

FUNDAMENTALS OF MANAGEMENT FOR ENGINEERS

M.RATNA

Assistant Professor

Narsimha Reddy Engineering College
(Autonomous)

Kompally, Secunderabad, Telangana, India



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Maisammaguda (V), Kompally - 500100, Secunderabad, Telangana State, India

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UNIT-2

PLANNING AND DECISION MAKING

GENERAL FRAME WORK OF PLANNING



- Planning is the process of deciding in advance what to do and how to do it. It begins with setting clear and achievable objectives. Planning premises are developed based on future assumptions. Various alternative courses of action are identified. Each alternative is carefully evaluated for feasibility and outcomes. The best alternative is selected for execution. Supporting plans like policies and budgets are prepared. Resources are allocated and the plan is implemented. Progress is continuously monitored and controlled. Feedback is used to make necessary improvements and adjustments.

TYPES OF PLANS

- Plans are classified based on their purpose, scope, and time frame
- . **Objectives** define the goals to be achieved.
- **Strategies** are long-term action plans to achieve objectives.
- **Policies** provide guidelines for decision-making.
- **Procedures** specify step-by-step methods to perform tasks
- **Rules** are strict instructions that must be followed
- . **Programs** are detailed plans combining goals, policies, and procedures.
- **Budgets** are financial plans showing expected income and expenditure.
- **Short-term plans** are prepared for a limited period.
- **Long-term plans** focus on future growth and development.

PRODUCTION AND PLANNING CONTROL



- Production Planning and Control (PPC) is the process of planning, organizing, and controlling production activities. It ensures efficient use of resources like men, machines, and materials.
- Production planning decides what, how much, and when to produce. Routing determines the path and sequence of operations.
- Scheduling fixes the time and order of each production activity. Loading allocates work to machines and workers.
- Dispatching issues instructions to start production work. Follow-up ensures that production is proceeding as per plan.
- Inspection checks the quality of output at different stages. PPC helps in minimizing costs, avoiding delays, and improving productivity.

DECISION MAKING AND PROBLEM SOLVING



- Decision making is the process of selecting the best course of action from alternatives.
- Problem solving involves identifying and resolving issues effectively.
- It starts with recognizing and defining the problem clearly.
- Relevant information is collected and analyzed.
- Possible alternatives or solutions are generated.
- Each alternative is evaluated based on feasibility and outcomes.
- The best solution is selected for implementation.
- The decision is implemented with proper planning and resources.
- Results are monitored and compared with expected outcomes.
- Feedback is used to improve future decisions and solve problems better.

PROGRAMMED AND NON PROGRAMME DECISIONS



- Decisions are classified into programmed and non-programmed decisions.
- **Programmed decisions** are routine and repetitive in nature.
- They are based on established rules, procedures, and policies.
- These decisions are taken for structured and familiar problems.
- They require less managerial judgment and creativity.
- **Non-programmed decisions** are unique and non-repetitive.
- They deal with unstructured and new problems.
- These decisions require creativity, intuition, and judgment.
- They are usually taken by top-level management.
- Both types are important for effective organizational functioning.

BOUNDFED RATIONALITY



- **Bounded rationality** is a concept developed by Herbert A. Simon. It states that decision makers have limited information, time, and cognitive ability. Because of these limits, managers cannot make perfectly rational decisions. Instead, they choose a satisfactory solution rather than the optimal one. This behavior is known as “satisficing.” Decision making is influenced by incomplete or imperfect information. Time constraints also force quick and less detailed decisions. Personal biases and emotions affect judgment. Organizational factors like policies and culture influence choices. Thus, bounded rationality leads to practical but not always ideal decisions.

GROUP PROBLEM SOLVING AND DECISION MAKING



- Group problem solving and decision making involve collective efforts of a team. It brings together diverse skills, knowledge, and perspectives.
- The process starts with identifying and defining the problem. Members generate multiple ideas through discussion and brainstorming.
- Alternatives are evaluated collectively for effectiveness. Group decisions often lead to better quality solutions. It increases participation and acceptance among members.
- However, it may be time-consuming and lead to conflicts. Issues like groupthink can affect decision quality. Proper coordination and leadership ensure effective group decisions.

CREATIVITY AND INNOVATION IN MANAGERIAL WORK



- Creativity in managerial work refers to generating new and useful ideas.
- Innovation involves implementing these creative ideas in practice.
- Managers use creativity to solve problems in unique ways.
- Innovation helps organizations improve products, services, and processes. It enhances competitiveness and adaptability in a dynamic environment.
- Creative thinking encourages employees to contribute new ideas. Managers promote innovation through a supportive work culture.
- Risk-taking and experimentation are important for innovation.
- Technology plays a key role in enabling creativity and innovation
- . Together, creativity and innovation drive organizational growth and success.