

Decision Making and Problem Solving Skills

❖ What is Decision Making?

Decision-making is defined as choosing between alternatives Or, it is the process of sufficiently reducing uncertainty and doubt about alternatives to allow a reasonable choice to be made from among them. This definition emphasizes information gathering in order to reduce uncertainty.

Decision-making and control are two important processes in organizational effectiveness. Managers who make good decisions contribute to the goals and performances of an organization.

P.P. Drucker in his book “Practice of Management,” observes “Whatever a manager does, he does through making decision.” True, the job of management involves the making of innumerable decisions. That is why many persons think that management is decision-making.

Different management scholars have defined Decision making as follows:

- **George Terry:**

Decision making is the selection based on some criteria from two or more alternatives.

- **Heinz Weihrick and Harold Koontz**

Decision making is defined as the selection of a course of action among alternatives, it is the care of planning.

- **Louis Allen**

Decision making is the work a manager performs to arrive at conclusion and judgement.

❖ PHASES OF DECISION – MAKING

Herbert A. Simon, the well known Nobel Prize–winning organization and decision theorist, who conceptualized three major phases in the decision-making process:

- **1. Intelligence activity:** Borrowing from the military meaning of “intelligence,” Simon described this initial phase as consisting of searching the environment for conditions calling for decision making.
- **2. Design activity:** During the second phase, inventing, developing, and analyzing possible courses of action take place.
- **3. Choice activity:** The third and final phase is the actual choice—selecting a particular course of action from among those available.

❖ **STAGES OF DECISION MAKING**

1. The identification phase: during which recognition of a problem or opportunity arises and a diagnosis is made. It was found that severe, immediate problems did not receive a very systematic, extensive diagnosis but that mild problems did.

2. The development phase: during which there may be a search for existing standard procedures or solutions already in place or the design of a new, tailor-made solution. It was found that the design process was a groping, trial-and-error process in which the decision makers had only a vague idea of the ideal solution.

3. The selection phase: during which the choice of a solution is made. There are three ways of making this selection: by the judgment of the decision maker, on the basis of experience or intuition rather than logical analysis; by analysis of the alternatives on a logical, systematic basis; and by bargaining when the selection involves a group of decision makers and all the political maneuvering that this entails. Once the decision is formally accepted, an authorization is made.

❖ **Types of Decision Making**

1. Programmed and non-programmed decision making
2. Proactive and Reactive Decision
3. Responsive and Intuitive decisions
4. Micro and Macro Decision making
5. Decision making 'cautions vs- courageous

1. Programmed and non-programmed decisions:

Programmed decisions are concerned with the problems of repetitive nature or routine type matters.

- A standard procedure is followed for tackling such problems. These decisions are taken generally by lower level managers. Decisions of this type may pertain to e.g. purchase of raw material, granting leave to an employee and supply of goods and implements to the employees, etc.

Non-programmed decisions relate to difficult situations for which there is no easy solution.

- These matters are very important for the organization. For example, opening of a new branch of the organization or a large number of employees absenting from the organization or introducing new product in the market, etc., are the decisions which are normally taken at the higher level.

2. Proactive and Reactive Decision

Proactive decisions are more frequent in organizations. Proactive decisions allow time for studying the options. You can analyze the situation and make a better decision. These types of decisions involve a phase of preparation and a phase of execution. In the preparation stage, you define the problem, collect information about it, assess the consequences of each option and then make a decision.

On the contrary, **reactive decisions** do not allow any time. You must act under the pressure of time and circumstances, and such decisions are both the most important and most difficult. You must, however, be carefully prepared for reactive decisions in order to act quite automatically when the event occurs. Usually organizations make use of the risk assessment matrix and list the risks involved in making the decision, and establish the best emergency plans.

3. Responsive and Intuitive decisions

In a responsive decision-making process, you make decisions in response to the data that is available. In responsive decision-making, the decision-making is more focused and is in response to the trends that are appearing in the corporate matrices. The concerned people can look at the available data at any time and understand what is happening, rather than waiting for the month-end reports to be compiled. Intuition is receiving inputs and ideas without knowing exactly how and where you got them from.

Intuitive decision-making is far more than using common sense because it involves additional sensors to perceive and be aware of the information from outside. Sometimes, it is referred to as gut feeling, sixth sense, inner sense, instinct, inner voice, spiritual guide and so on.

4. Micro and Macro Decision making

Micro decision-making refers to the decisions made transaction by transaction, customer by customer. Micro decisions are small decisions made many times by many workers during customer interface. Even though they are made at the lower level, they can have a major impact on the business organization. These decisions are found deep within key operational processes and affect the total organization.

Macro decisions are real decisions and focus on how the decision process can be structured. Macro decisions that are made later may influence prior decisions and determine the context under which a cluster of micro decisions have to be taken.

For example, the macro decision to accept a work practice design option for one unit of work contains the micro decisions to decide for each task where and by whom it will be done. The hierarchical sequence of macro decisions is called a decision tree.

5. Decision making ‘cautions vs- courageous’

Decision-making being all pervasive, understanding your risk preference helps in making better decisions. Decisions are subject to unknown and/or uncontrollable factors. Irrespective of whether the decision-maker is aware or not, the unknown factors are evaluated and the impact of different alternatives is analyzed. Remember that the gain and associated risks for each alternative are only estimates at best and are subject to the perception of the decision-maker. Needless to say, your perception is a function of your propensity to take risks. People differ with respect to their risk tolerance. There are those who would avoid risks to the extent possible and others who are thrilled with the excitement associated with risk-taking and its benefits. In short, making cautious decisions (associated with low risks) or courageous decisions (associated with high risks) is influenced by the decision-maker's risk profile.

❖ 5 STEPS OF DECISION MAKING

1. Identification of problems: the first step of decision making is identification of problems. First of all, managers must identify the problem. The problem has to be found and defined. Symptoms are identified and problems should be judged, symptoms are not problems. They are warning signs of problems. So, managers should search for symptoms for identification of problems. Such symptoms can be falling of sales, profit etc. It is said that problem identified is half solved is identification of problem should be effective.

2. Analysis of problem: after identification of problems, the problem should be analyzed by the decision maker. It is the assembly of fact and clarifying it. Relevant information must be collected and analyzed according to the complexity and nature of problems.

3. Developing the alternative solution: after identification and analysis of problems different probable solutions have to be developed which is known as developing the alternative solutions. There may be many alternative past experience, expert opinion, discussions etc. which may be helpful to develop the alternative.

4. Evaluation of best alternative: after developing the alternative solution evaluation of best alternative is done. It is determined that which alternative has how much advantage and disadvantages. In other words, alternatives are evaluated in so many factors like cost factors, risk, benefits, facilities etc. therefore it is very important.

5. Selection of best alternative: after evaluating alternative, the best alternative is to be selected from various alternative. After developing alternative, the managers should taste each of them by imagining things that he has already put in effect. He should try to foresee the desirable consequences of adopting each alternative. It is done for best selection. Therefore it is very important.

❖ MODELS OF DECISION-MAKING

- There are different decision-making models. It involves a cognitive process where each step follows in a logical order, weighing the alternatives to come up with the best potential results.
- The different steps involved in a rational model are described as follows:
- **Rational Model (will discuss)**: It involves the study of cost and benefit. If the benefit is greater than the cost, then it is decided to accept the project.
- **Political Model**: In this case, the decision is based on the political agenda and objectives.
- **Process Model**: According to this, a decision is taken if there is any such precedent in the organization.
- **Garbage Can Model**: In this method, the decision-maker looks into the suggested ideas and the discarded ideas thrown into the garbage can, and finds some common acceptable decision.
- **Majority Decision Model**: Decision is based on majority votes. **Minority Decision Model**: Decision is based on the opinions of the minority group, which may be very well-known and experienced.

Consensus Model: Decision is based on unanimous opinions.

Rational Decision-Making Model :

- The first step here is to define the situation or decision to be made. Next you identify the important criteria for the process and the result by considering all possible solutions.
- After this, calculate the consequences of these solutions against the likelihood of satisfying the criteria and choose the best option. For finding the best option, usually a decision tree is prepared. Relative importance is given to each criterion and the options are scored against each of the criteria. The highest then ‘wins’.
- A rational decision-making model presumes that there is one best outcome. Because of this, it is sometimes called an optimizing decision-making model. The search for perfection is frequently a factor in the delay in making a decision. This model considers all possible options and its consequences in the future.

Group Decision Making Methods:

Group is a collection of individuals who work towards a goal. Group decision-making is a participatory process where all the group members collectively analyze problems or situations, consider and evaluate alternative courses of action, and select from among the alternatives a solution or solutions. Decision making in groups may be formal or informal in nature. The process used to arrive at decisions may be unstructured or structured. The different factors that affect group decision-making include the nature and composition of groups, their size, demographic makeup, structure and purpose.

❖ **BRAINSTORMING TECHNIQUE**

Brainstorming is a commonly used method that involves group members verbally suggesting ideas or alternative courses of action. The ‘brainstorming session’ is usually relatively unstructured.

Steps involved in brainstorming

The first step in the brainstorming session is describing the situation at hand in as much detail as necessary so that the group members have a complete understanding of the issue or problem. This gives the members an overall idea of the problem.

The group leader or facilitator facilitates the generation of as many ideas as possible from all members of the group and the generated ideas are recorded and presented on a flip chart or marker board.

The final stage is the evaluation phase where the group members begin the process of evaluating the utility of the different suggestions presented.

Brainstorming is a useful means by which to generate alternatives. However, it does not offer much in the way of a process for the evaluation of alternatives or the selection of a proposed course of action.

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Avoiding Group

Think Group think is the result of individual desires for self-expression (especially when it is not popular) and questioning becomes subservient to group consensus. Anxiety about group cohesion becomes detrimental to sound decision-making and problem-solving. Group think occurs and is sustained in the presence of: A charismatic and influential leader A high-level of group cohesion or desire for it External pressure for quick and/or sound decision.

❖ **NOMINAL GROUP THINKING METHOD**

- The nominal group technique is a structured decision-making process in which group members are required to compose a comprehensive list of their ideas or proposed alternatives in writing.

Steps Involved:

- 1. The problem at hand is presented before the group members.
- 2. The group members are requested to record their decisions and their ideas privately.
- 3. Each group member is asked to provide one item from his or her list until all ideas or alternatives have been publicly recorded on a flip chart or marker board.
- 4. The next stage permits the members to make requests for clarification. No evaluation or criticism of the listed ideas is permitted in this method.
- 5. After all proposals are listed publicly, the group engages in a discussion of the listed alternatives, which ends in some form of ranking or rating in order of preference.
- This method is found to be an effective method because it succeeds in generating a greater number of decision alternatives that are of relatively high quality.

❖ **DELPHI TECHNIQUE**

This technique is very useful in situations where the individual members are in different physical locations. The technique was developed at the Rand Corporation. The individuals in the Delphi ‘group’ are usually selected because of the specific knowledge or expertise of the problem they possess.

1. The problem is given to each member of the group.
2. Each group member is then asked to independently provide ideas, inputs and/or alternative solutions to the problem in successive stages.
3. These inputs may be provided in a variety of ways, such as e-mail, fax or online in a discussion room or electronic bulletin board.
4. After each stage in the process, other group members ask questions and the alternatives are ranked or rated in some fashion.
5. After an indefinite number of rounds, the group eventually arrives at a consensus on the best course of action.

❖ **NETWORK TECHNIQUE**

- Network analysis helps management to minimize the total cost and total maintenance time. With the use of network analysis cost of production can be minimized through reducing the maintenance time.
- Network analysis ensures the effective utilization of limited resources. It also ensures the optimal use of resources and help to control the idle resources so that project can be effectively executed within the budgeted costs and scheduled time.
- Network analysis facilitates co-ordination among the activities as well the persons responsible for project.
- Time management plays a crucial role in every project. Sometimes available resources have to be arranged with a view to reduce the total time for the project rather than reducing the cost of the project. Network analysis helps the managers to manage activities without any delay.
- Network analysis is great tool which helps in planning, scheduling and controlling the activities of the project.
- Network analysis also creates inter-relationship as well as inter-dependence of various activities of project.

❖ **STEP LADDER TECHNIQUE**

- Effective group work can outperform individuals and make superior quality decisions. However, ineffective groups make decisions that are worse than those made by individuals working on their own. The Step Ladder technique is a method for ensuring that individual participation results in better group decision-making. Steps Involved: The issue is presented to all members before working in groups. They get sufficient time to form their opinions.
- 1. A core group, consisting of two members is formed, who discuss the issue or problem.
- 2. A third member is added to the group who presents his or her ideas before listening to those of the first two. After all the three have expressed their ideas, a group discussion follows.
- 3. The process is repeated, adding a fourth member to the group, then a fifth and so on. After each new member is added, discussions follow.
- 4. A final decision is made after, and only after, all the members have been included in the group and their ideas have been presented.

❖ **Advantages of Group Decision-Making**

- Group decision-making, ideally, takes advantage of the diverse strengths and expertise of its members. By tapping the unique qualities of group members, it is possible that the group can generate a greater number of alternatives that are of higher quality than an individual. If a greater number of higher quality alternatives are generated, it is likely that the group will eventually reach a superior solution than an individual.
- Through group decision-making, it is likely that a greater collective understanding of the eventual course of action chosen will take place, because it is possible that the persons affected by the implementation of the decision actually had an input. This may promote a sense of ‘ownership’ of the decision, which is likely to contribute to a greater acceptance of the course of action selected and greater commitment on the part of the affected individuals to make the course of action successful.

❖ **Disadvantages of Group Decision-Making**

- There are many potential disadvantages to group decision-making:
- Groups are generally slower to arrive at decisions than individuals, so sometimes it is difficult to utilize them in situations where decisions must be made very quickly.
- One of the most often cited problems is group think. Group think occurs when individuals in a group feel the pressure to conform to what seems to be the dominant view in the group. Dissenting views of the majority opinion are suppressed and alternative courses of action are not fully explored.
- Research suggests that certain characteristics of groups contribute to group think. In the first place, if the group does not have an agreed upon process for developing and evaluating alternatives, it is possible that an incomplete set of alternatives will be considered and that different courses of action will not be fully explored. Many of the formal decision-making processes (for example, nominal group technique and brainstorming) are designed, in part, to reduce the potential for group think by ensuring that group members offer and consider a large number of decision alternatives. Secondly, if a powerful leader dominates the group, other group members may quickly conform to the dominant view.

❖ **Approaches to Ethical Decision- Making**

1. Egoism
2. Utilitarianism or consequentialism
3. Deontologism or duty-based approach
4. Common good approach
5. Rights approach
6. Fairness or justice approach
7. Virtue-based approach
8. Care-based approach

Egoism (selfishness)

- Ethical egoism is the normative ethical position that moral agents ought to do what is in their own self-interest. Ethical egoism does not require moral agents to harm the interests and well-being of others.
- Egoism is of three types, namely, individual, personal and universal.
- 1. An individual ethical egoist would hold that all people should do whatever benefits them.
- 2. A personal ethical egoist would hold that he or she should act in his or her own interest, but would make no claims about what anyone else ought to do.
- 3. A universal ethical egoist would argue that everyone should act in ways that are in their own interests.

Utilitarianism or consequentialism

- Utilitarianism emphasizes that the ethical action is the one that does the most good or does the least harm to others and that produces the greatest balance of good over harm.
- The utilitarian approach deals with consequences and tries both to increase the good done and to reduce the harm done. In consideration of the consequential approach, individuals should do whatever brings the best results in a situation.
- The main advantage of utilitarianism is that an individual can evaluate comparable results and use a point system to establish which decision is more beneficial to the most individuals.
- The weakness of this approach is that some individuals may be able to use life experience to predict results, but there is no certainty to this practice. This may lead to unexpected results, which may be unethical because the choice may not benefit many individuals.

Deontology or duty-based approach

- According to the deontological approach, the consequences of actions are not significant when it comes to determining what is right and wrong. That is, consequences do not make a difference when determining if an action is right or wrong or individuals are moral or immoral. In other words, the end does not justify the means. A standard of morality determines if an action is right and if individuals are good.
- . The main weakness of this approach is that there is no justification or logical basis for determining an individual's responsibilities.

Common good approach

- According to this approach, a decision is of use when it contributes positively for the maximization of social welfare or benefits for all and is an ethical decision because it enhances the common good, and all are benefitted. This approach suggests that the interlocking relationships in society are the basis of ethical reasoning and that respect and compassion for all others, especially the vulnerable, are requirements of such reasoning. This approach also calls for attention to the common conditions that are important to everyone's welfare.

Rights approach

- For philosophers and ethicists, the ethical action is the one that best protects and respects the moral rights of those affected. The rights approach starts from the belief that humans have a dignity based on their human nature or on their ability to choose freely what they should do with their lives. On the basis of such dignity, they have a right to be treated as ends and not merely as means to other ends.

Fairness or justice approach

- All ethical actions treat all human beings equally or if unequally, then fairly based on some standard that is defensible. The concept of justice includes: distributive justice (fair distribution of benefits and burden), procedural justice (fair method of making a deal, agreement or contract), retributive justice (correct punishment in accordance with the harm or injury done) and compensatory justice (fair compensation to someone for the harm or injury done in the past).
- You pay people more based on their hard work or the amount that they contributed to an organization, and say that is fair. Because all people are not equal in every respect, justice demands that equity should be the correct principle and not absolute equality.

Virtue-based approach

- The ancient approach to ethics is that ethical actions ought to be consistent with certain ideal virtues that provide for the full development of one's humanity. These virtues are dispositions and habits that enable one to act according to the highest potential of one's character and on behalf of values such as truth and beauty. Honesty, courage, compassion, generosity, tolerance, love, fidelity, integrity, fairness, self-control, and prudence are all examples of virtues. A virtuous man is an ethical man, and a decision taken to develop human virtues is ethically the correct decision. An ethical decision needs to be consistent with certain ideals of virtue. The decision-maker must exhibit, exercise, develop or encourage morally virtuous character. All good decisions must encourage virtues and discourage vices in any form.

Care-based approach

- The ‘ethics of care’ is a normative theory, i.e. a theory about what makes actions right or wrong. Ethics of care emphasizes the importance of relationships. Ethics of care focuses on your responsibility for the well-being of others and yourself, and is keenly aware of the inequalities of power that are present in virtually all relationships. It places a premium on security from danger and harm. It is contrasted with morality of justice, emphasizing fairness and equality. It is ethical to take care of all those persons whom you love and who need your care and compassion, love, kindness and mercy.

❖ PROBLEMS AND DILEMMAS IN DECISION-MAKING

- There are many problems in decision-making. Some of them are described as follows: The first one is the **routine decisions problem**, where decisions are made routinely to solve immediate problems instead of sticking to rights or justice. The second problem is that of innovation. Individuals neglect any innovation simply because it entails efforts or decreased prestige to others. Innovation is a call for change, which implies criticism of existing performances, policies and personnel in the unit involved.
- The problem arises when traditional people are oriented to the past and regard innovative ideas or suggestions as attacks on the standards and quality established over a long time. Next is the problem of **institutional mission**. This includes role purposes and conflicts may arise between internal demands and external demands. Objectives may be conflicting when it comes to implementing decisions. Likewise, short-run goals may be in conflict with long-run goals.

- Other problems include the **anchoring trap**, where you give disproportionate weightage to the first piece of information that you receive. This often happens because the initial impact of the first information—your immediate reaction to it—is so significant that it outweighs everything else, ‘drowning’ your ability to effectively evaluate a situation.

