

Decision-making under Certainty

⇒ when decision maker has complete information about the available alternatives, the potential outcomes and the associated probabilities of each outcome.

In this situation, there is no uncertainty or risk involved, and the decision maker can make choices with high degree of confidence because the outcome is known with certainty.

- Steps:
1. Identifying the problem or Opportunity
 2. List of all alternative courses of action that could be taken
 3. gathering information means obtaining complete and reliable data about each alternative and its potential outcomes.
 4. Analyzing Alternatives:
 - ↳ with complete information and certainty about the outcomes, the decision maker chooses the best alternative.
 - Compare the potential outcomes & consequences to determine the most favourable outcome.
 5. Making the decision → to choose the desired outcome with certainty.

6. Implementing the decision → time to take action. The decision maker ensures that the necessary resources and actions are put in place to carry out the decision.

7. Monitoring and Evaluating: Once the decision is implemented, the decision maker monitors its progress and evaluates the actual outcomes against the expected results.

Decision making under risk and uncertainty

1. When decisions are made under risk, decision maker has a clear understanding of all possible outcomes and their associated probabilities. In other words, the decision maker can assess the likelihood of different outcomes occurring based on historical data, statistics or expert opinions.

To cope up with risk, decision makers often use various tools and techniques.

a. Probability Analysis → using statistical data to calculate the likelihood of different

a) Probability Analysis \rightarrow using statistical -
Calculate the likelihood of different
outcomes and their expected
values.

b) Decision trees: \rightarrow constructing a visual representa-
tion of decision alternatives and their
possible consequences, along with
their probabilities.

c) Expected Monetary Value (EMV):
Calculating the expected value of each
decision alternative by multiplying
probability of outcome with its
monetary value.

$$E(x) = \sum x \cdot P$$

2° In decision making with uncertainty it is
challenging to make data driven decisions

To address uncertainty, decision makers may
adopt the following strategies:

(a) Scenario Analysis: Considering multiple
scenarios that could unfold and
assessing the possible impacts of each
scenario on the decision.

scenario on the decision.

(b) Sensitivity Analysis: Examining how changes in certain variables or assumptions might affect the decision's outcomes.

(c) Intuition and Judgment:

Relying on the experience, intuition & judgement of decision makers when data is insufficient or unreliable.

What is a Decision-Making Group?

It refers to teams or committees within an organisation that are responsible for making important decisions. These groups typically consist of all individuals from different functional areas or departments who collaborate to analyse information, evaluate alternatives and arrive at a consensus on critical issues affecting the organisation.

Decision making Guidelines?

1. Define the problem f. implement the

Decision making

- a. Define the problem
- b. Gather info
- c. identify alternative
- d. evaluate alternative
- e. Make decision.

- f. implement the decision
- g. Monitor and Adjust.

Nature of Organising - Types.

1. Functional Organisation
2. Divisional Organisation
3. Matrix Organisation
4. Flat Organisation
5. Hierarchical Organisation
6. Non-profit Organisation
7. Profit Organisation.
8. Government Organisation.