

## **DIFFUSION OF INNOVATIONS**

Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system. It is a special type of communication, in that the messages are concerned with new ideas.

### **Elements in the diffusion of innovations**

The four main elements in diffusion of innovations are

1. innovation
2. communication channels
3. time
4. social system.

The descriptions for these elements are presented below:

#### **1) The innovation**

An innovation is an idea, practice or object that is perceived as new by an individual or other unit of adoption. The perceived newness of the idea for the individual determines his or her reaction to it. The "newness" aspect of an innovation may be expressed in terms of knowledge, persuasion or a decision to adopt.

In this context, to know about the perceived attributes of innovation would be appropriate which are described in the succeeding paras:

##### **a. Relative advantage**

It is the degree to which an innovation is perceived as better than the idea it supersedes. The degree of relative advantage may be measured in economic terms, but social-prestige factors, convenience and satisfaction are also often the important components.

##### **b. Compatibility**

It is the degree to which an innovation is perceived as being consistent with the existing values, past experiences and needs of potential adopters.

##### **c. Complexity**

It is the degree to which an innovation is perceived as difficult to understand and use. In general, new ideas that are simpler to understand will be adopted more rapidly than innovations that require the adopter to develop new skills and understandings.

##### **d. Trialability**

It is the degree to which an innovation may be experimented with on a limited basis. An innovation that is trialable represents less uncertainty to the individual who is considering it for adoption, as it is possible to learn by doing.

##### **e. Observability**

It is the degree to which the results of an innovation are visible to others. The easier it is for individuals to see the results of an innovation, the more likely they are to adopt.

## 2) Communication channels

A communication channel is the means by which messages get from one individual to another. The following classification of channels would help the communicator to use them appropriately:

**i) Interpersonal channels** - It refers to those which are used for face to face communication between two or more individuals.

**ii) Mass media channels** - These enable the messages to reach a larger, diverse audience simultaneously in a relatively shorter time. e.g.: Radio and T.V.

**iii) Localite channels** - They originate within the social system of the receiver. eg: neighbours, relatives, opinion leaders etc.

**iv) Cosmopolite channels** - They originate outside a particular social system. eg: Extension worker, sales personnel etc.

## 3. Time

It is an important element in the diffusion process. Time is an obvious aspect of any communication process. Time does not exist independently of events, but it is an aspect of every activity. The time dimension is involved in diffusion (i) in the innovation - decision process, (ii) in the innovativeness of an individual or other unit of adoption, and (iii) innovation's rate of adoption in a system.

## 4. Social System

It is defined as a set of interrelated units that are engaged in joint problem solving to accomplish a common goal. The members or units of a social system may be individuals, informal groups, organisations and / or subsystems. The social system constitutes a boundary within which an innovation diffuses.

## Innovation - Decision Process

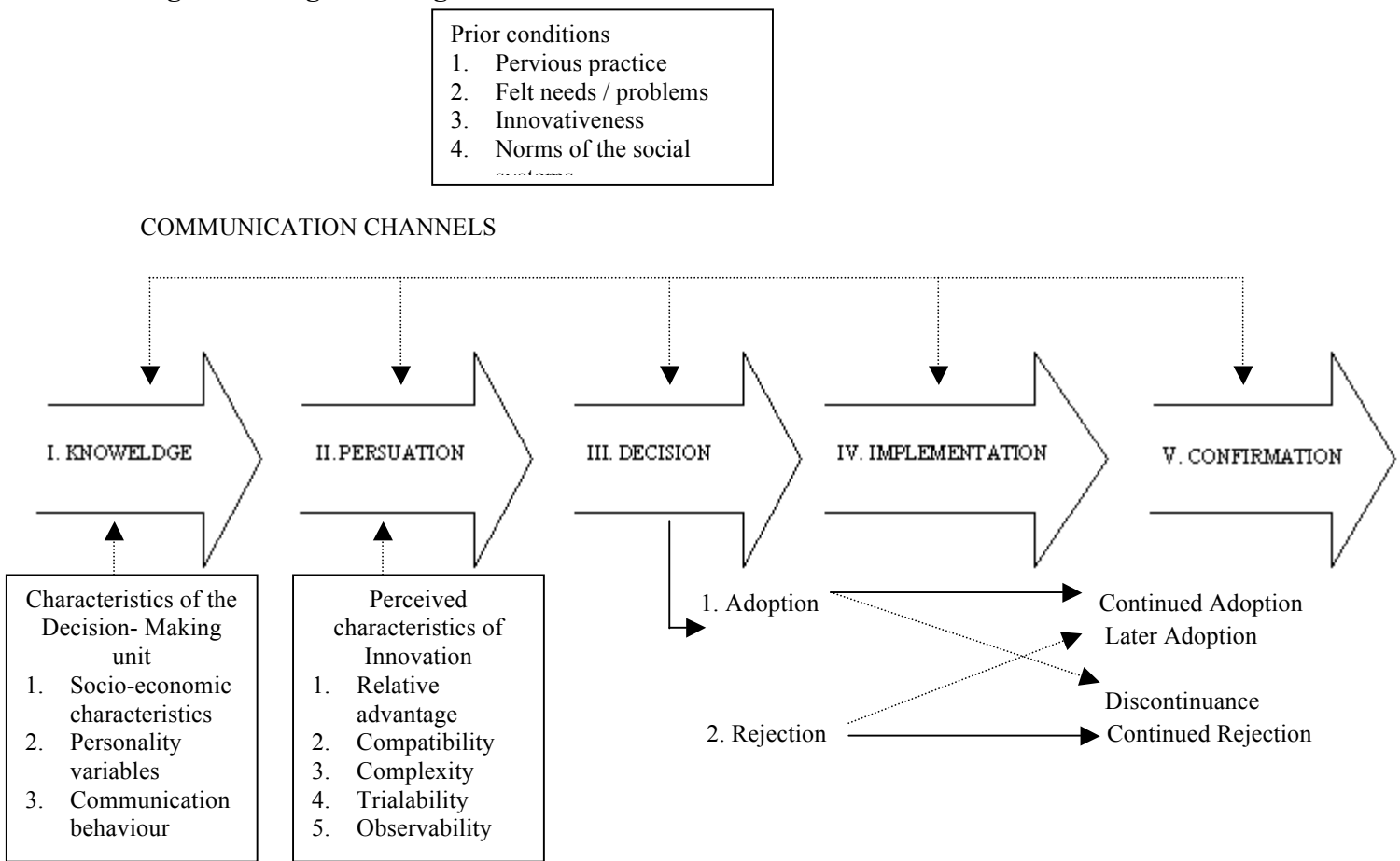
As an alternative to the "Stages in the adoption process" viz., Awareness, Interest, Evaluation, Trial and Adoption, due to the advancements in diffusion research, currently "Innovation - Decision process" is proposed which enlightens the sequential stages in the adoption - decisions made by individuals or other units of adoption.

The "Innovation - Decision Process" is the process through which an individual (or other decision - making unit) passes from first knowledge of an innovation, to forming an attitude towards the innovation to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision.

This process consists of a series of actions and choices over time through which an individual or an organisation evaluates a new idea and decides whether or not to incorporate the new idea into ongoing practice.

The conceptualization of the model of the innovation decision process consists of the following five stages (as illustrated in fig.27.)

**Fig.1. Paradigm on Stages in the Innovation-Decision Process**



### 1. Knowledge stage:

Knowledge occurs when an individual (or the decision - making unit) is exposed to the innovation's existence and gains some understanding of how it functions.

The following three types of knowledge possessed by an individual influence the decisions:

- Awareness – knowledge** motivates an individual to seek “how-to” knowledge and principles knowledge. This type of information - seeking is concentrated as the knowledge stage of the innovation - decision process, but it may also occur at the persuasion and decision stages.
- How-to knowledge** consists of information necessary to use an innovation properly. When an adequate level of how-to knowledge is not obtained prior to the trial and adoption of an innovation, rejection or discontinuance is likely to result. Change agents could perhaps play their distinctive role to concentrate on "how-to knowledge" at the trial and decision stage in the process.

iii). **Principles knowledge** consists of information dealing with the functioning principles underlying how the innovation works. It is usually possible to adopt an innovation without principles knowledge, but the danger of misusing the new idea is greater, and discontinuance may result. The long-range competence of individuals to judge future innovations is facilitated by principles knowledge.

## **2. Persuasion stage**

Persuasion occurs when an individual (or other decision - making unit) forms a favourable or unfavourable attitude toward the innovation.

While the mental activity as the knowledge stage was mainly cognitive (or knowing), the main type of thinking at the persuasion function is affective (or feeling). At this stage, a general perception of the innovation is developed. The individual becomes more psychologically involved with the innovation and hence he or she seeks information about the new idea.

## **3. Decision stage**

Decision occurs when an individual (or other decision - making unit) engages in activities that lead to a choice to adopt or reject the innovation.

Adoption is a decision to make full use of an innovation as the best course of action available. Rejection is a decision not to adopt an innovation.

The small - scale trial is often part of the decision to adopt, and is important as a means to decrease the perceived uncertainty of the innovation for the adopter.

## **4. Implementation stage**

Implementation occurs when an individual (or other decision - making unit) puts an innovation into use. Until the implementation stage, the innovation-decision process has been a strictly mental exercise. But implementation involves overt behaviour change as the new idea is actually part into practice.

Problems of implementation are likely to be more serious when the adopter is an organisation rather than an individual. Reason is that in an organisational setting, a number of individuals are usually involved in the innovation - decision process, and the implementers are often a different set of people from the decision makers.

## **5. Confirmation stage**

Confirmation occurs when an individual (or other decision - making unit) seeks reinforcement of an innovation - decision already made, but he or she may reverse this previous decision if exposed to conflicting messages about the innovation.

The confirmation stage continues after the decision to adopt or reject for an indefinite period in time. At this stage, the change agents have the additional responsibility of supporting messages to individuals who have previously adopted.

As a sequential effect, there is a possibility for "discontinuance". Discontinuance is a decision to reject an innovation after having previously adopted it. There are two types of discontinuances:

- i). Replacement discontinuance - is a decision to reject an idea in order to adopt a better idea that supersedes it.
- ii). Disenchantment discontinuance - is a decision to reject an idea as a result of dissatisfaction with its performance.