

---

---

**• UNIT-II**

---

## **PLANNING AND DECISION MAKING**

---

### **2 Planning & Decision Making**

#### **2.1 General Framework for Planning**

A Framework Plan is a high-level and broad strategy that will:

- Set out the future vision for the area
- Guide sustainable future growth and development over the next 30 years
- Identify the steps needed to manage growth
- Define key projects and infrastructure required to support growth
- Provide an improved and more certain environment for making both public and private investment decisions.

The Framework Plan will be a high-level planning tool to coordinate, guide and inform the preparation and consideration of future, more detailed local plans and planning permit applications. A key aim of this planning is to create diverse, compact and well-connected communities that are affordable and rich in local jobs, transport access, services and culture.

## Nature of Planning

The nature of planning reveals the following features:

1. *Goal oriented:* Planning centres 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. *Intellectually a demanding 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, foresight, 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 of them.
4. *Basis for other functions:* Since planning is the first function of the manager, the results of planning form the basis for all other managerial functions.
5. *All pervasive in nature:* All managers have to plan. Planning is essential for all organisations—small or big, domestic or foreign, profit-making or service oriented. Managers at the top, middle and lower levels in any organisation 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 costs and quickly. So all plans should be cost effective and worth their investments. The benefits from a plan should be more than its costs.

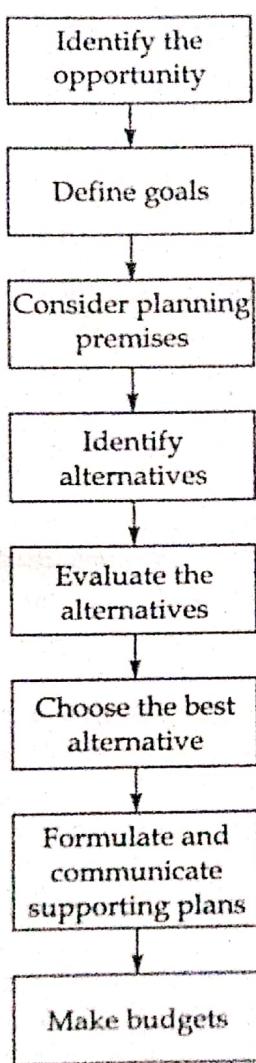
## Importance of Planning

The main purpose of planning is to minimise the uncertainty that comes with future. It is intended to clarify the implications of managerial actions or decisions. Planning done, organisations are bound to succeed in terms of increased sales, customer growth, reduced operating costs, growth and expansion.

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. *Minimises uncertainty and, thereby, 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, organisations keep a list of supporting plans, policies, procedures, programmes, strategies, rules and budgets to guide their people towards the goals.
4. *Ensures 'order':* Organisations walk into chaos if they do not 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. Despite detailed planning sometimes there can be an unexpected shortage of resources. Organisations keep a portion of their resources to cushion such crises.
6. *Facilitates control:* Plan is a means of control. The actual performance of the organisation and also its members can be evaluated based on plans.
7. *Promotes innovation and creativity:* Progressive organisations involve their staff in organisational 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.

## Steps in Planning

1. *Identify the opportunity:* Real planning starts with knowing the availability of different opportunities. For each opportunity, assess carefully the size 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. *Define goals:* Once the opportunity is identified, define the goals you want to achieve for the entire organisation. Goals, in turn, will throw light on what objectives, strategies, policies, procedures, rules, budgets and programmes you should follow.
3. *Consider the planning premises:* Planning premises refers to the assumptions about the environment in which plans have to be carried out. Correct assumptions about markets, competition, 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.  
Premises may be *internal or external* to the firm. Internal premises refer to the assumptions about the firm's finances, employees, technology-in-use etc. External premises are assumptions about competitors, lenders, changes in technology, government policies and procedures.



**FIGURE 3.1** Steps in planning

Premises may be *controllable or non-controllable*. Managers can exercise control over internal premises but not over the external ones. For instance, a firm can decide about the wages and salaries of its employees but not on the taxes payable. The government determines taxes and the firm has just to follow the prevailing tax rates.

Premises may be *tangible or non-tangible*. Tangible premises refer to what can be quantified as sales, number of employees etc. Intangible premises refer to what cannot be quantified such as employee morale or the goodwill of the business.

4. *Identify alternatives:* There may be more than one alternative to reach a goal or objective. Search for and identify all the available alternatives. Work out the requirement of resources under each alternative. In most cases, finding alternatives may be easier. Shortlisting the promising ones is a relatively complex task.
5. *Evaluate the alternatives:* Examine each alternative in relation to the other and identify the merits and demerits of each. One alternative may look very profitable but it may involve a large capital investment and also take longtime to return the original investment. It may also involve a high degree of risk. There

## PRINCIPALS OF MANAGEMENT

may be some good alternatives which cannot be considered even though they fit into the long term interests of the organisation.

Evaluation of given alternatives is a complicated process as the business environment is full of uncertainties. Government policy may change, technology may change, adequate funds may not be available etc. The alternatives have to be evaluated in the light of many variables and constraints. There are some modern techniques such as operations research and computing which can be gainfully employed in evaluating the given alternatives.

6. *Choose the best alternative:* The best alternative is decided on a given situation. Normally it involves optimum utilisation of resources. At times, the number of best alternatives could be more than one. To eliminate errors in judgement, the manager may even decide to follow more alternatives than confining himself to one.
7. *Formulate and communicate supporting plans:* Supporting plans are also called derivative plans. These are derived from the best alternative chosen. When a company decides to launch a new product it also has to formulate several supporting plans for recruiting and training more staff, mobilise more infrastructure and working capital for advertising and insurance. Managers have to communicate these supporting plans to the employees concerned so that they can be involved in their implementation.
8. *Make budgets:* Budget is "numerical expression" of a plan. Budgets can be formulated for the entire organisation and also for each department or programme. When cash, sales, production and other budgets are integrated, it results in an overall budget for the entire organisation, popularly known as Master Budget or Integrated budget. Budgets set standards for measuring and controlling the actual performance of the employees in an organisation.

## 2.3 Types of Plans

Organizations should develop a better understanding of how to approach business planning. The following sections expand on the topic and the four types of planning.

### Why Plan?

"Planning is about managing resources and priorities in an organized way," Berry says. "Management is related to leadership, and it's related to productivity."

If companies improve how they plan, managing and leadership will also improve. The following steps can help businesses plan better.

- ⇒ **Devise a Plan:** Write important details down and focus on strengths, what matters, what people are most important to you and what you can do for them. This will help you communicate your vision to your employees.
- ⇒ **Define Success:** How do you see your business in several years? Define long-term goals and be specific. Establish milestones for certain goals and who will achieve the goals. Look at what drives your business; it may be presentations, conversions, page views or something else. Then establish a review schedule and re-examine your long-term goals as necessary.
- ⇒ **Put It in Motion:** Track and analyze numbers to help you manage the work behind the numbers. You'll be better able to make changes — or to develop new plans — that will help you manage better.

### Classification on the Basis of Levels in the Organization

#### 1. Strategic Plans:

Strategic plans are made to achieve the overall organizational goals. They achieve strategic goals through effective allocation of resources over different functional

product areas. They match the organizational strengths and weaknesses with the environmental opportunities and threats. They are comprehensive and general in nature. They are made for all functional areas of business. They are made by the top-level managers in consultation with board members and middle-level managers and generally relate to a period of more than 5 years.

## 2. Tactical Plans:

Tactical plans are the means to support and implement strategic plans. They are made to achieve tactical goals of the organization. They are related to departmental goals of the enterprise. These plans are made by middle-level managers in consultation with lower-level managers and normally relate to intermediate period of 1 to 5 years. While strategic plans are general in nature, these plans are more specific and precise.

## 3. Operational Plans:

Operational plans support the tactical plans. They are made to achieve operational goals of the enterprise. These plans are highly specific and determine what different sections of the organization need to perform. While resources are allocated in strategic plans, their efficient use to achieve overall organizational goals is ensured by operational plans.

These plans are made by lower-level managers in consultation with middle-level managers and relate to short periods of time of less than one year, say some weeks, months or even days. Different single-use and standing plans are made in operational planning to achieve the overall organization goals. Plans to meet the delivery schedules, adjust the production schedules, budget the costs etc. are the common activities performed in operational planning.

	Strategic Plans	Tactical Plans	Operational Plans
Focus of Attention	Strategic Goals	Tactical Goals	Operational Goals
Levels of Managers	They are framed by top level managers	They are framed by Middle level managers	They are framed by Lower level managers
Time Frame	They are prepared for a long period of time, normally more than 5 Years	They are prepared for Intermediate period of time, ranging between 1 Year to 5 Years	They are prepared for a period of less than 1 Year.
Scope	They relate to Overall organizational goals.	They relate to Departmental goals.	They relate to goals for sub units of Each Department.
Environment	They relates Organization with the External Environment	They Focus on both External & Internal Environment	They Focus on effective uses of resources, thus, focusing the Internal Environments.

## I. Classification on the Basis of Use:

**On the basis of use, plans can be categorized as follows:**

**1. Single-Use Plans** - Single use plans are made to serve a specific objective. They cease to exist once the objective is achieved. They are, thus, short lived plans made for nonrecurring activities. For example, if company wants to install a machine, it has to plan its purchase; whether it wants to buy a new machine or a second hand machine, whether it wants to buy or acquire it on lease. Various alternative courses of action will be guided by their respective returns and costs and once the machine is acquired, the plan does not exist anymore. Single use plans are intended to achieve a particular objective which is not likely to be repeated in future. These are meant to deal with problems which are non-repetitive and distinct in nature.

Different types of single use plans are:

- a) Programmes
- b) Budgets
- c) Strategies and
- d) Projects

**a) Programmes:** Programme is a sequence of activities where each sequence is timed (time taken to complete each step is determined) to successfully achieve the overall objectives. According to Terry and Franklin, programme is “a comprehensive plan that includes future use of different resources in an integrated pattern and establishes a sequence of required actions and time schedules for each in order to achieve stated objectives.”

Programmes are single use plans made for a specific action. It is made to achieve a specific objective that represents a series or sequence of steps, time required to accomplish each step and resources allocated to accomplish each step. Programme is a sequence of activities carried to implement a policy or accomplish an objective.

Each programme has specific objectives, policies, procedures, methods and budgets to support its expenses.

**Steps in making a programme:** A programme can be made in six steps:

- ⇒ Divide the total work into parts: As the first step in making a programme, total work load is determined and divided into parts.
- ⇒ Develop the sequence of various parts: After the steps are determined, they are arranged in a sequential order and relationship amongst the steps is established to facilitate coordination.
- ⇒ Determine the responsibility for each part: The divided parts or steps are assigned to people according to their skills and abilities. This helps in determining who will do what and also fixes their responsibility.
- ⇒ Determine how each part will be completed and what resources are necessary: It determines the way each step will be accomplished and arranges resources (human and non-human) for their completion.

- ⇒ Determine the time required for completing each part: To ensure that the programme is completed within the time schedule, time required to accomplish each part is determined. Delay in completion increases financial and non-financial costs and, therefore, it is necessary to determine the time to complete the overall programme and each step of the programme.
- ⇒ Develop a schedule for implementing each step: A schedule or time table for implementing each step in programme is determined to ensure optimum utilisation of resources allocated over different steps of the programme.

**Types of programmes:** Programmes can be of two types:

- **Major programme:** It is the main programme designed to achieve a specific objective, for example, setting up a plant and machinery or modernisation of an existing unit.
- **Minor programme:** It is a sub-plan designed to achieve the major programme. For setting a new plant and machinery, minor programmes are made to analyse the sources from where the machinery can be purchased, arranging funds from various sources, arranging for installation, air conditioning plant for the machine, training people to work on the machine, arranging for people to work over-time (if the need be), etc.

#### b) Budget:

**Meaning:** Budgets are plans that specify resources for specific activities in a given period of time. Managers make decisions through budgets to allocate resources over various courses of action. It is a statement of inflow and outflow of financial resources spread over a period of time. The time period for which budget is prepared is known as planning horizon. A budget may be prepared for one year, six months, or even one month depending on the nature of business activities. The time period is generally divided into shorter periods known as sub-periods. A budget prepares the expected inflows and outflows of men, material, output etc. expressed in monetary terms.

Budget is “a plan for income or outgo, or both, of money, personnel, purchased items, sales items or any other entity about which the manager believes determining the future course of action will assist in managerial efforts”.

A budget also acts as a controlling device. It plans the organizational performance and ensures that actual performance is in conformity with planned performance. The basic element of budget is the planning horizon; it refers to the time period covered by the budget. There may be long-term or short-term budgets depending on the nature of enterprise. For enterprises operating in a stable environment, the planning period could be long, say one year while for concerns which are affected by seasonal variations, a six monthly or a quarterly budget may suffice.

### III. Classification on the Basis of Functional Areas:

These plans are more specific and relate to a particular area of operation. They develop guidelines to action in a specific functional area. They usually set short-term objectives for each functional area and define the means to achieve the objectives within the given time frame.

#### Features of Functional Plans:

*Functional plans have the following features:*

1. They aim to achieve short-term objectives of functional areas and are, therefore, made for a short period of time, usually less than one year.
2. They look into immediate future of the functional areas. They are designed by operating managers.
3. They are specific plans which define the area of operating personnel.

“A functional plan describes the specific actions to be taken in the immediate future by people responsible for that particular functional area. It usually sets forth short-term objectives, the actions to be taken to achieve those objectives, and a time frame for the accomplishment of each action.”

#### a) Production plans:

“Production plans consist of planning and overseeing the process of converting inputs into value – enhanced output.” The areas of production plans are: production system, efficiency of operations, location of company facilities, design of company facilities, and day-to-day process planning.

These plans set the targets of production. They are designed according to production policy of business organizations. Firms may produce throughout the year, pile inventories and sell them during peak season or produce only during the peak season of demand. In the latter case, they can diversify into other areas during slack season to keep their plant and machinery occupied.

#### b) Marketing plans:

Marketing plans are designed by marketing managers. They “tell sales and marketing personnel who will sell what, where, when, to whom, in what quantity and how.” They help to sell the products and develop new products to increase the share of market; to plan for sale in cash or credit; if it decides to sell on credit, to determine the credit terms and credit policies for the sales department. Production plans and marketing plans aim to satisfy consumer needs and are inter-dependent. The production department produces according to expected sale and sales department sells what is produced.

#### c) Financial plans:

Finance managers prepare financial plans for raising and utilizing /allocating financial resources effectively. These plans meet the fixed and working capital requirements of the firm. They plan for financial cuts during recessionary economic conditions and raising additional funds during boom.

## **Levels of Planning**

Planning is ubiquitous—that is, it exists in the entire organisation. All levels in the organisation carry out the planning function, but in varying degrees. In other words, the scope and timescale of planning varies. Planning commences at the strategic or top level of the management. *Strategic planning* commences with defining the purpose or mission of the organisation, establishing strategic priorities and formulating major policies. Strategic planning becomes the basis for successive levels of planning namely, *tactical planning* (at the middle level) and *operational planning* (at the lower level). These are discussed in detail here.

**(a) Strategic planning** Strategic planning includes plans made by the top management to pursue long term goals with the resources likely to be available. It involves:

- Formulating a mission for the entire organisation
- Identifying the business that helps to meet a mission
- Determination of financial requirements
- Working out authority relationships in terms of organisation structure
- Allocating resources effectively

It has a time horizon of five years or more. The chief executive or chairman, members of the board, managing directors, divisional heads (these constitute the top level management) take part in strategic planning.

**(b) Tactical Planning** Tactical planning specifies how the mission of an organisation can be accomplished. It involves the decisions in respect of:

- Products or services to be added or deleted
- Size of capital investments required

- Pricing the products and services to be provided
- Facilities, methods and systems necessary
- Withdrawing investments from, or closing down operations of unprofitable departments or products or services.

Tactical planning has a time horizon of six months to two years. It is done by the *middle-level management*, which comprises functional managers, product line managers and department heads. Tactical planning is also called *intermediate planning*.

**(c) Operational Planning** Operational planning works out the basic details of how the specific tasks can be accomplished with the available resources. It involves decisions in respect of

- Best suitable production methods
- Effective marketing plans
- Organisation structure in terms of customer, product or region etc.
- Facilities required in the office, factory, sales outlets etc

The time horizon for operational planning is between one week to one month. Operational planning is carried out by lower-level management comprising unit managers, foremen, line supervisors etc.

#### **Limitations of Planning**

## DECISION MAKING DEFINED

Decision making is defined as *selecting a course of action from among alternatives*. It is the core of planning. The organisations will have different plans only when decisions are taken in terms of commitment of resources. The main job of a manager is taking decisions on what to do, when to do, who to do, how to do, where to do and answering all other such questions. Decisions give direction to organisations.

*Decide* means arriving at a solution that ends uncertainty or dispute. Decide originated from Latin word *decidere* which means to cut off.

Decision making is an integral part of the job of a manager or leader. It is the essence of the job description. A competitive compensation or salary package is paid to the managers because they have to take decisions. There are number of cases where bad decisions and bad decision making are considered as the root cause for the collapse.

The decisions are made every time and everywhere. The decision making is a discipline that entails the following:

1. *Realise*: when and why decisions are needed.
2. *Declare the decision*: Announce what the decision is and answer all questions such as who, what, how, where, etc.
3. *Generate the alternatives*: generate a complete set of alternatives, gather the information to identify the possibilities and probabilities, and ultimately make a choice that best fits the organisational values.
4. *Commit resources and act*: Once resources are committed, it becomes irreversible. So lot of attention is required in this stage.

Seldom all these four are carried out consistently or consistently well. If these are done well as and when required, most problems are solved in time. In some other cases, mere decisions do not yield results. How well the decisions are well-implemented matters a lot for quality results.

## **STEPS IN DECISION MAKING**

As discussed earlier, decision making is a rational process comprising certain defined steps, which are discussed as follows:

**Identification of decision problem** In most of the cases, the problems are difficult to be identified and formulate the decision problem. Problems may be related to any area of management like planning,

organising, directing and control. Problem may relate to the sectors, products or people. How the problems are perceived also indicates the degree of managerial effectiveness.

**Diagnosis and definition of the decision problem** On discovering the decision problem, diagnose and define it in clear terms so as to identify its scope and ramifications. To enable the different functional managers to tackle it effectively, break it down to sub-problems.

**Specification of objectives** Objectives are the end points towards which decisions are directed. Objectives may be quantitative or qualitative. They may be specific, multiple, flexible attainable and realistic. They serve as yardsticks for measuring and evaluating the outcomes. They can also be used for implementing the decisions and for assessing its effectiveness.

**Collection of relevant information** To collect the relevant information, the manager has to design the information system. The information may be quantitative or qualitative, internal or external, historical or projected. The manager has to consider several issues such as availability, adequacy, reliability, timeliness, cost and relevance, etc., while collecting the information.

**Search for 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 brain storming with experts. New alternatives or options have to be generated through creative thinking.

**Evaluation of alternative courses of action** Once the list of alternatives is available, it is necessary to assess, against an objective criteria, the merits and demerits of each alternative. This is a complex process that may call for statistical tools.

**Making the final choice** Against the predetermined objective criteria, progressively eliminate the alternatives to narrow down best course of action. The managers have to ensure that they will not be any bias, favouritism in this process. There should not be any external or internal influence on selection of final course of action. The manager is expected to apply his judgemental skills in making the final choice considering the objectives and values of the organisation, the feasibility, acceptability of the decision, relative simplicity of the likely outcomes, and so on. It is a matter of trade-off between risks and returns, costs and benefits, both quantitative and qualitative issues. The manager optimises utility function in the context of his responsibility as a manager. Make use of organisational policies, strategies, previous decisions, committed resources, interpersonal and human factors as guiding factors for effective decision making.

**Implementation of the decision** This is the final step in the decision making process. Here the decisions are operationalised; putting them into action is the essence of the whole managerial effectiveness. The decisions can be implemented once necessary structural, administrative and logistic arrangements are made. Adequate authority has to be delegated for operationalising the decisions taken. Also, commit the financial and other resources required. Take the staff into confidence; provide them an environment that is conducive to empower them for implementation. Establish adequate controls to ensure that decisions are implemented in a faithful but flexible manner.

## TECHNIQUES OF DECISION MAKING

Managers solve the decisions instantaneously, consciously or otherwise, particularly if the decisions are of routine and repetitive nature through some established habits or routines. The experience and internalised learning through training programmes enhance the decision making capabilities of the managers.

## Quick Decision Making, the Essence of Management

Can you find some thing common between Lakshmi Mittal and Stephen Schwarzman? Their track record in Mergers and Acquisitions (M&As). Mr Stephen Schwarzman built a world renowned buyout business through PE firm Blackstone while Mr Mittal created worlds biggest steel company with a string of acquisitions. As chairmen of the Jury for the Economic Times Awards for Corporate Excellence, both men have had the distinction of completing their task in record time. What normally takes for hours together and a minimum of three hours, these two chairmen had the distinction of completing in two hours. Mr Schwarzmans style as chairman was marked by trademark efficiency. Purposeful discussions that focused on the strengths and weaknesses of each candidate, quick thinking and decision making were the order of the day.

Different jury chairmen have preferred different approaches to the task. Mr Mittal had the jury members do much of the homework before the meeting. This meant that the discussion was confined to an already prepared shortlist. Mr Schwarzman\* kept the discussion tightly focused, with a no-nonsense and relaxed style, letting the jury members speak about the respective candidates and weighing only the suggestions at important junctures.

\*Mr Stephen Schwarzman is the fourth Global CEO to chair the jury deliberations after L N Mittal, Indra Nooyi and Olli-Pekka Kalsvuo during 2011

They respond to problems effectively and efficiently and this becomes a habit for them.

The best patterns that evolve over a period of time are codified and developed into certain Standard Operating Procedures (SOPs) which can be taken as Bible for decision making. Managers who cannot solve problems instantaneously can refer to the SOP and find solution from the procedures, policies, systems etc.

Organisational structure also is another source of solution for many problems such as to whom to accountable or report, whom to involve in the decisions, whom to contact for resources and information etc. Organisational structure is web of authority and activity relationships.

There are many other problems which can be solved only through some advanced tools and these tools are discussed here.

**Linear Programming** It is an optimising function under given resources and constraints. The objective function is either to maximize the utility such as revenue or minimise the disutility such as costs. The technique is useful under conditions of certainty. It is mathematical technique for determining the optimal allocation of resources and achieving the specified objective when there are alternative uses of resources like money, manpower, materials, machines etc. The objective in resource allocation may be minimising costs or maximising the profit.

**Probability Decision Theory** Where the detail of probability in respect of different outcomes is available, this theory can be made use of. Pay-off matrices and decision trees are constructed to represent the variables. Decision tree is an aid to decision making in uncertain conditions. It sets out alternative courses of action along with the financial consequences of each alternative, and assigns subjective probabilities to the likelihood of future events happening. For instance, a firm thinking of opening a new showroom, the success of the business will depend upon the consumer spending (which in turn is influence by boom or recessionary conditions in the economy) would have a decision tree.

**Game Theory** It is a useful tool for taking decisions under conditions of competitive conflict. Here, the adversaries in the conflict are supposed to be involved in a game of gaining while others lose totally or partially. There are many games such as two-person, three-person or n-person games as also zero-sum and non-zero-sum games.

**Queuing Theory** Where it is necessary to find solutions to waiting line problems for staff, equipment or services under conditions of irregular or uncertain demand. It aims at finding optimum volume of facilities to minimise the waiting period, investments in infrastructural facilities. All those who provide public utility services such as public transport systems, hospitals, big departmental stores etc. use this theory extensively.

**Simulation** Simulation is a quantitative procedure that explains how a process is developed and a series of organised trial and error experiments are conducted to predict the behaviour of the process over time. To know how the real process would react to certain changes, these changes are incorporated into the model and simulate the reaction of the real process. For instance, take the case of the design of an aeroplane. The designer can build a scale model and observe its behaviour in wind tunnel. In simulation, mathematical models are run on trial data to simulate the behaviour of the system.

**Networking Techniques** Networking techniques are used for planning, scheduling and controlling different projects of different magnitude and complexity levels. They are so simple that they can be applied in our day to day life to plan our schedule also. They are Programme Evaluation Review Technique (PERT) and Critical Path Method (CPM). Project managers of construction works, or software assignments, for instance, find these techniques immensely useful.

Complex projects involve considerable cost and time and to ensure that these are completed as per schedule and without time over-runs or cost over-runs, these PERT and CPM are deployed. The main purpose is to minimise both time and cost by working out a critical path which consumes otherwise maximum resources in the normal course. PERT and CPM are the network techniques representing the logical sequence in detail diagrammatically among the activities required for completing of a project. The deployment of resources also can be scheduled and where the excess materials, machinery or men are available at one point, they can be moved to places of requirement with the help of these techniques.

**Creative Techniques** All problems are not of routine nature. Some problems are non-routine or novel and demand creative thinking for solving. Creativity refers to the ability to generate new ideas and new ways of doing things. Innovation is the outcome of creativity. Brainstorming is one of the creative techniques where on being given a problem, experts get involved to generate maximum number of alternative solutions for a given problem. Whether the solution suggested is feasible or not, is not the focus at the brain storming stage. Generating as many alternatives as possible is the main focus during brain storming (discussed later in this chapter). Experts are assembled in a group and encouraged to throw up all the solutions, including wild or impractical, to a given problem that may lead to creative solution.

**Participative Techniques** Involving the employees in taking decisions and even routine matters of management is the sign of democracy and proactive managers widely believe in this approach to solve the problems of management. Since many employees take part in these techniques, individual bias can be minimised; collective wisdom can be the main advantage of involving employees at different level. This is a group-based technique to decision making. These techniques promote goodwill, enhance employee motivation and morale. They facilitate more acceptable and timely decisions while minimising the wastages of resources.

## **2.7 Programmed and Non Programmed Decisions**

### **2.7.1 Programmed Decisions**

Programmed decisions are those that are traditionally made using standard operating procedures or other well-defined methods. These are routines that deal with frequently occurring situations, such as requests for leaves of absence by employees.

In routine situations, it is usually much more desirable for managers to use programmed decision than to make a new decision for each similar situation. In programmed decisions managers make a real decision only once, when the program is created. Subsequently, the program itself specifies procedures to follow when similar circumstances arise.

The creation of these routines results in the formulation of rules, procedures, and policies.

Programmed decisions do not necessarily remain confined to simple issues, such as vacation policies or similar such things; they are also used to deal with very complex issues, such as the types of tests that a doctor needs to conduct before performing a major surgery on a patient with diabetes.

To summarize; programmed decisions features are;

- Programmed decisions made using standard operating procedures.
- Deals with frequently occurring situations. (Such as requests for leaves of absence by employees)
- Much more appropriate for managers to use programmed decision for similar and frequent situations.
- In programmed decisions managers make a real decision only once and program itself specifies procedures to follow when similar circumstances arise.
- Leads to the formulation of rules, procedures, and policies.

## 2.7.2 Non Programmed Decisions

Non-programmed decisions are unique. They are often ill-structured, one-shot decisions.

Traditionally they have been handled by techniques such as judgment, intuition, and creativity.

More recently decision makers have turned to heuristic problem-solving approaches in which logic; common sense and trial and error are used to deal with problems that are too large or too complex to be solved through quantitative or computerized approaches.

In fact, many management training programs on decision-making are designed to help managers think through problems using a logical, non-programmed approach. In this way they learn how to deal with extraordinary, unexpected, and unique problems.

**Non-programmed decision features are;**

- ⇒ Situations for Non-programmed decisions are unique, ill-structured.
- ⇒ Non-programmed decisions are one-shot decisions.
- ⇒ Handled by techniques such as judgment, intuition, and creativity.
- ⇒ A logical approach to deal with extraordinary, unexpected, and unique problems.
- ⇒ Managers take heuristic problem-solving approaches in which logic; common sense and trial and error are used.

**Similarities of Programmed Decision & Non-Programmed Decision**

- ⇒ Both are Required to run operations of Business efficiently.
- ⇒ Complements each other in setting goals and managing resources of the organization.

**Differences of Programmed Decision & Non-Programmed Decision**

S.No	Programmed Decision	Non-Programmed Decision
1	Used for frequent situations of organization; both internal and external.	Used for unique and ill-structured situations of organization; both internal and external.
2	Mostly Lower level managers are making these decisions.	Mostly Upper-level managers are making these decisions.
3	Follows structured and non-creative patterns.	Takes an outside of the box unstructured, logical and creative approach

Programmed decisions usually relate to structured problems while non-programmed decisions are taken to solve unstructured problems.

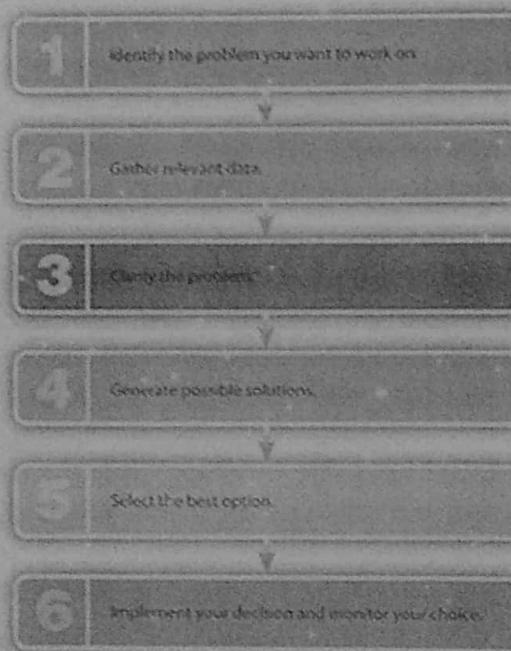
It is also to be noted that the programmed decisions are taken at the lowest level whereas the non-programmed decisions are taken at the highest level of organization hierarchy.

## 2.8 Steps in Problem Solving and Decision Making;

### 2.8.1 Steps in Problem Solving

#### A Six-Step Approach to Problem Solving

Assuming that your top priority is salvaging your GPA, let's tackle your problem by using a six-step approach to solving problems that don't have simple solutions. We've summarized this model in below Figure "How to Solve a Problem". Shari Caudron, "Six Steps in Creative Problem Solving,"



- 1. Identify the problem you want to work on** - Step one is getting to know your problem, which you can formulate by asking yourself a basic question: How can I improve my grades?
- 2. Gather relevant data** - Step two is gathering information that will shed light on the problem. Let's rehash some of the relevant information that you've already identified: (a) you did poorly on your finals because you didn't spend enough time studying; (b) you didn't study because you went to see your girlfriend (who lives about three hours from campus) over the weekend before your exams (and on most other weekends, as a matter of fact); (c) what little studying you got in came at the expense of your team project and lacrosse practice; and (d) while you were away for the weekend, you forgot to tell members of the mountain-biking club that you had to cancel the planned meeting.

3. **Clarify the problem** - Once you review all the given facts, you should see that your problem is bigger than simply getting your grades up; your life is pretty much out of control. You can't handle everything to which you've committed yourself. Something has to give. You clarify the problem by summing it up with another basic question: What can I do to get my life back in order?
4. **Generate possible solutions** - If you thought defining the problem was tough, wait until you've moved on to this stage. Let's say that you've come up with the following possible solutions to your problem: (a) quit the lacrosse team, (b) step down as president of the mountain-biking club, (c) let team members do your share of work on the business project, and (d) stop visiting your girlfriend so frequently. The solution to your main problem—how to get your life back in order—will probably require multiple actions.
5. **Select the best option-** This is clearly the toughest part of the process. Working your way through your various options, you arrive at the following conclusions: (a) you can't quit the lacrosse team because you'd lose your scholarship; (b) you can resign your post in the mountain-biking club, but that won't free up much time; (c) you can't let your business-project team down (and besides, you'd just get a low grade); and (d) she wouldn't like the idea, but you could visit your girlfriend, say, once a month rather than once a week. So what's the most feasible (if not necessarily perfect) solution? Probably visiting your girlfriend once a month and giving up the presidency of the mountain-biking club.
6. **Implement your decision and monitor your choice-** When you call your girlfriend, you're pleasantly surprised to find that she understands. The vice president is happy to take over the mountain-biking club. After the first week, you're able to attend lacrosse practice, get caught up on your team business project, and catch up in all your other classes. The real test of your solution will be the results of the semester's finals.

So, what types of skills will managers at Notes-4-You need? To oversee note-taking and copying operations, first-line managers will require technical skills, probably in operations and perhaps in accounting. Middle managers will need strong interpersonal skills to maintain positive working relationships with subordinates and to motivate them. As president, because you have to solve problems and come up with creative ways to keep the business growing, you'll need conceptual skills. And everyone will have to communicate effectively; after all, because you're in the business of selling written notes, it would look pretty bad if your employees wrote poorly. Finally, everyone will have to use time efficiently and call on problem-solving skills to handle the day-to-day crises that seem to plague every new company.

## Factors affecting in Decision Making

Whenever we are involved in making decisions a number of factors can affect the processes we follow and ultimately the decisions we make. They can be organized in to three major groups. They are

⇒ **Perception Issues** – It can be described as the way in which individuals interpret their environments. Perception can be influenced by the following.

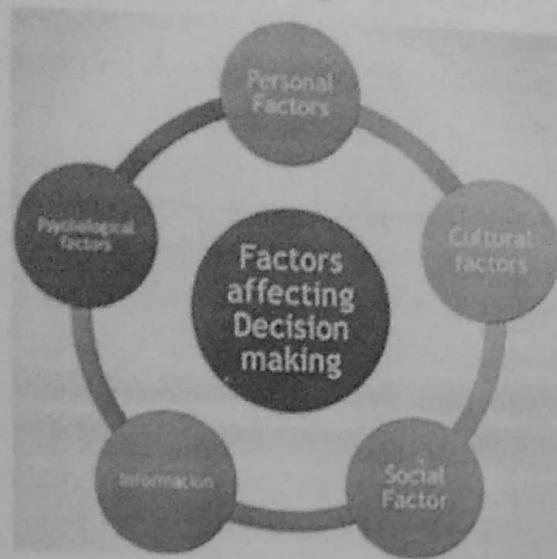
- **The Perceiver** – The types of personal characteristics that can affect individuals. Perception includes
  - Background & Experience
  - Personal values
  - Personal Expectations
  - Personal Interests
- **The Situation** – Time, location and other situational factors can influence our perception of an object. For example A Team Leader may notice Team Members who work late on the same evenings as the Team Leader. However, Team Members who work late on other evenings may not be noticed by the Team Leader.

⇒ **Organizational Issues** – A number of organizational issues can impact on the decision making processes. These issues include

- **Policies & Procedures** - Many organizations have formalized policies and procedures which have been developed to resolve common problems and to guide managers when making decisions.
- **Organizational Hierarchy** – It refers to the management structure of the organization. Most organizations have different levels of management which carry with them different degrees of authority. The degree authority directly impacts on the nature of the decisions an individual can make.
- **Organizational Politics** – It refers to behaviour displayed by individuals and groups which is designed to influence others. Individuals and teams will often use policies to
  - Advances their Carrier
  - Advances their interest and ideas
  - Increase their rewards

⇒ **Environmental Issues** – Environmental issues are the external factors that effect the organization. The types of external factors that can have an effect on decision making include

- The market in which the organization operates
- The economy
- Government legislation
- Customers reaction to the organizations products and services



#### ⇒ Personal Factors

- **Personal Demographic** – Age, Gender, Stages in Life Cycle Education, Occupation, Economic Position, etc.
- **Personal Psychographic** – It Includes Life Style, Attitude, Self-Concept, Concern about status, Value Systems, Beliefs...etc.

#### ⇒ Cultural Factors

- **Culture** – Combined resulted of factors like religion, tradition, taboos, language, education, upbringing, established pattern, of social behaviour, values ... etc.
- **Sub Culture** - Castes
- **Social Class** – It is determined by the educational level, wealth, occupation, profession and designation, location of residence, values, and behaviour ... etc.

#### ⇒ Social Factors – It influences of references group

- **Intimate Groups** – Ex – Family, Friends, Peer Groups, College Colleagues, & Close-knit organizations.
- Face-to-Face & frequent interactions are characteristic features of the group.
- **Secondary Groups** – It is including Opinion Leaders. It is based on the occupation, Profession place of residence ... etc. of the members

#### ⇒ Information - It should be authentic, reliable, adequate, and must be available at time. So enough time must be there to analyze the problem. It reduces the uncertainty. Too much information or Information overload creates confusion and delay in decision making.

#### ⇒ Psychological Factors

- **Motivation** – It all begins with the needs.
- **Perception** – According to the consistency theory one mostly listen to things to support once existing belief system.
  - Selective attention
  - Selective distraction
  - Selective retention