, Methods and Practices
23. Construction Technology
24. Construction Supervision: Site Management; Problems in Project Implementation
25. Construction Economy: Construction Costs ; Methods of Reducing Construction Costs
26. Management of Materials and Equipment



CE401 COURSE OUTLINES

Construction Management Techniques and Tools

(Prof. Md. Mizanur Rahman)

27. Construction Contracts and Specifications; Contractual Documents
28. Mechanics of Bidding and Prequalification.
29. Construction Inspection and Quality Control; Construction Safety
30. Linear Programming (LP); Definition and Formulation and Applications
31. Solution of LP: The Simplex Method (graphical and algebraic)
32. Construction Planning and Scheduling
33. PERT, CPM, Case Studies, Resource Scheduling; PERT as a Cost Accounting System



CE401 COURSE OUTLINES

Human Resource, Inventory Control, Legal & Environmental Aspects of Project Management

(Dr. Md. Raquibul Hossain)

33. Human Resource Management; Conflict Management

34. Demand Forecasting

35. Inventory Control

36. Procurement and Stores Management

37. Legal Issues in Construction

38. Environmental Regulations



CE401 COURSE OUTLINES

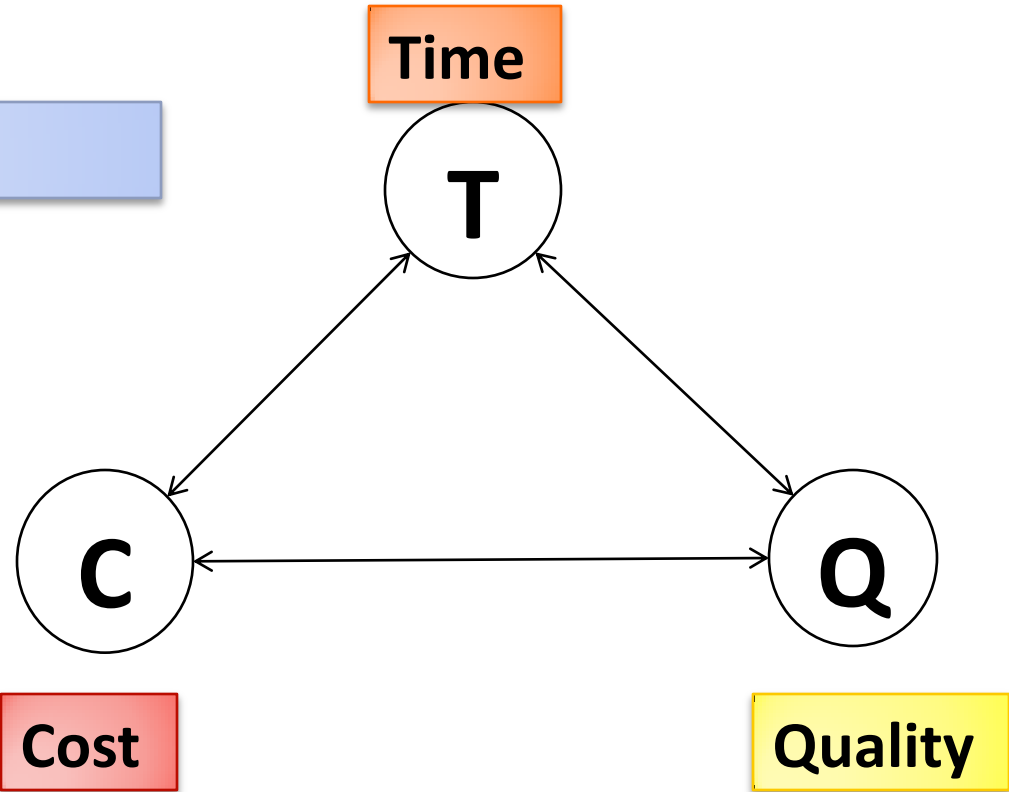
References:

1. The Process of Management --William H. Newman
2. Introduction to Operations Research- Hillier & Liberman
3. Project Management Techniques - A.O. Awani
4. Construction Planning, Equipment and Methods - Peurifoy
5. Materials Management & Inventory Control - A.K. Datta
6. Project Management - S. Chowdhury
7. Construction Planning & Management - Gahloj & Dhir 1992
8. Practical Project Management – Ghattas and McKee
9. Other Publications of Most Relevance
 - ❖ASCE Management Journals
 - ❖Books on Economic Analysis, Cost-Benefit analysis etc.

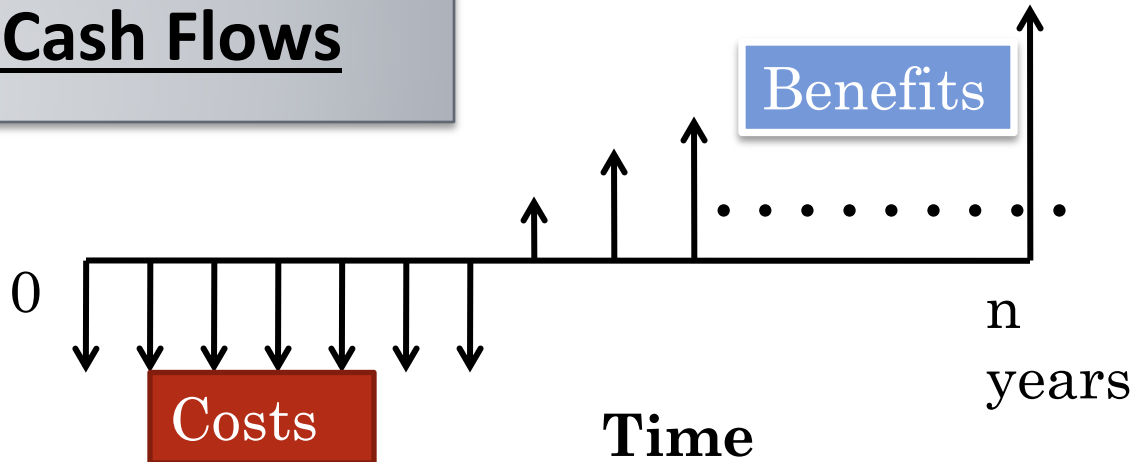


CE401 COURSE OUTLINES

Fundamentally, Our Concern



Project Cash Flows



THE IMPORTANCE OF CIVIL ENGINEERING LEADERSHIP IN THE GOVERNMENT SECTOR



THE IMPORTANCE OF CIVIL ENGINEERING LEADERSHIP IN THE GOVERNMENT SECTOR



- If civil engineers are to regain their leadership roles as directors of public works, educational changes are necessary.
- In the future, engineers must develop management skills and managers must be skilled in technical areas to serve society adequately

Engineering Ethics and Public Trust

- ✓ The public's main interests in public works concern the prudent expenditure of their funds for the provision of high-quality infrastructure facilities.
- ✓ Civil engineers are product-oriented, and tend to minimize administrative and organizational tinkering that wastes funds on unproductive activities.
- ✓ Thus, their interests closely match those of the public, which deserves competent, efficient leadership by dedicated career-oriented professionals trained to handle critical public works responsibilities.
- ✓ Because civil engineers have specialized training and are frequently in a position to know the most about government projects, they have the potential to provide the strongest leadership for those projects.
- ✓ Civil engineers are trained to make rational decisions, so their appointment to leadership posts in government results in more realistic practical solutions to problems and gives them some influence on how funds are distributed and disbursed.

Management in Civil Engineering

An update of the Results of the 1995 “Civil Engineering. Education Conference” (Journal of Management in Engineering. Dec.1996)

Consensus !

“Civil Engineering Students need More Management Education”
Identified Four Attributes to Foster

Technical Competence

- “an engineer is hired for his or her Technical skills, fired for Poor skills and promoted for Leadership & Management skills”

Communication skills

- Written as well as oral expressions; Negotiations, Decision making, Contract and Legal issues.

Management in Civil Engineering

Management Concepts

- **Business Management:** Leadership, Resource allocation, Financial etc
- **Project Management:** Planning, Design, Construction Maintainec phases, Tools and Tecniqes, Human Needs and Behaviour etc.

Team Work

- **People and social skills, Social behaviour**
- **Training, quality issues, conflict resolution, team building**

Management in Civil Engineering

EMERGING ROLE OF MANAGEMENT IN CIVIL ENGINEERING

Large projects undertaken by large civil engineering firms and large public enterprises require project managers who have considerable managerial skills as well as technical expertise.

The project manager in a large firm is often called upon to make client presentations, write proposals, negotiate contracts and changes, hire staff, and select sub consultants.

This requires civil engineers who serve as project Managers to have excellent communication skills, training in financial management, human resources, and contract law, as well as other managerial skills.

Management in Civil Engineering

Making decisions is in many respects is the essence of management:

The typical management questions that underline decision include:

- **What is the problem?**
- **What are the key facts?**
- **Who should be involved in the decision?**
- **What are the alternatives?**
- **What do they cost? What are their impacts?**
- **Which course of action best serves these objectives?**
- **What does the decision imply for the future?**
- **What are the procedures for making it work?**
- **How are the results to be tested?**
- **What arrangements are there for modification or change?**
- **Can the decision maker live with the result?**



Principles and Concepts of Management

ORGANISATION: an organization (business, social, government, religious etc) is a collection of people with a common goal.

The basic function of organization is to transform certain available inputs (manpower, money, materials, facilities, energy, information etc) into some form of desirable outputs (products and / or services) within a given environment (social, political, legal, geographic etc) through the utilization of existing technology (software and hardware).

Input → Transformation → Output

Principles and Concepts of Management

Management provides the mechanism for achieving this transformation through a process of “rational” decision making.

Management is a key factor in today’s highly organized society.

Managing is the task of achieving desired results through an organization.

Managers create the environment that is conducive to the performance of activities that will accomplish the organizational goals.

Principles and Concepts of Management

Administration and Management

Administration

- *Administration is housekeeping*
Basically concerned with the implementation of objectives, Plans and internal efficiency

Administration

- Static
- Protective
- Bureaucratic
- Follows
- Rules

Management

- Management is housekeeping plus entrepreneurship-which involves decision making, innovation and risk-taking and relatively dynamic leadership

Management

- Dynamic
- Creative
- Democratic
- Leads
- Goals

Vs

Principles and Concepts of Management

Decision – Making and Management

Human Work Classification

- i) **Decision Making (DM)**
- ii) **Operative Work (OW)**

Total working time of an individual

= Time spent on DM + Time spent on OW

A manager can be defined as some one in an organization who spends certain amount of “Working” time in decision making involving other people in the organization

- Decision making is one of the most important functions of a manager.
- The distribution of DM/OW time varies with the level of management ($0 \leq DM/OW \leq \infty$)

Principles and Concepts of Management

Management Classifications

Man/Machine aspect

- Production mgt, Manufacturing mgt, Construction mgt etc

Man/Material aspect

- Inventory mgt, Quality mgt, Material handling mgt. etc

Man/Man aspect

Personnel mgt, Human resources mgt, Labour mgt etc

Business aspect

- Sales mgt, Distribution mgt, Financial mgt, Marketing mgt.



Principles and Concepts of Management

Management as Art, Science, Technology

Because of the involvement of human element, the solution of management problems are unique requiring the application

Creativity

Analysis

Synthesis

Judgment

Principles and Concepts of Management

- ❖ *A Manager is a technologist, Managing is the art of doing and Management is the science which underlines the art.*
- ❖ *Art is the power of performing certain actions, especially as acquired by experience, study or observation*
- ❖ *Science is something that may be studied or learned like systematized knowledge.*
- ❖ *Technology is the application of knowledge to practical purposes.*
- ❖ *Engineering Management: Engineering management takes over where engineering design terminates.*

Principles and Concepts of Management

Management : General Issues

*Management in practice, comprises application of a few well tried principles, some psychology, normal courtesy for other human beings and **a lot of common sense.***

Some see the manager's job in three phases

Planning?

Organizing?

Controlling?

Principles and Concepts of Management

Management : General Issues(cont...)

Some see the job in five phases:

Planning

Organizing

Staffing

Directing

Controlling

With the manager motivating or co-ordinating in each of these five phases

Thus, Management can be defined as “Co-ordination of resources through a Process of Planning, Organizing, Directing, Motivating and Controlling in order to attain stated objectives”.

Principles and Concepts of Management

Elements of the Management Process

Planning

- Deciding in advance what, when, how, who and by whom is to be done.
- **Activities:** Forecasting, Setting Objectives, Scheduling, Budgeting, Policy Making

Organizing

- Formulating a Powerful System
- **Activities:** Structuring, Integrating, Developing personnel

Activating

- Managing and Running an Organization
- **Activities:** Assigning, Communicating, Coordinating

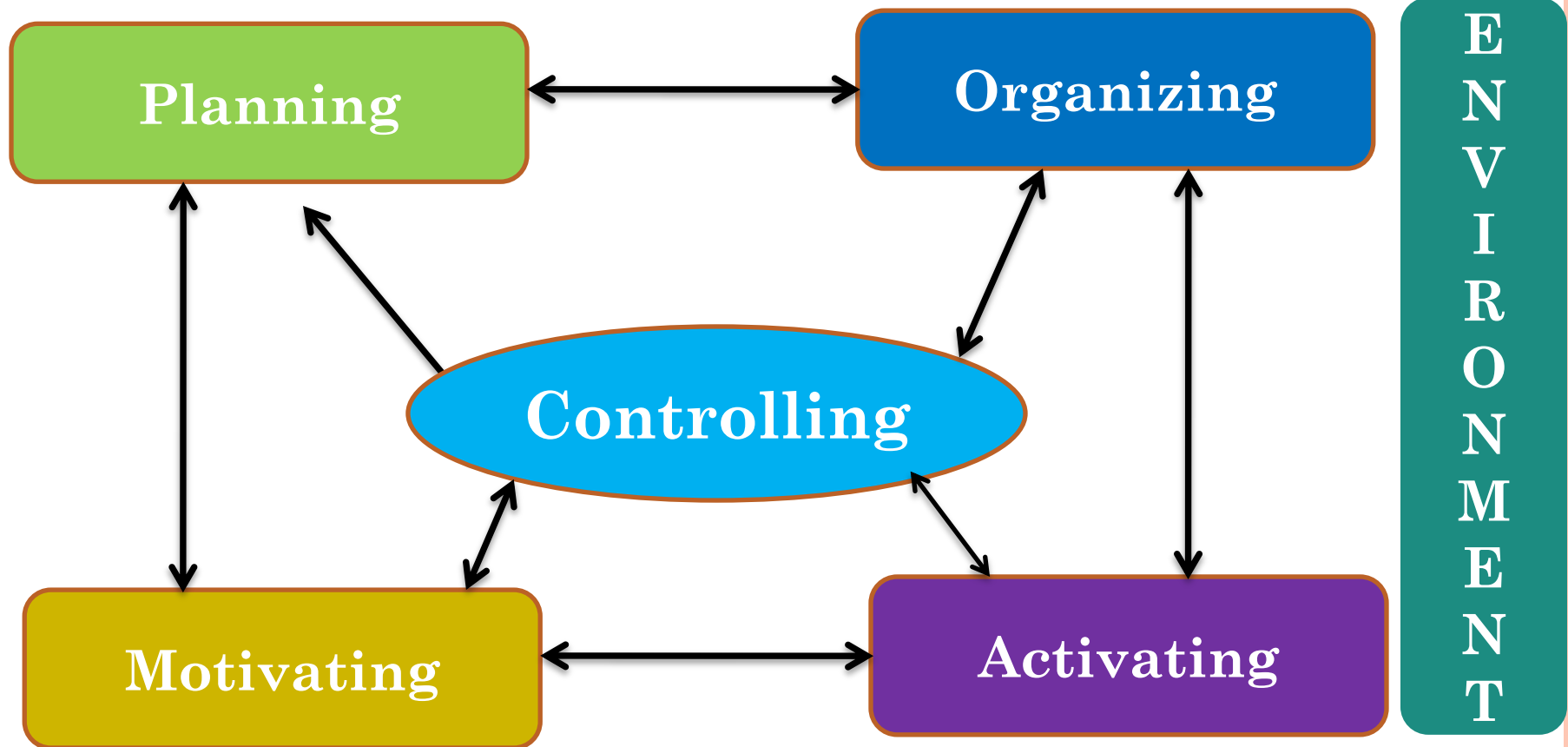
Motivating

- Inducing People to be Productive in an Organization
- **Activities:** Leading, Directing, Guiding etc.

Controlling

- Results of an operation conform as closely as possible to established plan
- **Activities:** Establishing standards, Measuring Performance.

Principles and Concepts of Management



Dynamic Interaction of Management Sub-Processes

Principles and Concepts of Management

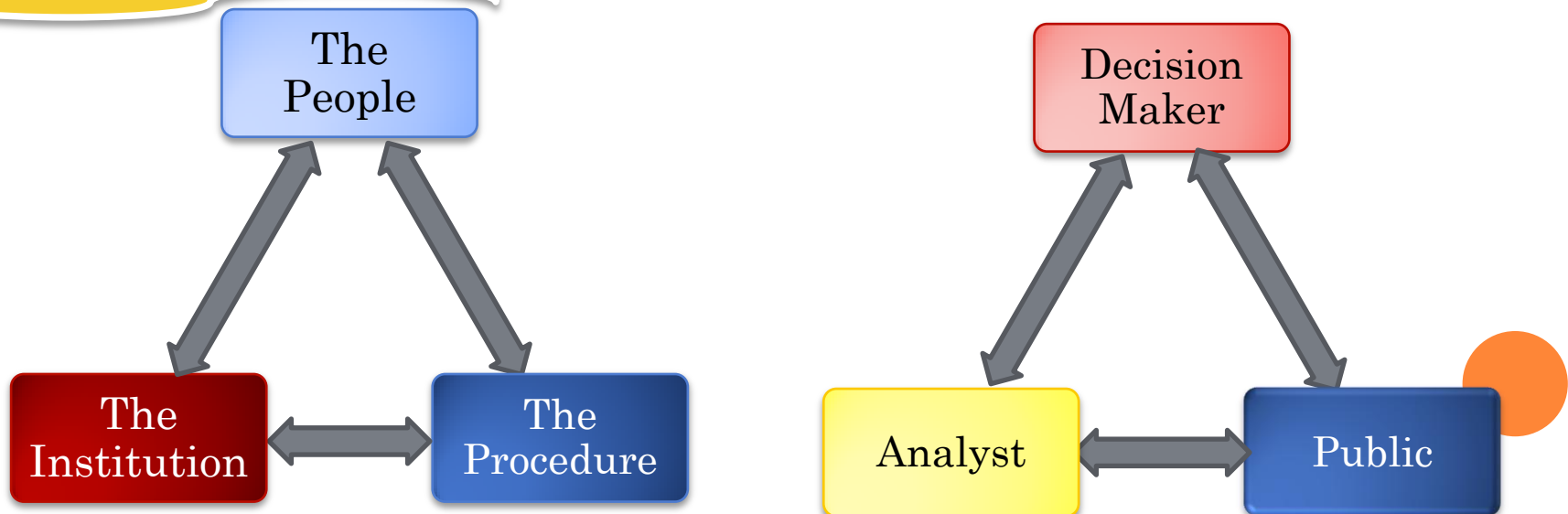
Whichever way he looks at his job, a Manager has to be **concerned** with

1. The People

2. The Framework or Structure

3. The Methodology

These Three interact



Principles and Concepts of Management

“Management as a Meta Process”

It is a Process: it comprises a series of activities through which an organization accomplishes desired objectives. It has System characteristics (a System is a collection of complex and dynamically interrelated components (sub systems) each of which accomplishes an operational process through the interaction of inputs and its environment to Produce overall operational outputs)



Principles and Concepts of Management

Management Process Consists of

Social Process

Activities are concerned with relations between people

Dynamic Process

Activities are related with time and changes

Complex Process

Complex interrelationship amongst the activities.

It is a “Meta-Process”: Study based on the perception of management as a System as well as a Process.

Framework for Planning Process

1. Concepts of Planning Process

- What is planning?
Choosing, thinking, setting objectives.
- What is plan? Result of Planning, blueprint
- Purpose of planning to discover future opportunities & exploit them
- Planning is a process

2. Nature of Planning

- Continuous and Dynamic Process
- Planning is structured etc.

Framework for Planning Process

3. Dimensions of Planning

a. Time Long-range, mid-range, short-range	b. Level Top-mgt, Middle mgt, Lower mgt	c. Subject Production, R&D, Personnel	d. Element Strategy, Program, Procedure, Rules, Regulations	e. Characteristics Flexible, Rigid
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4. Importance & Limitations

Reasons

Sense of direction,
mechanism for co-ordination

Limitations and problems

Forecast, Changes,
Unrealistic, Costly

Principles and Concepts of Management

Different Approaches to Management

Origins of Managerial Concepts

Productivity & Functional Specialization

Approach:
(Oldest theory)



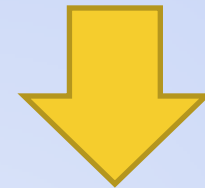
How to produce in abundance (specialization, mechanization, automation, division of labour)

Behavioral Approach :



Study of observable and variable human behavior in organizations (psychology, sociology, anthropology)

Rationalistic Model Approach:



Applications of science (operations research, econometrics, systems theory)

Principles and Concepts of Management

Scientific Management Movement

- Developed by Frederick Taylor
- The system embodied several factors (separation of planning & doing, elements of jobs, methods of performing work)

Human Relations Movement

- Developed by Elton Mayo
- Based on the concept “sense of belonging” (cohesive & stable work group)
- Employees would be happy if they belong to a cohesive group.

Principles and Concepts of Management

Administrative Science Movement

- Developed by Henri Fayol
- Believed that there is an “administrative Science” applicable to all functions
- Important Principles are “Unity of Command” “Unity of Direction”, “Responsibility equal to Authority”.

Management Science Movement

- Quantitative Techniques for organizational decision making
- Use of Scientific methods by management
- Employees would be happy if they belong to a cohesive group.
- This method offers some potentialities for problem solving.
- Mathematical procedures (LP, dynamic programming, statistical techniques, simulation etc)
- Use of electronic computers

Principles and Concepts of Management

Classification of Management Theories

Most of the management theories can be classified into one of the following **Eight “Schools”** of thoughts

1. Management Process School
– as process

2. Empirical School
– experience of success or failure

3. Human Behavior School
– Human relations, interpersonal relationship

4. Social System School
– cultural interrelationships

5. Decision Theory School
– Selection Among Alternatives

6. Information Systems School
– communication is essential

7. Mathematical School
– mathematical models

8. Total Systems school
– from systems point of view

Principles and Concepts of Management

MANAGEMENT TASK



Various valuable but diffuse lines of thought become strong managerial forces when bound together by means of the operational framework



Management Organization

Organization is a mechanism which enables people to work most effectively together for the purpose of accomplishing specific objectives.

Steps or elements of Organization

1. Identification and Grouping of Work - dividing into various parts and combining these parts into integrated wholes. (Departmentation)



2. Definition & Delegation of responsibility and authority

Process of Delegation



3. **Establishment of Relationships**

Establish co-operative relationships between various positions and departments

Management Organization

Benefits of Organization

- ❖ It facilitates administration
- ❖ It provides the best use of human beings.
- ❖ It stimulates creativity etc.
- ❖ It is indeed the foundation of management
- ❖ It facilitates Growth/Expansion.



Management Organization

PRINCIPLES OF ORGANIZATION

For systematic approach to the formulation of organization structure, there ought to be a body of accepted principles (agreed basic factors). These are:

- Objective & Policy (objectives must be clearly fixed).
- Departmentation (Proper division of function).
- Functionalisation (division of activities according to functions).
- Specialization (facilitates specialization of activities).
- Definiteness (every one must definitely know his place & purpose)
- Balance (various units of organization should be kept in balance).
- Co-ordination (Permit easy co-ordination).
- Clear allocation of duties and responsibilities.
- Span of control (number of subordinates to be controlled).
- Provision of growth / expansion.
- Promotion of satisfaction (of individuals)

Creation of Jobs and Departmentation

Departmentation

- Dividing the operative work usually on the basis some common characteristics.
- Merging operative tasks into jobs
- Liking of jobs into working groups

Patterns for Departmentation

- Grouping by products or services.
- Grouping customers.
- Grouping time (shifting)
- Grouping by Process or equipment.
- Grouping by Function (Tech, Non-tech, skills & knowledge).
- Grouping by Location (geographic division).

Creation of Jobs and Departmentation

Key Factors in Departmentation

1. Take Advantage Of Specialization

Use of functional specialists

Technical specialists

Specialized equipment

2. Aid in Coordination

Grouping inter-related activities

Activities with common objectives

Apply most use creation

3. Facilitate Control

Independent check-separate doing from checking

Deadly parallel-comparable operating unit.

Divide wherever there is clean break

Consider ease of supervision.

Creation of Jobs and Departmentation

Key Factors in Departmentation

4. Recognize Human and Local Needs

Available personnel characteristics

Moral of the people

Informal groups

Balanced job

Environmental condition

5. Secure Adequate Attention

6. Reduce Expense (Reduce Cost)

Creation of Jobs and Departmentation

Principles connected with Departmentation.

Principle of division of work.

Principle of functional definition
(results expected).

Principle of separation

Delegation and Authority Relationship

Delegation simply means entrusting part of the work of operations or management to others. This is the process of passing authority and responsibility to lower levels.

Delegation involves the following:

Assigning duties

Creating obligation or responsibility

Granting authority



Delegation and Authority Relationship

Centralization and Decentralization.

Centralization- decentralization concerns the vertical allocation of management action up and down the management hierarchy, whereas departmentation involves a horizontal allocation of operating work.

Decentralization

- A system of management in which decisions are passed down to lower levels. This concept can be viewed as the pushing downward of the appropriate amount of decision-making authority.

Centralization

- A system of management in which major decisions are made at high levels of management

Delegation and Authority Relationship

Factors for deciding on Decentralization level

- ☀ Who knows the facts on which decision will be based, or who can get them together most readily.
- ☀ Who has the capacity to make sound decisions.
- ☀ Must speedy, on-the-spot decisions be made to meet local conditions.
- ☀ How significant is the decision.
- ☀ How busy are the executive who might be assigned planning tasks.
- ☀ Will initiative and morale be significantly improved by decentralization.
- ☀ Must the local activity be carefully coordinated with other activities.

Delegation and Authority Relationship

Delegation of Authority

It is the process of empowering an individual to exercise legal authority given from a higher organization level.

More specifically, delegation:

- (i) involves the assigning of tasks to certain individuals;
- (ii) involves the assigning of specific authority to act in performing the task assigned;
- (iii) assign responsibility
- (iv) creates obligations that cannot in themselves be delegated.

Delegation of Responsibility

Responsibility cannot be delegated.

While a manager may delegate to a subordinate authority to accomplish a service and the subordinate in turn may delegate a portion of the authority received, neither delegates any of his responsibility.

Responsibility, being an obligation to perform, is owed to one's superior, and no subordinate reduces his responsibility by delegating to another the authority to perform his duty.

Delegation and Authority Relationship

Principles connected with authority structure

The scalar principle

Principle of delegation

Principle of absoluteness of responsibility

Principle of parity of authority and responsibility

Unity of command principle

The authority – level principle

Key factors in delegation

a.

Responsibility and authority should go hand in hand

b.

Responsibility cannot be delegated

c. Avoid dual subordinations

d. Duties include interactions

Delegation and Authority Relationship

Concepts of Authority relationship

a. Authority

The legal or rightful power to give direct orders to subordinates. It is a right to command or to act

b. Responsibility

The obligation one has to act in response to an order issued by higher authority

c. Accountability

The extent to which a subordinate may be held by his superior to be directly responsible for results, good or bad

d. Official authority and personal authority

e. Legal and informal authority

f. Functional authority

g. Authority and power

h. Authority and influence

Delegation and Authority Relationship

Delegation of Authority

Why delegate?

- It extends the results beyond what one person can do.
- Releases time for other tasks of greater importance.
- Develops the skills of others, decision making etc.
- Speeds up decisions and actions.
- Puts decisions in the hands of those who are closest to the action, where fact & expertise are available.

Delegation and Authority Relationship

Delegation of Authority

Even though these benefits, Delegation is poorly Practiced skill. The following excuses are:

--- “I can do it better than anyone else”

--- “I did not think of it”.

--- “My staff will respect me more if I do it”

--- “My staff is already too busy”.

Some signs that your delegation is falling short:

- ❖ Taking work at home.
- ❖ Rushing to meet deadlines and targets.
- ❖ Working longer hours.

Delegation and Authority Relationship

Delegation of Authority

Key Steps in Delegation

Choose a capable person.

Explain the objectives and goals

Give the person the tools and authority

Follow up and maintain Contact

**Be ready to accept other approaches to the task
(Person may not have done it)**

**Acknowledge and recognize the work
performed.**

Delegation and Authority Relationship

Delegation of Authority

Remember:

- ❖ Delegation is the act of passing along authority to the other people.
- ❖ It is a vital tool for Self management.
- ❖ Many people want to delegate responsibility, not authority. (This does not work)



Organization Chart/Organization Structures

- ❑ Deals with overall organizational structural arrangements in an enterprise
- ❑ Is designed to clarify the environment so that every one knows who is to do what and who is responsible to whom for what actions/reasons.
- ❑ Can be shown by drawing organizational Chart i.e to show the “Chain of command” (the hierarchy of superiors and sub-ordinates)



Organization Chart/Organization Structures

Structural Form:

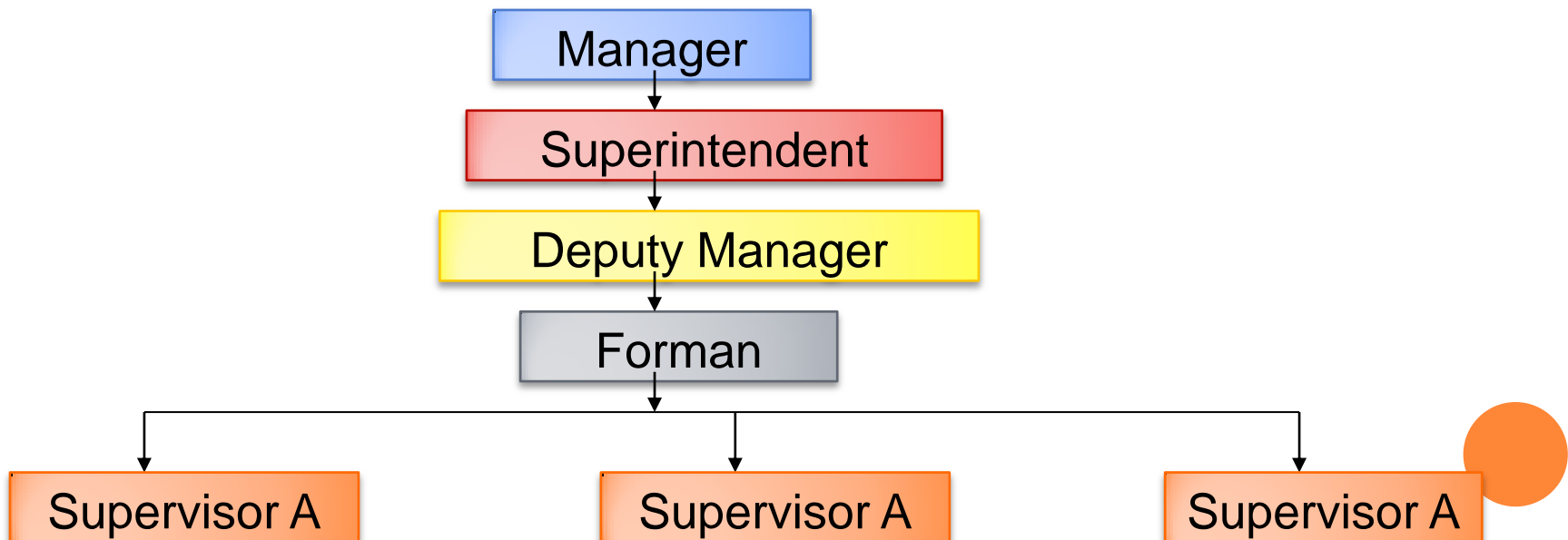
Line or Military organization

Functional organization

Line & Staff organization

Matrix organization etc.

Example : Line Organization



Organization Chart/Organization Structures

Line Organization

Advantages

Simplicity

Fixed responsibilities

Duties and responsibilities
are clearly defined

Unified Control

Motivates workers

Disadvantages

Increases work load
of the executives

Lack of specialization
(decision of single
man)

Organization Chart/Organization Structures

Line and Staff Organization

- ✓ Essentially it Consists of the additional of Functional specialists to the simple Line Organization.
- ✓ To Utilize the advantages of both the Functional and the Line organizations, the Line and Staff organization was developed.

Staff Work

It is that part of managerial work that an executive assigns to some one outside the Chain of Command. (staff members are concerned with more of thinking –why, how and less work doing)

Types

Specialist staff

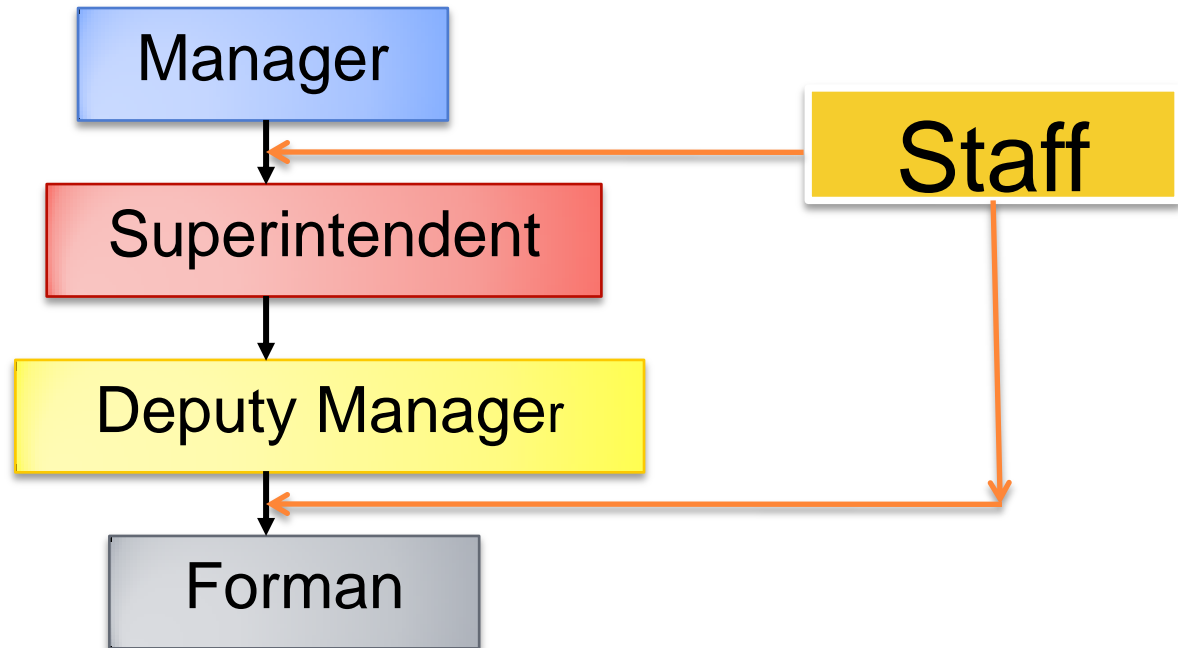
General Staff

Service Staff

Organization Chart/Organization Structures

Line and Staff Organization

Example : Line and Staff Organization



Advantages?

Disadvantages?

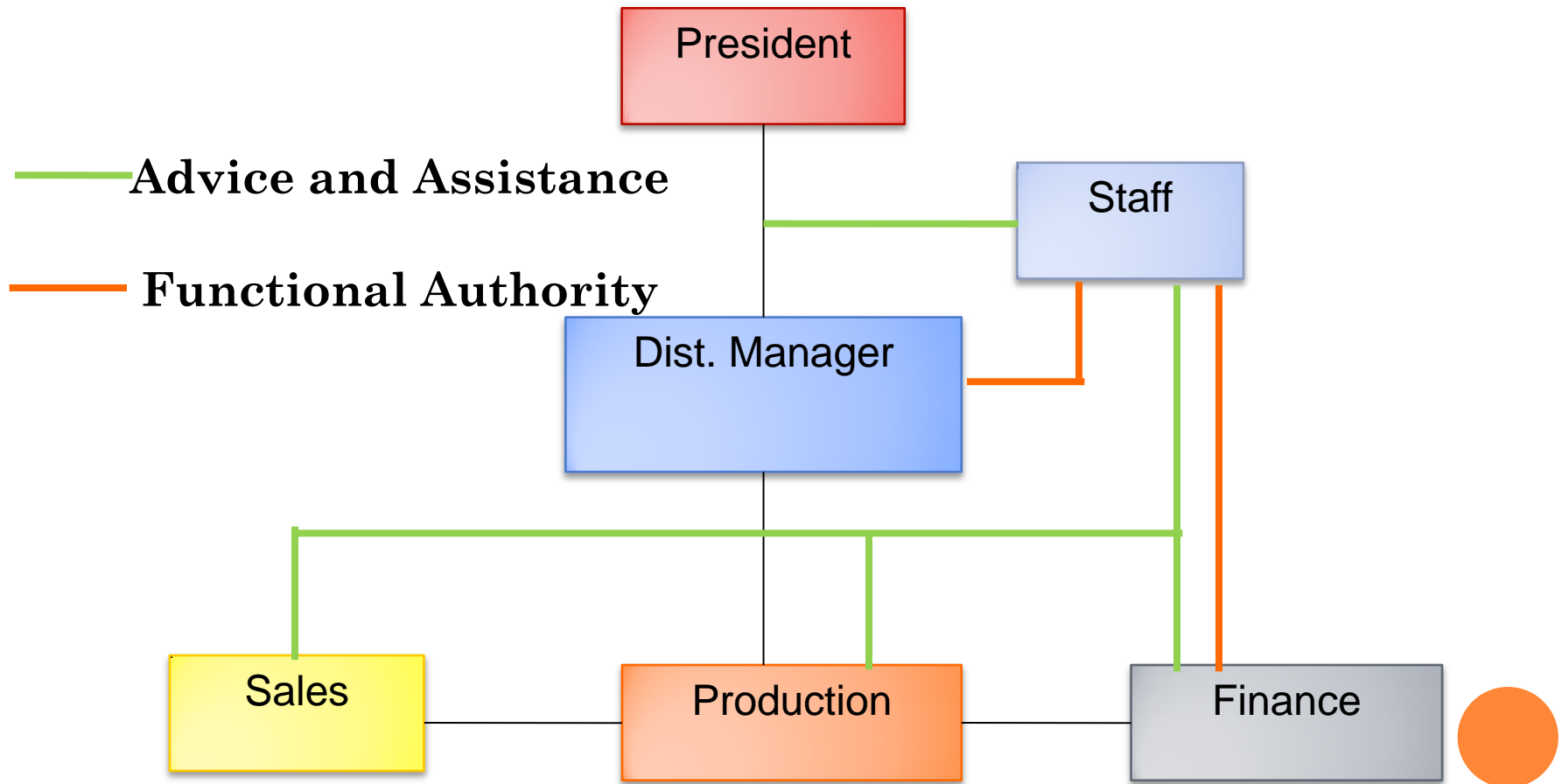
Supervisor A

Supervisor A

Supervisor A

Organization Chart/Organization Structures

Line and Staff Organization



Organization Chart/Organization Structures

Line & Staff Relationships

(a) Line and Staff Concept:

- ❖ Line functions are those which have direct responsibility for accomplishing the objective of the enterprise.
- ❖ Staff refers to those elements of the organization that help the line to work most effectively in accomplishing the primary objectives of the enterprise.

Organization Chart/Organization Structures

Line & Staff Relationships

(b) Staff Work:

It is that part of managerial work that an executive assigns to someone outside the chain of command

Type of Staff

- i) Special Staff ii) General Staff iii) Service Staff

When to use a Staff man?

- Technical or specialized knowledge of a type not possessed by operating executives is needed.
- Uniformity, or at least consistency of action in several operating units is essential.
- To relieve operating executives from investigation, evaluation, appraisal and other types of problem analyzing work.

Organization Chart/Organization Structures

Line & Staff Relationships

(c) Classical concepts of line and staff

(d) Relationship between staff and managers

(e) Problems in using Staff

- a) Vague definition of duties and authority
- b) Scarcity of good staff men
- c) Mixing staff and operating duties.
- d) Danger of undermining line authority.
- e) Disregard of staff by the boss himself
- f) Lack of responsibility of staff.
- g) Management complications.



Organization Chart/Organization Structures

Principles connected with Structural Forms

a. Principle of Span of Control

b. Factors that determine the appropriate Span of Control

- Time devoted to supervision
- Variety and importance of activities being supervised.
- Repetitiveness of activities.
- Degree of decentralization.
- Staff assistance provided
- Geographic contiguity.
- Ability of Subordinates and capability of the superior

Organization Chart/Organization Structures

Principles connected with Structural Forms

c. Other Principles

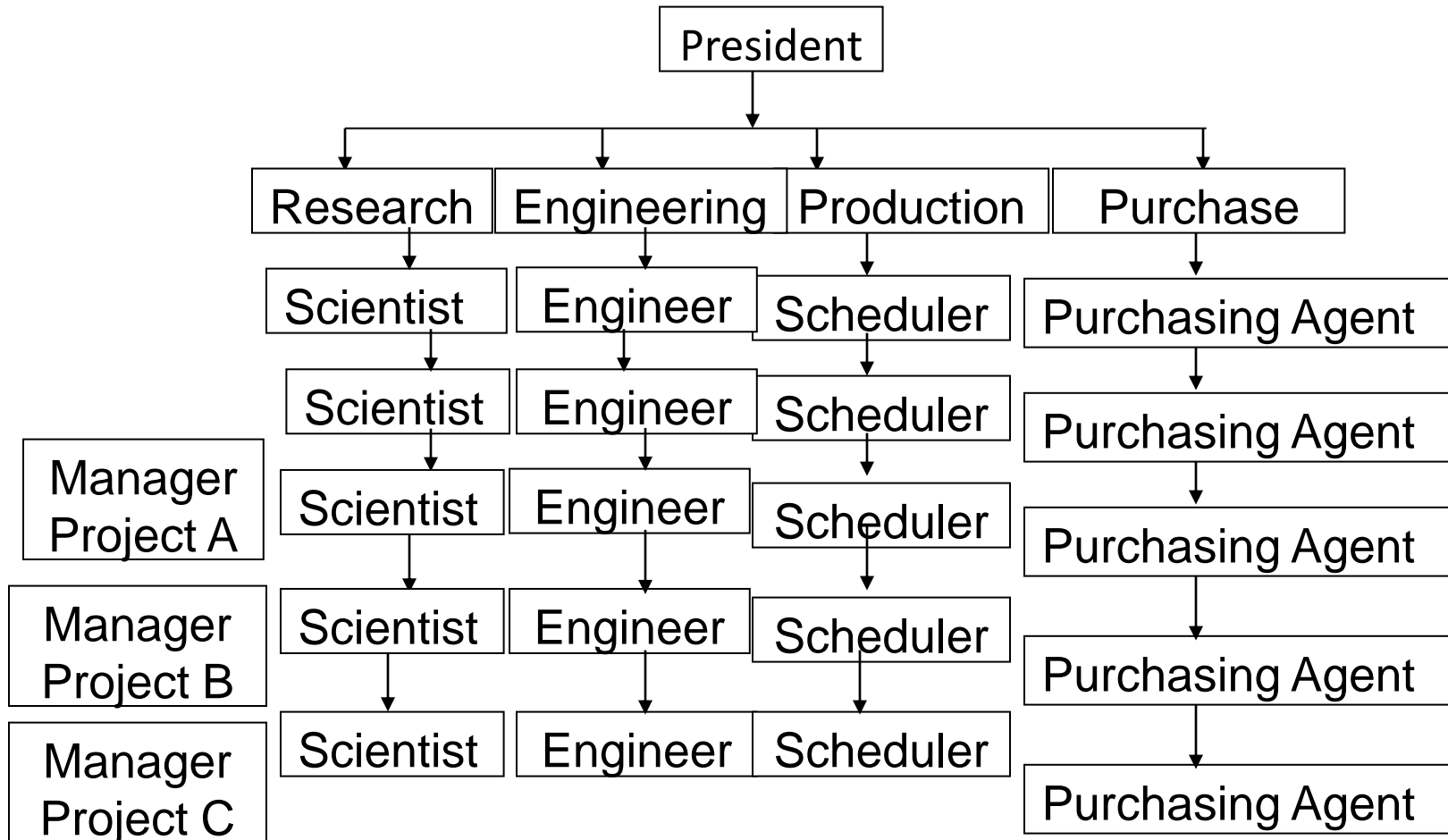
- Principle of unity of objective
- Principle of efficiency
- Principle of flexibility
- Principle of leadership facilitation
- Principle of balance
- Principle of even strata



Organization Chart/Organization Structures

Matrix Organization

New Approach to Structural Design- Combination of traditional functional departmental organization with project organization.



Human Factors

THE FRAMEWORK FOR MOTIVATION

The Concept:

- To Motivate is to induce people to act in a desired manner It involves.
- Understanding human needs
- Leading, directing & guiding
- Influencing, disciplining & rewarding
- Compensating
- Controlling Conflicts
- Manpower Planning Procurement
- Job-man match mythology
- Collective Bargaining



Motivating Approaches: Theories behind motivation

i) Pre-Scientific approaches

The history of man's effort to motivate his fellow men can be summarized as:

- Master-Slave relation (coercion)
- Parent – Child relation
- Material rewards (compensating)



Human Factors

Motivating Approaches:

ii) Maslow's Need Hierarchy model (psychologist)

Stresses ideas:

- Man always want and wants more
- Man's needs are arranged in a hierarchy of importance
- Only needs not yet satisfied can influence behaviour.

iii) McGregor's Theory

- Its key concept is that every executive relates to subordinates on the basis of a set of assumptions.
- He shows these by two distinct Theories : Theory X & Theory Y



Human Factors

iii) Mc Gregor's Theory

Theory X : Traditional assumptions regarding typical worker

- He is by nature adverse to work
- Lacks ambition and avoids responsibility
- Prefers to be led
- Must be moulded to fit the need of organization
- Must be persuaded & pushed, punished
- Must be tightly supervised & controlled.

Theory Y : based on quite different assumption (work situation)

- Work is as natural as play
- Efforts come from willing cooperation
- Average workers seek opportunity for personal improvement & self development
- Abilities, creativities and intellectual potentialities are widely distributed.



Human Factors

Motivating Approaches:

iv) McClelland's Theory on Environmental Determinants

- Individuals have some basic motives
- These are aroused depending on the situation or environment
- Specific motive will not influence behavior until the motive is aroused by an appropriate environmental influence.



Human Factors

PRINCIPLES CONNECTED WITH MOTIVATION

The task of the manager is to channel already existing drives towards many principles.

- Attain integration of organizational and individual satisfaction
- Must realize the human differences
- Effective motivator is the job itself
- Subordinates must allow to motivate the manager himself
- Various techniques of motivation must be examined to suit the most practical and effective with each employee.
- It is the man in the Manager who exerts the greatest impact.



Concept of Morale

Definition

- Morale Pertains to the general feeling of well-being, satisfaction and happiness of people.
- The spirit and willingness with which work is done constitute morale
- Any worker who feels that what he is doing is uninteresting and un-important and offers little personal satisfaction will have low morale and require different supervision from that one who is highly motivated.



Concept of Morale

Morale & Theory X and Y

- Theory X is for people with low morale
- Theory Y is for People with high morale;

Importance of morale

- There is common agreement that high morale is desirable because it produces many effects.



Concept of Morale

○ Effects of High Morale

- Willing cooperation towards organizational objectives
- Loyalty to the organization and its leadership
- Good discipline or voluntary conformance to regulations
- A reasonable display of employee initiative and interest.
- Strong organizational stamina i.e. ability of the organization to “take it” during times of difficulty.



Concept of Morale

- **Conditions that foster Voluntary Cooperation**
 - On-the job satisfaction built into jobs.
 - Matching jobs well with men.
 - Clear organization structure
 - Effective communication network
 - Sound objectives
 - Workable policies, methods, Procedures
 - Balanced Control System.



Understanding Human Needs

Definition

- Needs include both what a person must have and what he merely wants.
- As long as a person wants something, he has a need for it, regardless of what someone else may think of justification for this desire.
- **Need vary widely among individuals, Basic needs are:**
- Physical or Physiological needs
- Security or Safety needs (both economic and psychological)
- Social needs (Sociability, affiliation, esteem)
- Self-Fulfillment needs (self actualization, power, autonomy)



Understanding Human Needs

Classification of Needs

- a) Physiological needs:
 - For survival or physiological maintenance of the body (food, shelter and rest)

- b) Need for security (economic and psychological)
 - Reliable environment
 - Non threatening environment
 - Fairness



Understanding Human Needs

Classification of Needs

c. Social needs

- Through relations with other People (this is strong in most of us)
 - i) need for affiliation
 - desire for belonging; association, acceptance.
 - ii) Need for esteem
 - Desire for status, dominance, recognition, appreciation.



Understanding Human Needs

Classification of Needs

d. Self-fulfillment needs

i) **Need for self-actualization**

Desire for Personal growth and self development, desire to become whatever one is capable of becoming.

ii) **need for power:** influencing others, gaining control

iii) **need for autonomy** i.e. freedom on the job etc.



Understanding Human Needs

Potency of Need


The degree of motivation that can be achieved through satisfying need is determined by the potency of a need, which depends on:

a) Marginal value

- How intensely wants (ie how much has already and what additional worth to him)

b) Aspiration level, i.e. level of aspiration (Level of attainment)

c) Uncalculated values

- rarely does a man calculate marginal value and aspiration level systematically and logically.
 - The potency of a need is more often based on his feelings.
- 

Understanding Human Needs


Meeting Human Needs through Organization

1. **Small Units** – Social satisfaction will be greater in smaller groups; a sense of belonging is stronger in the smaller units.
2. **Isolated job** – We should not isolate an individual
3. **Narrow staff assignments** – Contacts and exchange of information should be roughly equal.
4. **Place in hierarchy** – Most People take pride in reporting to a higher level executives. It enhances their status.



Understanding Human Needs

Meeting Human Needs through Organization

5. Job enlargement – no. of tasks performed by employee is increased and makes the job more interesting
 6. Job enrichment (enable personal achievement, recognition & responsibility)
 7. Job rotation – reduces boredom among others things
 8. Splitting up and reshaping
 9. Degree of decentralization – increases the freedom of action of Subordinates.
- 

The Process of Leading and Leadership Qualities

a) Leading

- It is a matter of dynamic man to man relationships between a manager or supervisor and his subordinates.
- It is a Process by which a supervisor directly and personally influences the behavior of his subordinates.



Leading, Directing and Guiding

b) Leadership functions and activities

1. Guiding and motivating the behaviour of the subordinates to fit the Plans and jobs that have been established. This involves.
 - directing
 - disciplining
 - satisfying needs
2. Understanding the feelings of the subordinates and the problems they face.
3. To look at things from sub-ordinates point of view
4. Influencing subordinates through own performance.
5. Fostering voluntary Co-operation through appropriate behaviour.



Leading, Directing and Guiding

Leading

Qualities that most good Leaders appear to exhibit

- The desire to excel (be famous, be the best)
- A sense of responsibility.
- A capacity of work
- A feel for good human relations
- A Contagious enthusiasm



Leading, Directing and Guiding

Leading

Classification of Leaders

- Formal & Informal Leader, Appointed Supervisor?
- Dale's Classification of Leaders
- The Receptive Leaders
- The Exploitative Leaders
- The Marketing Leaders
- The Hoarding Leaders
- The Productive Leaders
- The Charismatic Leaders



Leading

Guides for Leaders behaviour

- Friendliness & approval
- Consistency & fairness in dealings
- Support & confidence in Subordinates
- Use of Participation in decision making
- Encouraging two –way Communications
- Explaining reasons for decisions & actions



Leading, Directing and Guiding

Directing and Guiding Process

- Directing is a Process of issuing orders or giving instructions to those who are committed to carry out the tasks of the origination.
- Guiding is the interpersonal aspect of managing by which subordinates are led to Understand and Contribute effectively to the attainment of enterprise objectives.
- Directing & Guiding are the mechanisms for Leading.



Issuing orders

- An order initiates, modifies, or stop an activity. Management Plans are communicated to lower levels through official instructions or directions.
- Necessary Components of a good order:
- Complete – including all information
- Clear – Specific, Concrete.
- Doable – feasible, attainable.



Influencing, Disciplining & Rewarding

(Methods for conditioning behavior)

Influencing – Obtaining voluntary obedience/creating environment for voluntary obedience.

Disciplining – Imposing penalties for undesirable behaviour.

Rewarding – bestowing approval for desirable behaviour.



Influencing, Disciplining & Rewarding

Factors for developing & enhancing Influence.

- Personal behaviour
- Determined by status
- Impressive titles
- Pay is significant status symbol
- Location & decoration of office
- Exclusive Privileges identify key men.
- Executive who can provide pertinent information
- Paying attention to the sub-ordinates to what they say



Influencing, Disciplining & Rewarding

Rewarding

- Is a response to unusually desirable behaviour and is a way of bestowing approval.
- By “reward”, we mean benefits like bonus, salary increase etc.

Rewards are Conditional

- Justify additional efforts
- Rewards are directly related to the required Performance etc.



Compensating

Employee Payment

- Relationship between Job and Need satisfaction
- Pay meets Physical needs & those of family
- Symbol of status
- Source of self respect
- Avenue for security
- Incentive Pay increases Productively.
- Methods of Payment

Methods of Payment

- Performance for a period of time
- Completion of a Unit of work and motivation.

Factors in Payment

- Pay must be tied to performance



Compensating

Methods of Payment

- Performance for a period of time
- Completion of a Unit of work and motivation.

Factors in Payment

- Pay must be tied to performance



Compensating

Wage and Salary Administration

- **Role of wage and salary administration**
 - Logical salary/wage structure (Profitability, Social Contribution)

- **Wage and Salary Admin, Procedure**
 - Wage Policy (intentions, trade, financial)
 - Job analysis (type, conditions, qualification)
 - Job rating (evaluation, interrelationships)
 - Job Pricing (wage survey, bargain)
 - Job appraisal (Standards, merit)
 - Wage Control(wage records)



Compensating

Wage Incentives

○ **Objects: For Management and Employee**

For Management:

- Lower Unit cost (from increased Production)
- Improved Cost Control
- Improved utilization of facilities
- Increased worker morale

For Employee

- opportunity to ear money
- Control standards of living.



Controlling Conflicts

The Concept of Conflict

- Origins of Conflict: differences: in objectives, approach etc.
- Conditions for Conflict: Different areas: parties, field etc.
- Positive and Negative outcomes of Conflict.
 - better ideas
 - search for new approaches
 - Solve longstanding Problems
 - Clarity views
 - stimulate interest & creativity
 - Capability tested.



Controlling Conflicts

Handling of Conflict

The issues at stake

- Facts
- Goals
- Methods
- Values

Conflict handling modes

- Competing
- Accommodating
- Avoiding
- Compromising
- Collaborating



Manning the Organization

Matching jobs and individuals

- Development of job-man match methodology
- Steps in matching jobs & individuals
 - Clarify job specifications
 - Translating job descriptions into man specifications
 - Development of skill profiles
 - Manpower Procurement
 - Manpower Development
- Factors in matching jobs and individuals
 - Training
 - Performance
 - Duration etc.



Manning the Organization

Manpower Planning & Procurement

○ Manpower Planning

- Short-run Planning – present employees and jobs.
- Long-run Planning – filling future positions.

○ Steps in long –run Planning

- Projecting
- Matching
- Individual development



Manning the Organization

Manpower Planning & Procurement

- **Procurement (Selecting and hiring)**
 - Selection Procedure
 - Important Personality Characteristics
 - Decision making talent –
 - ✓ Analytical ability,
 - ✓ Conceptual ability
 - ✓ Creativity
 - ✓ Intuitive Judgment
 - Leadership capability
 - Self-reliance
 - Social Sensitivity
 - Emotional stability



Labour Relations and Collective Bargaining

Definitions

- **Labour Relation:** negotiation and/or administration of labour contracts or labour agreements as a group.
- **Collective Bargaining:** A Process by which labour representatives bargain with management over the terms and conditions of work.
 - Labour acts collectively through the Union.
- **Union:** Continuous association of Wage earners for the purpose of maintaining and/or improving the conditions of their working lives.



Labour Relations and Collective Bargaining

Labour Relations movement

- Trade Union emergence: dissociation between master and men
- Basic conflict between employees and employers
- Labour objects Scientific management.

Reasons for Unionism

- Individual workers are weak to stand against employer. Unions help
- Strengthen position of workers
- Better working condition & compensation
- decent treatment and
- satisfaction of needs



Labour Relations and Collective Bargaining

Classification of Labour Relations

Collective Bargaining:

- Patterns of Collective bargaining two basic types- Trade Unions and Industrial Unions.
- Getting and keeping union recognition
- Strike Strategy and tactics
- Issues in collective bargaining
- Employers associations

Government Regulations:

- e.g. Labour laws-working hours, min.wage, overtime.



Labour Relations and Collective Bargaining

- Issues in Collective Bargaining
 - Wage bargain
 - Job structure, standard
 - Insurance and income continuity
 - Pension
 - Health & welfare plan
 - Employment benefits
 - Individual security

