

Fundamentals of management for Engineers[23MB710]
M.RATNA[MBA]



**NARSIMHA REDDY
ENGINEERING COLLEGE**

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UNIT-2

PLANNING AND DECISION MAKING



INTRODUCTION TO PLANNING

Planning is the most fundamental function of management. An organization can succeed in effective utilization of its human, financial and material resources. Planning involves determination of objectives of the business, formation of programs and courses of action for their attainment, development of schedules and timings of action and assignment of responsibilities for their implementation. Planning thus precedes all efforts and action, as it is the plans and programs that determine the kind of decisions and activities required for the attainment of the desired goals. In the absence of planning, it will be impossible to decide what activities are required, how they should be combined into jobs and departments, who will be responsible for what kind of decisions and actions, and how various decisions and activities are to be coordinated.

Definition of Planning

Planning is the process of deciding in advance what is to be done, who is to do it, how it is to be done and when it is to be done. It is the process of determining a course of action, so as to achieve the desired results. It helps to bridge the gap from where we are, to where we want to go. It makes it possible for things to occur which would not otherwise happen. Planning is a higher order mental process requiring the use of intellectual faculties, imagination, foresight and sound judgment.

According to Koontz O'Donnell - "Planning is an intellectual process, the conscious determination of courses of action, the basing of decisions on purpose, acts and considered estimates".

Planning Elements

1. **What will be done** – what are the objectives of business in the short and in the long run?
2. **What resources will be required** – This involves estimation of the available and potential resources, estimation of resources required for the achievement of objectives, and filling the gap between the two, if any.



3. **How it will be done** – This involves two things : (i) determination of tasks, activities, projects, programs, etc., required for the attainment of objectives, and (ii) formulation of strategies, policies, procedures, methods, standard and budgets for the above purpose.
4. **Who will do it** – It involves assignment of responsibilities to various managers relating to contributions they are expected to make for the attainment of enterprise objectives. This is preceded by the breaking down of the total enterprise objectives into segmental objectives, resulting into divisional, departmental, sectional and individual objectives.
5. **When it will be done** – It involves determination of the timing and sequence, if any, for the performance of various activities and execution of various projects and their parts.

NATURE/CHARACTERISTICS OF PLANNING

1. **Goal oriented:** Planning centers around the corporate mission and goals. So planning is said to be goal oriented. It contributes positively to achievement of mission and goals. It identifies the measures to be taken to achieve the targeted results efficiently and economically.
2. **Intellectual process:** Not everybody can be good at planning. Planning is not guessing. One should be capable of thinking in a systematic manner. It is so because planning demands intellectual skills such as vision, farsighted outlook, imagination and analytical skills to take rational decisions.
3. **Involves choice:** There are alternatives available to achieve a particular target. The manager has to select the best alternative based on the merits and demerits of each alternative.
4. **Basis for other functions:** Since planning is first function of the manager, the results of planning form the basis for all other managerial functions.
5. **Pervasive in nature:** Planning is essential for all organizations – small or big, domestic or foreign, profit-making or non-profit making oriented. Managers at the top, middle and lower levels in

any organization have to systematically plan for the future. Thus, planning is said to be all pervasive.

6. **Continuous and dynamic:** Business environment is complex and keeps changing. Consequently, plans also need to be dynamic. They have to be worked out for a given





timeframe at the end of which they must be reviewed and new plans prepared for the next year. Thus, planning is a continuous process.

7. **Flexible in nature:** Plans should not be rigid. They should be flexible in nature and accommodate a change in circumstances.
8. **Intends to enhance efficiency:** the aim of planning is to achieve the maximum targets at minimum cost and quickly. So all plans should be cost effective and worth their investments. The benefits from a plan should be more than its costs.

IMPORTANCE OF PLANNING

1. **Helps to achieve targets:** Plans are expressed in terms of budgets. Budgets act as targets. Every manager strives hard to achieve a given target. Thus, planning contributes to target achievement.
2. **Minimizes uncertainty and risk:** Business environment is uncertain and risky. Planning is the only way to move towards certainty and confidence.
3. **Guide for action:** Plans direct people towards achieving goals. As part of planning, organizations keep a list of supporting plans, policies, procedures, programs, strategies, rules and budgets to guide their people towards the goals.
4. **Ensures order:** Organizations walk into chaos if they don't plan properly. The only way to ensure order is to think of probable problems in advance and create the necessary infrastructure to sort them out.
5. **Improves efficiency:** Efficiency means doing things correctly and at minimum cost. Every department has a budget. It means all possible activities have been considered while framing



the budget. Clear plans leave only one task for managers – their implementation. Planning is bound to improve efficiency.

- 6. **Facilitate control:** Plan is a means of control. The actual performance of the organization and also its members can be evaluated based on plans.





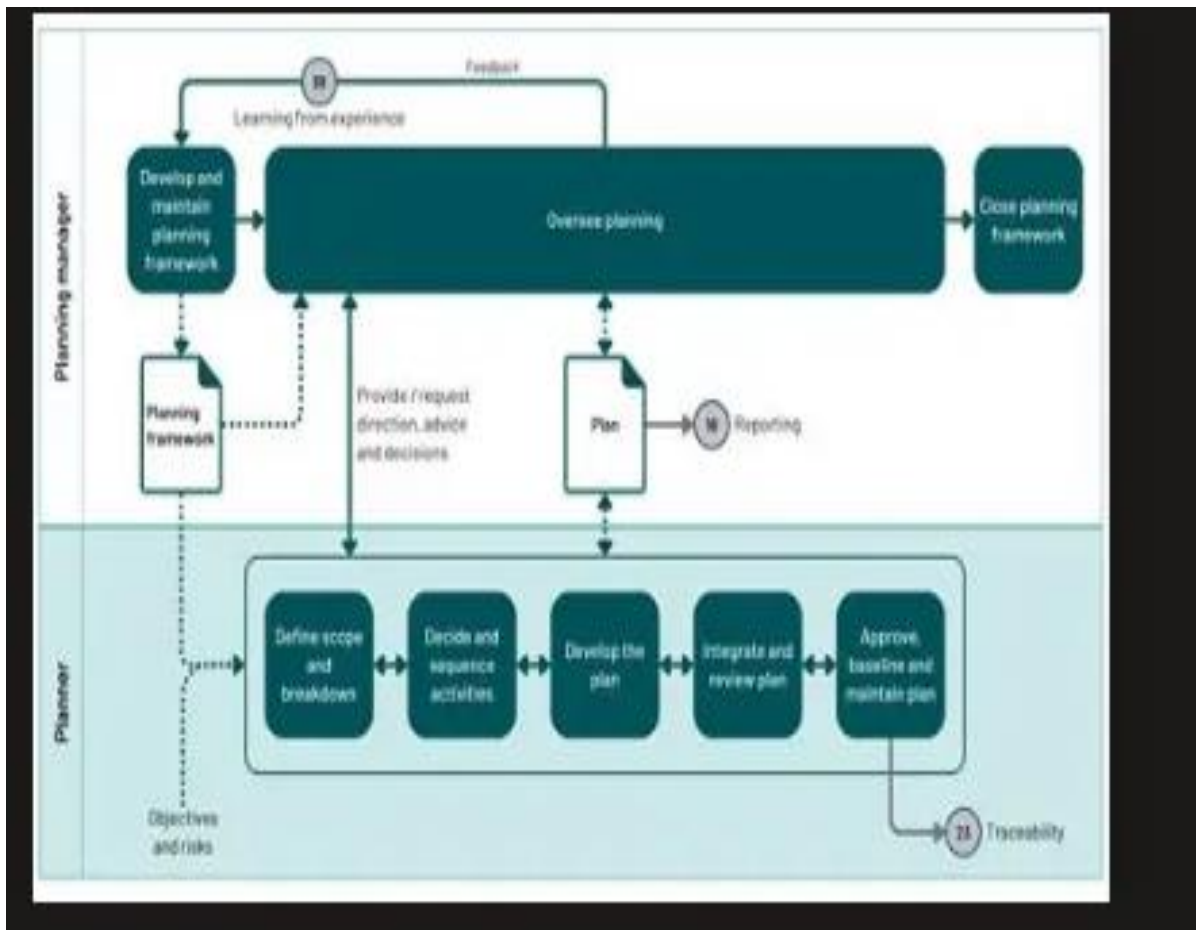
7. **Promotes innovation and creativity:** Progressive organizations involve their staff in organizational planning. Planning is considered a means to promote innovation and creativity among the staff.
8. **Coordination made easy:** Plans indicate what the employees have to do to attain their goals. Plans make it easier for managers to coordinate the efforts of their staff.

GENERAL FRAMEWORK FOR PLANNING

1. **Define present situation:** Define the present situation (includes examining internal capabilities and external threats and opportunities).
2. **Establish goals and objectives:** Establish goals that can continue to focus on what the business can do best
3. **Analyze environment:** Analyze the environment in terms of aids and barriers to goals and objectives: Predict which internal and external factors will foster or hinder attainment of desired goals
4. **Develop action plans:** Develop action plans for reaching goals and objectives (without action plans, goals may not be attained). Develop budgets (most action plans require money, so realistic budgets have to be developed). Implement the plans (plans are often developed then forgotten).
5. **Develop budgets:** Among the expenses would be larger advertising and promotion budgets
6. **Implement the plans:** If the plans developed in the previous five steps are to benefit the firm, they must be put to use.
7. **Control the plans:** Control the plans (evaluate progress and make any necessary adjustments for lack of progress). Make contingency plans (develop an alternative in case the original plan cannot be



implemented successfully or at all; an exit strategy might be part of the contingency plan).



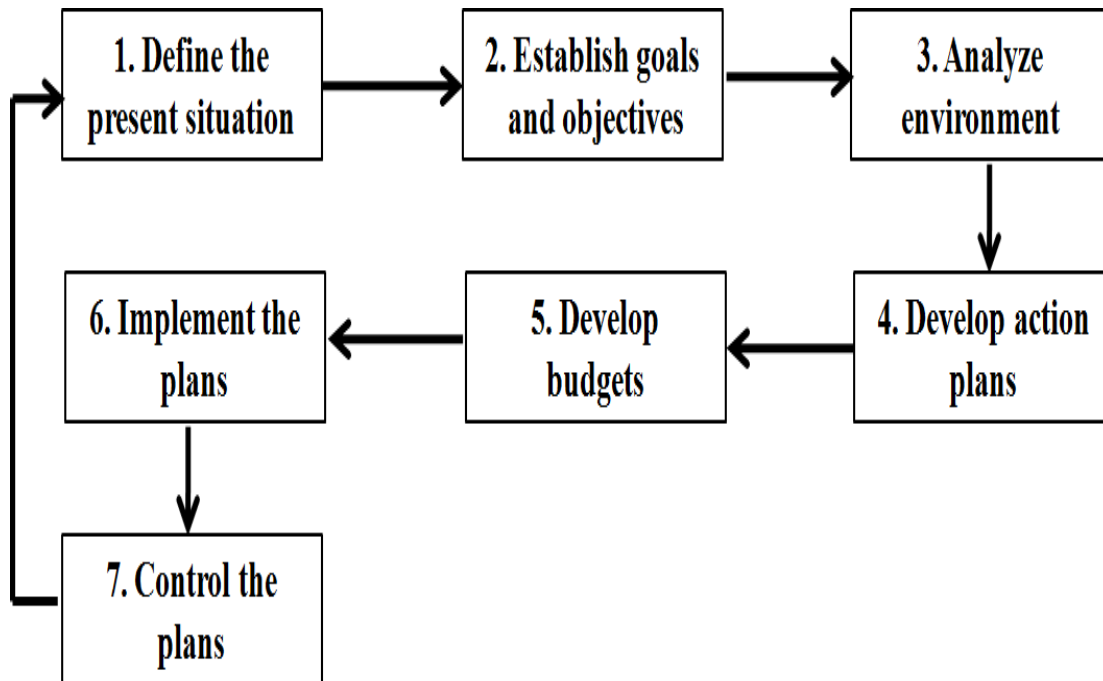


Fig: General Frame Work for Planning

PLANNING PROCESS

The following eight main steps are involved in the planning process of an organization.

1. Identifying Opportunities: Real planning starts with knowing the availability of different opportunities. For each opportunity, assess carefully the size of markets, type of markets, type of customers, degree of competition, needs of customers, finances required and the strengths and weaknesses of the firm. Then, identify the right opportunity.



2. Defining goals: Once the opportunity is identified, define the goals you want to achieve for the entire organization. Goals, in turn, will throw light on what objectives, strategies, policies, procedures, rules, budgets and programs you should follow. This is to be done for the long term as well as for the short range. Goals specify the expected results and indicate the end points of what is to be done, where the primary emphasis is to be placed and what is to be accomplished by the various types of plans.

3. Considering Planning Premises: After determination of organizational goals, the next step is establishing planning premises that is the conditions under which planning activities will be undertaken. Planning premises refers to the assumptions about the environment in which plans have to be carried out. Correct assumptions about markets, completion, product technology, prices, volume of sales, costs, tax rates etc. are essential for business planning. Government policies, annual budgets, economic indicators, survey of specific industries etc. provide valuable insights on the basis of which „premises“ can be worked out.



Thus planning premises are external and internal. **External premises** include total factors in task environment like political, social, technological, competitors, plans and actions, government policies. **Internal premises** include organization's policies, resources of various types, and the ability of the organization to withstand the environmental pressure. The plans are formulated in the light of both external and internal factors.

4. Identifying Alternatives: The fourth step in planning is to identify the alternatives. Various alternatives can be identified based on the organizational goals and planning premises. The concept of various alternatives suggests that a particular goals can be achieved through various actions.

For example, if an organization has set its goals to grow further, it can be achieved in several ways like expanding in the same Field of business or product line diversifying in other areas, joining hands with other organizations, or taking over another organization and so on. Within each category, there may be several alternatives.

5. Evaluating Alternatives: The various alternative courses of action should be analyzed in the light of premises and goals. There are various techniques available to evaluate alternatives. The evaluation is to be done in the light of various factors. Example, cash inflow and outflow, risks, limited resources, expected pay back etc., the alternatives should give us the best chance of meeting our goals at the lowest cost and highest profit.



6. Choosing the Best Alternative: The best alternative is chosen on the given situation. Normally, it involves optimum utilization of resources. At times, an analysis and evaluation of alternative courses will disclose that two or more alternatives are advisable and beneficial. The fit one is selected.

7. Formulating Supporting Plans: After formulating the basic plan, various plans are derived so as to support the main plan. In an organization there can be various derivative plans like planning for buying equipment, buying raw materials, recruiting and training personnel, developing new product etc. These derivative plans are formulated out of the basic or main plan and almost invariably required to support the basic plan.



8. Making Budgets: After formulating basic and derivative plans, the sequence of activities is determined so those plans are put into action. After decisions are made and plans are set, budgets for various periods and divisions can be prepared to give plans more concrete meaning for implementation.

Budget is “numerical expression” of a plan. The overall budgets of an enterprise represent the sum total of income and expenses, with resultant profit or surplus, and budgets of major balance sheet items such as cash and capital expenditures. Each department or program of a business or other enterprise can have its own budgets, usually of expenses and capital expenditures, which tie into the overall budget.

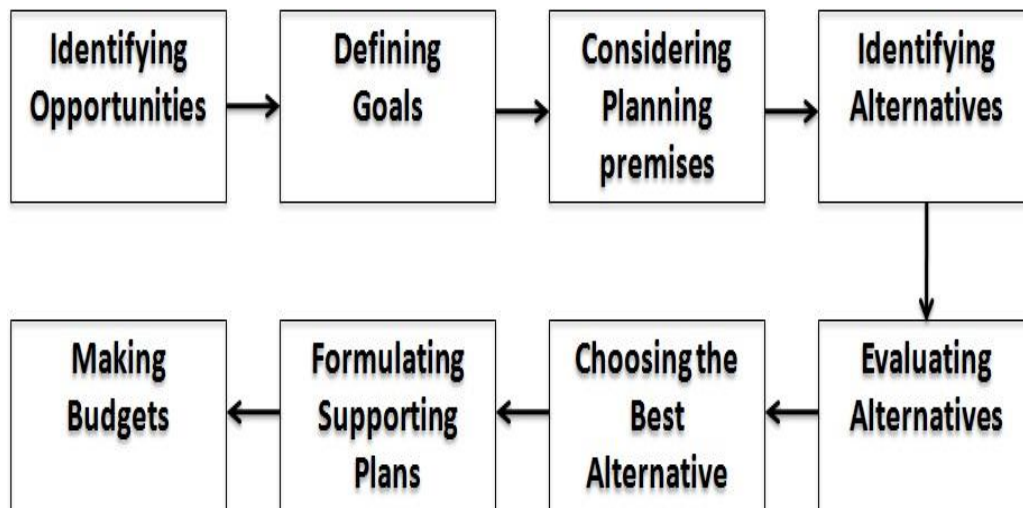


Fig: Steps in Planning



MANAGEMENT BY OBJECTIVES (MBO)

The term Management By Objectives (MBO) has been popularized by Peter Drucker in his 1954 book *“The Practice of Management”* and George S. Odiorne gave depth to the meaning and usage of MBO through his book *“Management By Objectives: A System of Managerial Leadership”*. It is the process of defining objectives within an organization so that management and employees agree collectively to the objectives and understand what they need to do in the organization. It suggests that objectives should not be imposed on subordinates but should be decided collectively by a concerned with the management. This provides not only supports but eases and quickness the achievement of such objectives.

It concentrates on the achievement of objectives through participation of all concerned through team spirit and trust on one another. This not only supports but also eases and speeds up reaching



the goals. Thus, MBO has become the most widely accepted philosophy of management today due to its demanding and rewarding style.

The principle behind Management by Objectives (MBO) is to make sure that everybody within the organization has a clear understanding of the aims, or objectives of that organization, as well as awareness of their own roles and responsibilities in achieving those aims.

Definition of MBO

George S. Odiorne defines “MBO is a process whereby superior and subordinate managers of an organization jointly define its common goals, define each individual’s major areas of responsibility in terms of results expected of him and use these measures as guides for operating the unit and assessing the contribution of each of its members”.

Features of MBO

1. Management by Objectives is a philosophy or a system, and not merely technique.
2. It emphasizes participative goal setting.
3. It clearly defines each individual responsibility in terms of results.
4. It focuses attention on what must be accomplished goals rather than on how it is to be accomplished.
5. It converts objective needs into personal goals at every level in the organization.
6. It establishes standards or yardsticks (goals) as operation guides and also as basis of performance evaluation.
7. It is a system intentionally directed toward effective and efficient attainment of organizational and personal goals.

The Six Steps in MBO Process



1. Define Organizational Goals: Goals are critical issues to organizational effectiveness, and they serve a number of purposes. Organizations can also have several different kinds of goals, all of which must be appropriately managed.

And a number of different kinds of managers must be involved in setting goals. The goals set by the superiors are preliminary, based on an analysis and judgment as to what can and what should be accomplished by the organization within a certain period.

2. Define Employees Objectives: After determining the organizational goals, the next thing to do is to know the individual's goals or more clearly employees' goals. It is the responsibility of the manager to ask employees about what goals they can accomplish within a specific time period and what resources will they use to achieve the goal. Get specific and clear about what you want to achieve (I want to be a rich), make your goal measurable-quantify what you want (I want to have Rs. 10 lakh), Make your goal achievable within your resources (I work hard as hell), make your goal relevant-is it worthwhile (I want to keep her happy), your goal needs to be timed-set a start and



finish date (One year time)> Also, if needed, then managers and employees can classify the goals from the most important to the least one in order to make the goalachieving process more easily and in favor of the organization.

Continuous Monitoring Performance and Progress: The process of MBO is not just set for providing additional effectiveness to managers across the organization, but it is also equally important for constantly monitoring the progress and performance of the employees. There are certain things stated below that can help managers to monitor performance and progress.

- Checking less-effective or ineffective programs by performing a comparison of performance with already prepared objectives.
- Using ZBB (Zero Based Budgeting)
- Defining short and long term plans and objectives
- Installing efficient and effective controls
- Eventually, composing completely sound structure of the organization with all things at appropriate places such as responsibilities, decision making and so on.



3. Performance Evaluation: MBO is designed to improve performance at all levels of the organization. To ensure this happens, you need to put a comprehensive evaluation system in place. As goals have been defined in a specific, measurable and time-based way, the evaluation aspect of MBO is relatively straightforward. Employees are evaluated on their performance with respect to goal achievement (allowing appropriately for changes in the environment.)

4. Providing Feedback: The psychologically influential factor of MBO is constantly providing feedback to employees regarding their performance and individual goals, so that they can monitor, correct and extra improve their skills and mistakes. Mostly, the feedback is provided in periodic meetings where supervisors and their subordinates review the performance and progress towards achievement of goals. At one point, feedback helps individuals know their weakness. While on the other hand, it also motivates already potential individuals to enhance and develop their performance additionally. This continuous feedback is supplemented by periodic formal appraisal meetings which superiors and subordinates can review progress toward goals, which lead to further feedback.

5. Performance Appraisal: In this step, the worth of employee is examined and judged. Performance appraisals are a regular review of employee performance within organizations. When you reward goal achievers you send a clear message to everyone that goal attainment is valued and that the MBO process is not just an exercise but an essential aspect of performance

appraisal. The importance of fair and accurate assessment of performance highlights why setting measurable goals and clear performance indicators are essential to the MBO system.

Merits/Benefits of MBO

- 1. Goals set up the motivation levels:** If achievable, albeit higher, goals are set in consultation with the subordinates and keeping to mind their strengths and weaknesses, employees get



highly motivated to put in their best.

2. **Result oriented management:** The management focuses the attention of managers on the results to be achieved rather than on activities.
3. **Clarity in organizational structures:** Everyone in an organization knows the purpose and mission of the company and is aware of its objectives. This helps managers to perform better with greater commitment and accountability.
4. **Superior subordinates relationships are reinforced:** Since managers at different levels are consulted and senior managers counsel the juniors, there is greater understanding between them. Communication gaps are eliminated and subordinates develop a sense of involvement which enhances their productivity.



5. **Monitoring is made easy:** It facilitates self evaluation and feedback which improves the efficiency of managers. There is less need for monitoring from above.
6. **Improved planning:** managers at all levels are compelled to think ahead. Interaction among managers results in better ideas and , consequently there will be improved planning and control.
7. **More objective appraisal:** The element of subjectivity can be minimized. There is no scope for personal bias, feeling, sentiments and emotions.
8. **Self check:** MBO is a tool for self control and self direction that helps managers to turn into professionals. There is no need for any advice or memo to an employee from the top management on whether or not he has completed his targets. He can push himself in areas he lags behind by figuring out the possible correcting measures.
9. **Review of objectives:** Business environment is very dynamic. There may be changes in it which may call for review and resetting of objectives, if necessary.



Demerits/Limitations of MBO

1. **Inadequate commitment from top management:** MBO could not take off in many organizations for want of a clear cut policy from the top management. MBO requires a great deal of appreciation and commitment on the part of managers who implement it. They should explain to their subordinates about its operational details and utility. Otherwise, they cannot win them over and that is vital for the successful implementation of MBO.
2. **Goal setters are not given any orientation:** Goal setting is the primary task in MBO. Goal setter should be given a total orientation about corporate goals, planning premises, broad policies of the company and how these, in turn, are likely to affect their own objectives. Any failure to give such guidelines may limit the utility of MBO.
3. **Setting goals is complex process:** Setting realistic and achievable goals for subordinates is not an easy task. If the objectives are not reasonable, behavioural implications are not clearly stated, and ethical behaviour is not given high priority, people will use unethical means to achieve goals.
4. **Emphasis on short-term goals:** MBO centers the accomplishment of mutual set objectives which are more short-term in nature. In a majority of the cases, short-term goals are not well integrated into long-term objectives and consequently, undue emphasis on short-term goals marginalizes the long-term goals.
5. **Inflexibility:** Objectives for every manager or subordinate are set after much interaction, debate, discussion and understanding of individual aspirations. Managers tend to hesitate in changing the objectives worked out in such a detailed effort even when there is a change in corporate goals and planning premises.



6. **Problems of status and authority:** MBO focuses on personal interaction among managers. In reality, organizations are characterized more by people conscious of their authority and status. They seldom like to interact freely with their subordinates, leave alone assessing the latter's strengths and weaknesses.
7. **Lower levels are deprived of freedom and interaction:** If MBO philosophy does not spread right down, it will not be successful. But managers at lower level have little freedom to react to even organizational goals, to speak nothing of the freedom to set their own objectives. In such an environment, setting of objectives jointly is merely a dream.
8. **Limited time horizon:** MBO may be useful in a limited time horizon. In reality, business environment is not so stable that objectives once set will hold good till they are achieved. Objectives get revised frequently in view of hostile and volatile environment.



TYPES OF PLANS

Plans commit individuals, departments, organizations, and the resources of each to specific actions for the future. Effectively designed organizational goals fit into a hierarchy so that the achievement of goals at low levels permits the attainment of high-level goals.

Three major types of plans can help managers achieve their organization's goals: strategic, tactical, and operational. Operational plans lead to the achievement of tactical plans, which in turn lead to the attainment of strategic plans. In addition to these three types of plans, managers should also develop a contingency plan in case their original plans fail.

1. Operational plan: Operational plan covers the day-to-day operations of business such as facilities, inventory management, production plan, supply and distribution etc. An operational plan is like a map that can help to navigate your business towards specific goals. Operational plan is one that a manager uses to accomplish his or her job responsibilities. Supervisors, team leaders develop operational plans to support tactical plans. Operational plans can be a single-use plan or an ongoing plan.

- a) **Single-use plans** apply to activities that do not recur or repeat. A one-time occurrence, such as a special sales program, is a single-use plan because it deals with the who, what, where, how, and how much of an activity. A budget is also a single-use plan because it



predicts sources and amounts of income and how much they are used for a specific project.

b) **Continuing or ongoing plans** are usually made once and retain their value over a period of years while undergoing periodic revisions and updates. The following are examples of ongoing plans:

- **Policies:** Policies are statements of understanding that specify „what can be done or what cannot be done“ to achieve the given objectives. Policies guide the behavior or thinking of people in an organization. They define the framework within which a decision is to be made. Policies provide a broad guideline for managers to follow when dealing with important areas of decision making. For example, address such matters as employee hiring, terminations, performance appraisals, pay increases, and discipline.
- **Procedures:** Procedures outline in detail the method of carrying out a task. A procedure is a set of step-by-step directions that explains how activities or tasks are to be carried out in a given sequence. The employees are trained in organizational procedures. The top management is concerned with the laying down of procedures and the middle and the lower levels with their implementation.

Policies and programs are closely related to each other. A company may have a policy of expansion by 10% every year. To attain this, it has to carefully develop procedures to raise finances, manpower and production.

- **Rules:** A rule is an explicit statement that tells an employee what he or she can and cannot do. Rules are “do” and “don't” statements put into place to promote the safety of employees and the uniform treatment and behavior of employees. Observe these rules: No credit, No smoking, Come in queue etc.
- **Programs:** These specify what is to be done. They reflect goals, policies, procedures and rules to be followed, steps to be taken, resources to be employed and even minor details necessary to execute a task. Every program is supported by budget. Programs may be major or minor based on their purpose, scope and time duration.
- **Budgets:** When plans are expressed in numbers, they become budgets. A budget maybe



expressed in financial terms or any other measurable form such as machine hours., labor hours, or units of production. It can also be expressed in terms of enterprise

activities such as sales budget, advertisement budget, purchases budget, cash budget etc. A budget provides means of controlling the organization's performance. While making budget is a part of planning, controlling employee performance is part of the controlling function of manager. Budgets are prepared for a clearly defined period, say a week, month or year.

2. Tactical plan: A tactical plan is concerned with what the lower level units within each division must do, how they must do it, and who is in charge at each level. Tactics are the means needed to activate a strategy and make it work. Tactical plans are concerned with shorter time frames and narrower scopes than are strategic plans. These plans usually span one year or less because they are considered short-term goals. The tactics needed to achieve the goals defined in a strategic plan. For example, if a company's strategic plan is to become a market leader, its tactical plan might be to double the amount spent on advertisement and marketing. 8/Tactical planning involves:



- Products or services to be added or deleted.
- Size of capital investments required.
- Pricing the products and services to be provided.
- Withdrawing investments from projects. etc.

3. Strategic plan: Strategic planning includes plans made by the top management to pursue long term goals with the resources with likely to be available. Strategic plan is an outline of steps designed with the goals of the entire organization as a whole in mind, rather than with the goals of specific divisions or departments. Strategic planning begins with an organization's mission. Strategic plans look ahead over the next two, three, five, or even more years to move the organization from where it currently is to where it wants to be. Top management's strategic plan for the entire organization becomes the framework and sets dimensions for the lower level planning. Strategic planning involves:

- Formulating a mission for the entire organization.
- Identifying the business that helps to meet a mission.
- Determination of financial requirements.



- Allocating resources effectively. etc.

4. Contingency plan: Contingency planning involves identifying alternative courses of action that can be implemented if and when the original plan proves inadequate because of changing circumstances. Keep in mind that events beyond a manager's control may cause even the most carefully prepared alternative future scenarios to go awry. Unexpected problems and events frequently occur. When they do, managers may need to change their plans. Anticipating change during the planning process is best in case things don't go as expected. Management can then develop alternatives to the existing plan and ready them for use when and if circumstances make these alternatives appropriate.

DEVELOPING A BUSINESS STRATEGY

The process of developing, formulating and implementing the strategy involves the following stages:

1. Develop a vision statement: This statement should describe the future direction of the business and its aims in the medium to long term. It's about describing the organization's purpose for being and its values. Business gurus have debated long and hard about what comes first – the vision, or the mission statement. But, in practice, you could develop both at the same time



Develop a mission statement: Like the vision statement, this defines the organization's purpose, but it also outlines its primary objectives. This focuses on what needs to be done in the short term to realize the long term vision. So, for the vision statement, you may want to answer the question: "Where do we want to be in 5 years?". For the mission statement, you'll want to ask the questions:

- What do we do?
- How do we do it?
- Whom do we do it for?
- What value do we bring?

2. Goals: The first step in the development of any business strategy is the determination of the goal, its desired endpoint. The goal sets the stage for the development of measures and specific actions that the company takes to achieve these goals. So, for instance, the goal might be to "increase market share" or to "improve customer satisfaction."

3. Objectives: Objectives are the measurable element of a strategy. Objectives indicate, specifically, what outcomes are desired. While goals set a broad direction ("increase market share"), objectives will provide the detail that ensures the team knows when it achieves success.



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6. Situation Analysis: Once a goals and objectives are established and the planning team knows what to do, information needs to be gathered so that the decisions are based on solid facts and data. The situation analysis involves a review of information internal to the organization (about employees, sales, customers) as well as external information (about competitors, the industry, the economic climate).

7. SWOT Analysis: A SWOT analysis is a brainstorming process used by strategic planning teams to identify the organization's strengths and weaknesses, which are internal environment; and opportunities and threats, which are external environment. Based on the data gathered during the situation analysis and by brainstorming and prioritizing these items, the team gets a better sense of the most important areas to focus on.

8. Generate Strategy Alternatives: Generic strategy alternatives refer to identifying the alternatives of strategies. After the nature of business is defined, the next task is to focus on the type of strategy alternative, in general, the firm will pursue. Given the information from the environmental scan, the firm should match its strengths to the opportunities that are identified, and at the same time address its weaknesses and external threats.

9. Strategy Variations: The generic strategy alternatives can have a numerous variations every



strategy can have variations as internal or external, related or unrelated, horizontal or vertical and active or passive. For example, if we choose expansion, it can be either internal or external expansions. Internal expansions can be achieved through penetrating existing markets, adding new products. External expansion can be achieved through mergers and acquisitions, developing subcontracts, developing subsidiaries, etc.

10. Strategic Choice: Once the strategy is formulated and variations are evaluated, then the next step of strategist is to choose the exact strategy. Thus strategic choice involves the decision making to select the best strategy among the alternatives which can effectively contribute to the business objectives.

11. Allocation of Resources: The operating strategy of the firm is framed by the resource allocation decisions (budgeting) – such as, „which department is to be sanctioned how much money, materials, manpower and other resources“.

12. Development of Organizational Structure: An appropriate organization structure can demonstrate an effective co-operation and efficient division of labour. The best organization structure is one that fits into the organizational environment. Suitable changes may be initiated in the organization structure to ensure strategic implementation.

13. Formulation of Policies, Plans and Programs: The next step is to see that the resources are well utilized and properly maintained as desired by the organization. This is possible only if there is a perfect monitoring mechanism and correct basis for evaluation of effectiveness. This monitoring mechanism can be built up by suitably formulating its policies, plans and programs.

14. Strategy Implementation: The selected strategy is implemented by means of programs, budgets and procedures. Implementation involves organizing the resources and motivating the staff to



achieving objectives. The implementation of the strategy must be monitored and adjusted made as needed.

15. Strategy Evaluation and Control: Evaluation and control is the final phase of the strategic management process and consists of these steps: 1) Define parameters to be measured, 2) Define target values for those parameters, 3) Perform measurements, 4) Compare measured results to the pre-determined standards and 5) Make necessary corrections.

Decision making is one of the most important functions of the management process. In fact, it is the manager's primary duty to take right decisions at right time. Decision making is defined as „selecting a course of action from among alternatives. At every moment, the management process needs a manager's decision.



Problem solving and decision-making are important skills for business and life. Problem-solving often involves decision-making, and decision-making is especially important for management and leadership. Problem solving is a process in which we perceive and resolve a gap between a present situation and a desired goal, with the path to the goal blocked by known or unknown obstacles. In general, the situation is one not previously encountered, or where at least a specific solution from past experiences is not known. In contrast, decision making is a selection process where one of two or more possible solutions is chosen to reach a desired goal. The steps in both problem solving and decision making are quite similar. In fact, the terms are sometimes used interchangeably.

DECISION MAKING AND PROBLEM SOLVING

Most of the models of problem solving and decision making include at least four phases. 1) an Input phase in which a problem is perceived and an attempt is made to understand the situation or problem; 2) a Processing phase in which alternatives are generated and evaluated and a solution is selected; 3) an Output phase which includes planning for and implementing the solution; and 4) a Review phase in which the solution is evaluated and modifications are made, if necessary. Most researchers describe the problem-solving/decision-making process as beginning with the perception of a gap and ending with the implementation and evaluation of a solution to fill that gap. Each phase of the process includes specific steps to be completed before moving to the next phase.



Steps in Decision Making and Problem Solving

1. Identification of the Problem: This is the first step of decision making and problem solving to identify the problem. A managerial problem may take birth at any level of the organization. But most of the problems go unidentified till they grow big. If it is still neglected they ultimately

flare up into emergency. A good manager predicts well in advance to the generation of the problems and tries to prevent it as he believes that a stitch in time saves nine

1. Gather Complete Information: In the second step, the manager collects the complete information regarding the problem. The information should contain the answers to the following questions:

- Where and when did it generate?.
- What are the causes and triggers?.
- What would be the effects?. Who are most affected?.
- Is it recurring problem or one time problem?.
- Who is responsible for this problem?.\
- Does it belong to programmed decision or non-programmed decision?.

2. Generate Alternative Courses of Action: Third step is concerned with the generation of a set of alternative courses of action. Based on the relevant information, the manager has to identify alternative courses of action that lead to desirable solution. The manager may rely on his own expertise, may talk to his staff or may even conduct a brains storming with experts. New alternatives or options have to be generated through creative thinking.



- 3. Choose the Appropriate Alternative:** The manager at this stage selects the best of the alternatives. Here, the best decision generally infers effectiveness. The best decision means the one that maximizes the factors such as sales, profits, or units produced. In some other cases, the effective decision may be one that minimizes the factors as customer complaints, employee turnover, or operating costs.

- 4. Implement the Course of Action:** After choosing the appropriate alternative, appropriate action plans must be established and implemented. Often implementation suffers resistance from the work forces. So it is suggested that the merits of the decision have to be explained to at least some critical or influencing persons if not all people involved.

- 5. Evaluate results:** The decision making process is not complete until results are evaluated. This evaluation is a form of managerial control. The feedback is very important aspect to

determine if the decision is implemented in the desired manner. If the desired results are not achieved, the process must be renewed to allow for corrective action.

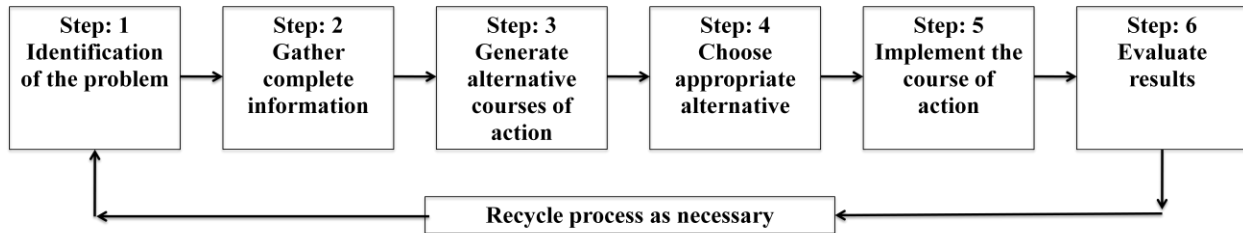


Fig: Steps in decision making and problem solving

PROGRAMMED AND NON-PROGRAMMED DECISIONS

Programmed Decisions:

Decisions related to structured situations (planned or organized situations), where the problem is more or less routine and repetitive in nature are known as programmed decisions. Programmed decisions are those that a manager has encountered and made in the past. The decision the manager made was correct because he/she used the assistance of company policies, computations or a set of decision-making guidelines. For example, problems related to leave are solved by policy relating to leave rules. Employees who take leave according to leave rules are granted leave and those who do not follow the leave rules may not be granted leave. The routine problems may not always be simple.

There may be complex routine problems. For example, production department follows a routine that managers order for inventory when it reaches the re-order point. If there is sudden increase in demand for the product, managers cannot wait for inventory to reach the re-order point to make fresh orders. Orders are placed before this level is reached. Ordering inventory is, thus, a problem of routine nature but ordering inventory before the re-order point is a routine but complex problem.

In either situation, managers depend on pre-established criteria for taking decisions. Various policies, schedules and procedures guide these decisions and, therefore, policies and procedures should be as



clear as possible. Since decisions are based on pre-defined standards, they do not require much of brainstorming and are taken normally by middle and lower-level managers.

Managers do not think of innovative ways to solve the routine problems. Therefore, they can concentrate on important and crucial activities. These decisions also involve some amount of certainty, i.e., outcomes of these decisions are, by and large, known.

Various types of programmed decisions are:

- (1) Organizational decisions
- (2) Operational decisions
- (3) Research decisions, and
- (4) Opportunity decisions.



Non-Programmed Decisions:

These decisions are taken in unstructured situations (unplanned or unorganized situations) and these decisions are new and different from situation to situation. The problems are non-recurring or exceptional in nature. Since they have not occurred before, they require extensive brainstorming. Managers use skills and subjective judgment to solve the problems through scientific analysis and logical reasoning. Non-programmed decisions are unique.

Subjective judgment is based on assessment of the situation. In objective judgment (in case of programmed decisions), past experience forms the basis for decision-making. These decisions involve fair degree of uncertainty since outcomes of decisions are not always known. These decisions are based on partial ignorance as the alternatives and their outcomes cannot be known in advance. They are taken in the context of changing, dynamic environmental conditions.

For example, increase in advertising expenditure, effective salesmanship, upgraded technology, quality controls, brand image and reasonable prices are expected to increase sales and profits. If, in spite of all these, profits are declining, it requires immediate decision-making and such decisions are non-programmed decisions.

These decisions are taken by top-level managers. As we move up the organizational hierarchy, the need for taking non-programmed decisions increases.



Different types of non-programmed decisions are:

- (1) Personal decisions,
- (2) Strategic decisions,
- (3) Crisis intuitive decisions, and
- (4) Problem-solving decisions.

Differences between programmed and non-programmed decisions

	Programmed Decisions	Non-Programmed Decisions
1 . Nature of problem	Structural/Routine/Well defined	Unstructured/Novel/Ill defined
2. Recurrence of problem	Repetitive	Non-repetitive
3. Method of solving	Policies/Standards/Rules	Managerial initiative
4. Judgment	Objective	Subjective
5. Probability of outcome	Some degree of certainty is involved	Uncertain
6. Level of management	Middle/lower level	Top level
7. Types	Organizational/Operational/Research/Opportunity	Personal/Strategic/Crisis intuitive/Problem solving

There is no clear line of demarcation between programmed and non-programmed decisions. Decisions are neither totally programmed nor non-programmed. They are a combination of both and lie on continuum of decision; between totally programmed decisions at one end of the continuum and totally non-programmed decisions at the other end.

BOUNDED RATIONALITY AND INFLUENCE ON DECISION MAKING

Decision making is the most important part of administration and the outcome of decisions depend



on the process that is used in making decisions.

There are two primary models or theories for decision-making: the Rationality model (optimizes) and the Bounded rationality model (satisfices). In the former, a decision-maker attempts to optimize the decision by selecting the best possible alternative. In the latter, rationality of individuals is limited by the information they have, cognitive limitations and time constraints.

Herbert Simon propounded the bounded rationality model to explain why limits exist to rational decision within decision – making environment. He defined decision – making as “the alternative courses of action”. He states that, decision – making pervades the entire organization that is decisions are made at all level of organizations. Hence, he said an organization as structure of decision – makers. According to him, decision is an all – embracing activity subsuming all the administrative functions described as „POCCC“ by Fayol and „POSDCORB“ by Gullick. Bounded rationality is the concept that decision makers (irrespective of their level of intelligence) have to work under the unavoidable constraints.

The Simon’s satisfying model states that firms carry out their operations under bounded rationality and they can only attain a satisfactory level of profit, sales and growth. Simon carried out a research and found that modern businesses don’t have adequate information and they are uncertain about future due to which it is very difficult to optimize their profit, sales and growth.



Bounded rationality

He argued that in real situations people take decisions on the basis of heuristics (a method of teaching to learn by discovering things themselves and learning from their own experiences rather than by telling them things) rather than rule based optimization methods. He argued that decision-making is bounded by the following limitations.

The decision makers (irrespective of their level of intelligence) have to work under three unavoidable constraints.

1. Lack of Information: Lack of information or incomplete information leads to sub optimal decisions as the decision-maker is not fully aware of the pros and cons of a decision due to lack of information. Hence, lack of information creates a boundary and hinders the rational choice of the decision-maker.

2. Limited Intellectual Ability/Cognitive Ability/Mental Ability: The capacity of the human mind to perceive, retain and retrieve complete knowledge and information on past, present and future events is not unlimited. Human mind has only limited capacity to evaluate and process the information that is available. The problem at hand may be so complex that the decision-maker may not be able to comprehend the true nature and complexity of the problem, leading to

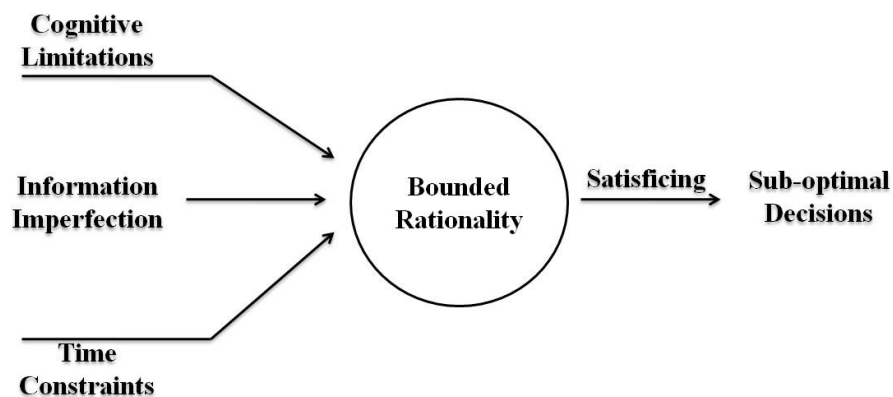


a sub optimal decision. If the problem would have been comprehensible, the decision-maker would have made a rational choice. This creates a boundary on the otherwise rational choice of the decision-maker.

3. Lack of Time to take Decisions: The lack of time may also lead to suboptimal decisions as in this case the decision-maker does not have time to evaluate all the choices and come to a rational choice. On the contrary, lack of time leads to improper and sub optimal decisions, as one does not have the required time to process the information available.

Therefore even individuals who intend to make rational choices/decisions are bound to make satisficing (rather than maximizing or optimizing) choices/decisions in complex situations. These limits (bounds) on rationality also make it nearly impossible to draw up contracts that cover every contingency, necessitating reliance on rules of thumb.

Hence, Bounded rationality (satisficing model) suggests that managers seek alternatives until they find one that is satisfactory, not optimal. The concept suggests that the ability of decision makers to be rational is limited by numerous constraints, such as complexity, time and money, and their cognitive capacity, values, skills, habits, and unconscious reflexes known as bounded rationality.



All the three factors which are illustrated in the diagram will influence the human or organizational decision by bounded rationality leading to „**satisficing decisions**“ as against maximizing decisions (optimizing decisions).



GROUP PROBLEM SOLVING AND DECISION MAKING

A problem may be defined as the difference between the desired situation and actual situation. So, awareness of the problem means understanding the gap between the two (desired and actual) situations. Problem solving is the process of identifying and filling the “gap” or finding a discrepancy and initiating a corrective action. A problem solving is a multi-step procedure in which a group develops a plan to move from an unsatisfactory state to a desired goal. Group problem solving is the process of bringing together stakeholders who through their analytical decision making abilities can influence the outcome of the problem. The use of groups in problem solving is encouraged as groups tend to evaluate diverse solutions and action plans.

The tasks are becoming more interdisciplinary and interdependent; hence modern business demands a comprehensive and integrated perspective of the business. Particularly in this context, group decisions are considered more relevant and worth pursuing. Hence, group problem solving becomes prominent and is necessary to understand how problem can be solved in groups and thereby contribute more effectively to decision-making.

Many key problems are solved in groups or teams in organizations. Though high-level interpersonal skills are important for managers, more important are the capabilities to work closely with others in solving problems and making decisions. There are many executive development programs offered by premier business schools in India and abroad to strengthen problem solving skills in groups.

As a part of leveraging the collective wisdom, the problems are presented to groups and the group members are advised to arrive at decisions which are more rational and feasible. In group decision making, the feedback from more than one individual is evaluated logically and scientifically before an optimum result is identified that is based on an economic view of decision-making wherein people hope to maximize gain and minimize loss.



Group Problem Solving Process

Typically, the team members hold a discussion about the problem on hand and explore all the ways and means arise out of business or social situations and develop the ability to generate a

wide variety of potential solutions to a given problem. The below process involves group problem solving.

1. Define the Problem: Define the problem by considering the three elements shared by every problem: the current undesirable situation, the goal or more desirable situation, and obstacles in the way. At this stage, group members share what they know about the current situation, without proposing solutions or evaluating the information. Here are some good questions to ask during this stage: What is the current difficulty? How did we come to know that the difficulty exists? Who/what is involved? Why is it meaningful/urgent/important? What have the effects been so far? What, if any, elements of the difficulty require clarification? At the end of this stage, the group should be able to compose a single sentence that summarizes the problem called a problem statement.

2. Analyze the Problem: During this step a group should analyze the problem and the group's relationship to the problem. Whereas the first step involved exploring the "what" related to the problem, this step focuses on the "why." At this stage, group members can discuss the potential causes of the difficulty.



3. Develop Alternative Solutions: During this step, group members generate possible solutions to the problem. Again, solutions should not be evaluated at this point, only proposed and clarified. The question should be what *could* we do to address this problem, not what *should* we do to address it.

4. Evaluate All Solutions: During this step, solutions can be critically evaluated based on their credibility, completeness, and worth. Solutions can be evaluated based on how well they fit with the group's charge and the abilities of the group. To do this, group members may ask, "Does this solution live up to the original purpose or mission of the group?" and "Can the solution actually be implemented with our current resources and connections?" and "How will this solution be supported, funded, enforced, and assessed?"

5. Implement and Assess the Solution: Implementing the solution requires some advanced planning, and it should not be rushed unless the group is operating under strict time restraints or



delay may lead to some kind of harm. Although some solutions can be implemented immediately, others may take days, months, or years.

Methods of Group Problem Solving

- 1) **Brainstorming:** Before groups can make a decision, they need to generate possible solutions to their problem. The most commonly used method is brainstorming. Brainstorming is a creative art of generating the greatest number of ideas in the shortest possible time. Here, members in the group are encouraged to present their ideas that can contribute to problem solving. It is a popular method of finding alternatives to real life problems and for creativity training. The group size is restricted to five to seven members. Everyone is given reasonable time and opportunity to present their ideas or alternative solutions. The purpose of brainstorming is to generate as many ideas as possible and explore different dimensions of the given problem. The members can combine some of the ideas and offer an improved version of their earlier ideas.
- 2) **Nominal Group Technique:** The Nominal Group Technique is a form of brainstorming, wherein a structured meeting is held among the group members where they are required to find solutions to the problem identified for the discussion. The objective of the nominal group technique is to resolve the opinion conflicts among the group members by enabling each individual to pen down his/her thoughts about the problem and later discuss it with the entire group to reach the consensus solution. Generally, the nominal group training is comprised of the following steps:
 1. First of all, the facilitator welcomes all the participants and then briefs about the problem requiring decision.
 2. The participants are given time to pen down their ideas that come to their minds in reference to the problem being discussed. During this period, each member writes his/her ideas silently without discussing anything with each other.
 3. Once all the members have written, their ideas are required to share them in front of all



the group members. At this stage, the facilitator chalks down the ideas of each group member on the flip chart, thereby giving all the members equal opportunity to share what they feel.

4. Once the key points are written on the chart, the members are asked to discuss the points which they feel requires an explanation. Each member explains his/her mind to the other members and in the meanwhile, the facilitator tries to maintain the discussion as neutral as possible, thereby avoiding the criticism and judgment.
5. Once all points are explained, the members are asked to give vote or rank various ideas by prioritizing these in relation to the basic problem, for which the meeting is held.

If the group does not reach a consensus decision, then again the ranks are assigned to the recorded ideas and this process continues till the final decision is arrived.

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CREATIVITY AND INNOVATION IN MANAGERIAL WORK

The growth and survival of the business in the dynamic environment as of today depends upon the development of new products. Organizations must be always in the lookout for new opportunities and exploiting them by creating new products and services. Therefore, it is needless to say that new product development holds the key for the survival of an organization. New products do not come about on their own. They are the result of the ingenuity of creativity people in the organization. As such, it is obvious that new product development is the function of organizational creativity. In other words, it depends upon how creative an organization is in respect of new ideas. It may be understood that any organization can be as creative as its people.

Having understood the importance of creativity in the organizational context, let us understand the meaning and process of creativity.

Creativity and Innovation

Creativity is an essential part of problem solving and decision making. To be creative is to see new relationships and produce imaginative solutions. Creativity can be defined simply as the process of developing novel ideas that can be put into action. By emphasizing the application of ideas, creativity is closely linked to innovation. To be innovative, a person must produce a new product, service, process, or procedure. Innovation can be regarded as the commercialization or implementation of creative ideas.



Creativity involves a departure from conventional thinking to non-conventional thinking. A close examination of many products enables us to understand how apparently unrelated things are related to produce a new product. The ubiquitous wet grinder found in many of the kitchens may be cited as a best example where a relationship is established between the electric motor and the conventional stone used in the Indian homes for grinding purposes since times immemorial. Similar is the case with the electric bulb and the lens that are combined to develop the overhead projector used in the classrooms. The same logic holds good for many products that we see around.

Though, at times creativity and innovation are used interchangeably, it is appropriate to know that both are different. Creativity and innovation go hand in hand. While creativity is the generation of a new idea, innovation is the translation of such an idea into a product, service or method of production. According to Lawrence B. Mohr **“creativity implies bringing something new into being while innovation implies bringing something new into use”**. According to Rosabeth Kanter, **“Innovation is the generation, acceptance and implementation of new ideas, processes, products or services”**. Such a distinction is necessary because the skills required to generate new ideas (creativity) are not the same as those required to make the ideas take the shape of products or services. Since both creativity and innovation are two different functions, organizations need people good at both the functions. Further, creativity alone does not contribute for organizational effectiveness unless the creative ideas can in some way be used



or implemented. A new idea, however good it is, must be capable of implementation and must actually be implemented for the organization to benefit from it.

Conditions Necessary for Creativity

Certain individual and organizational conditions are necessary for, or at least enhance the production of, creative ideas. The most consistent of these conditions are described here. Creativity takes place when these components join together.

1. **Expertise:** Expertise refers to the necessary knowledge/skills in a particular field to put facts together. The more ideas floating around in your mind, the more likely you are to combine them in some useful way.
2. **Creative Thinking Skills:** Thinking how to make solutions differently leads to creativity. If you know how to keep digging for alternatives and how to avoid getting stuck in the status quo, your chances of being creative multiply. Preserving, or sticking with a problem to a conclusion, is essential for finding creative solution. A few rest breaks to gain a fresh perspective may be helpful, but the creative person keeps coming back until a solution emerges.
3. **Internal Motivation:** The right type of motivation is the third essential ingredient for creative thought. A fascination with the task or passion for the task is more important than searching for external rewards.
4. **Environmental Need:** In addition to the internal conditions that foster creativity, the factors outside the person have a significant effect. An environmental need must stimulate the setting of a goal, which is another way of saying. "Necessity is the mother of invention".
5. **Conflict and Tension:** Enough conflict and tension to put people on edge also foster creativity. A practical way to create this conflict is for people to challenge each other's thinking, such as saying, "Offering construction workers rents as temporary housing won't attract enough of them



to come down here. Let"s try harder for a housing solution."

6. **Encouragement from Others:** Another external factor in creativity is encouragement, including a permissive atmosphere that welcomes new ideas. A manager who encourages imaginative and original thinking, and does not punish people for making honest mistakes, is likely to receive creative ideas form employees.

The Creativity Process

In business jargon, creative people can think outside of the box, or get beyond the usual constraints when solving problems. Yet another way of characterizing creative thinkers is that they break the rules. As such, creative people are often mavericks. They are unconventional and off-the-wall. A key part of being creative is to think laterally. Lateral thinking spreads out to find many alternative solutions to a problem. Lateral thinking is thus divergent, while vertical thinking is convergent. Creative people think divergently and they can expand the number of alternatives to a problem, thus moving away from a single solution. Let us acquaint with the process of creativity.

1. **Idea generation:** The individual selects a problem to work on or more likely become aware that a problem or need exists. This is the starting point for the new product development indeed. This refers to the awareness about the „gaps“ in the market.
2. **Preparation:** The individual becomes obsessed with the idea/ problem, recalling and collecting information that seems relevant and dreaming up hypothesis without evaluating them. Openness to experience, tolerance for ambiguity and willingness and courage to redefine the existing concepts, beliefs are the important psychological attributes required at the stage.



3. **Incubation:** After assembling the available information, the individual relaxes and the subconscious mind becomes active. In this not much understood but crucial step, the individual often appears to be idle or day dreaming, but the subconscious is in fact trying to arrange the facts into a pattern. Psychological freedom and safety are important at this stage.
4. **Illumination:** This is something which we experience quite often. Often, when least expected – while eating, falling asleep or walking- the new integrative idea will flash into the individual's mind. Such insights must be recorded quickly, because the conscious mind may forget them in the course of other activities.
5. **Verification and Application:** The individual sets out to prove by logic or experiment that the idea can solve the problem and can be implemented. Tenacity may be required at this



point. It is at this state the individual switches over to the logical, analytical or convergent thinking. The practical implications are examined what is known as feasibility assessment- both technical and economic for commercialization of the idea/concept. This is also known as assessing the scalability.

Organizational Programs for Improving Creativity and Innovation

1. **Creativity Training:** A standard approach to enhancing individual and organizational creativity is to offer creativity training to many workers throughout the organization. Much of creativity training encompasses the ideas such as learning to overcome traditional thinking and engaging in some type of brainstorming.
2. **Brainstorming:** the best-known method of improving creativity is brainstorming. This technique is a method of problem solving carried out by a group. Brainstorming is standard practice for solving real problems facing a company, and is also a creative training technique. Group members spontaneously generate numerous solutions to a problem, without being discouraged or controlled. By brainstorming, people improve their ability to think creatively. Brainstorming produces many ideas; it is not a technique for working out details during the first meeting. Some types of businesses problems are well suited to brainstorming, such as identifying ways to attract new customers and making cost-cutting suggestions, etc.
3. **Systematically Gathering Ideas:** The major new thrust in developing an innovative organizations is to systematically gather ideas from people inside and outside the firm.

Appropriate Physical Surroundings: creativity is facilitated when the physical environment allows for the flow of ideas, including the room with natural lighting and