

MODEL OF ADOPTION PROCESS

Adoption process includes

1. **Need:** This is a stage when an individual wishes to change his existing practices, express dissatisfaction and develops a compromise.
2. **Awareness:** The individual just comes to know about an innovation without knowing the details of it.
3. **Interest:** He makes an attempt to know more about the innovation. Asks extension agents / friends and seeks information and sees the innovation.
4. **Deliberation:** This is a stage of deliberation and mental evaluation. The individual mentally examines the possibility of application of the innovation under own condition. He seeks advice of opinion leaders, observes the performance at different places and discusses with family members. The individual then takes a decision to try out or reject the idea.
5. **Trial:** An individual uses an innovation in part or sometimes in full. The individual applies the practice on a limited scale to observe the performance under own conditions.
6. **Evaluation:** The individual evaluates the performance of the innovation. The individual observes the performance of an innovation on various dimensions. Collects data on the performance of an innovation on others' situations. Compares the performance of the new with the old one and figures out changes which will be necessary if innovation is to be adopted. Calculates input- output, risks, uncertainties etc.
7. **Adoption:** It is a decision to use the practices on continued basis.

Adopter Categories

There are different categories of farmers. According to Rogers (1971), the farmers based on their innovativeness can be classified as

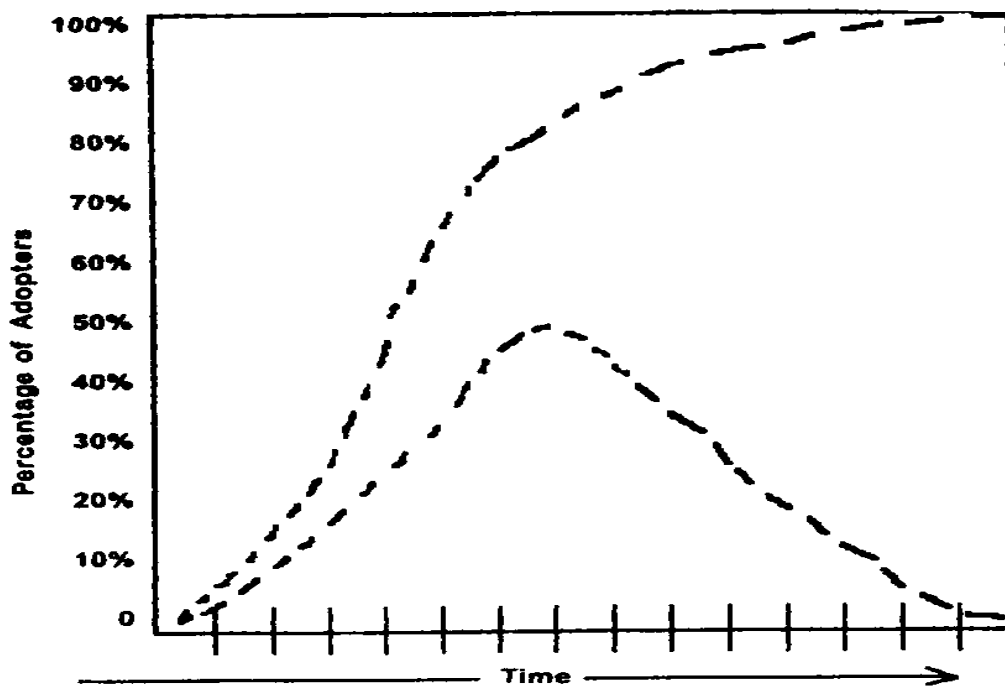
1. Innovators (Venturesome)
2. Early adopters (Respectable)
3. Early majority (Deliberate)
4. Late majority (Skeptical)
5. Laggards (Traditional)

Characteristics of farmers

All individuals in a social system do not adopt an innovation at the same time. Rather, they adopt in an ordered time sequence, and they may be classified into adopter categories on the basis of when they first begin using a new idea. In technology transfer programme, it is of great practical utility for the extension workers to identify the individuals who are likely to adopt innovations early and who may lag behind.

The adoption of an innovation over time follows a normal, bell-shaped curve when plotted over time on frequency basis. If the cumulative number of adopters is plotted, it results in an S-shaped curve. The S-shaped curve rises slowly at first when there are few adopters in a time period, accelerate to a maximum when about half of the individuals in the system have adopted and then increases at a gradually slower rate as the few remaining individuals finally adopt (Fig. 1). The S-shaped curve is like that of a 'learning curve' as propounded by the psychologists. Each adoption in the social system is in a sense equivalent to a learning trial by an individual.

Fig.1. The bell shaped frequency curve and the S-shaped cumulative curve for adopter categories



Both of these curves are for the same data, the adoption of an innovation over time by the members of a social system. But the bell-shaped curve shows these data in terms of the number of individuals adopting each year, whereas the S-shaped curve shows these data on cumulative basis.

The distribution of adopters over time closely approaches normality, and may be explained by the statistical concept of normal curve. The distribution of the adopters may be partitioned into five adopter categories by using the mean (\bar{x}) and standard deviation. The area lying to the left of the mean time of adoption minus two standard deviations includes 2.5 per cent of the individuals who are the first to adopt an innovation and are known as innovators. The next 13.5 per cent between the mean minus one standard deviation and the mean minus two standard deviations to adopt the new idea are called as early adopters. The next 34 per cent of the adopters between the mean date of adoption and minus one standard deviation are known as early

majority. Between the mean and one standard deviation to the right of the mean are located the next 34 per cent to adopt the new idea, the late majority. The last 16 per cent to the right of mean plus one standard deviation are the last to adopt the innovation the laggards. The five-adopter categories are conceptualized as ideal types and are presented in Figure 2.

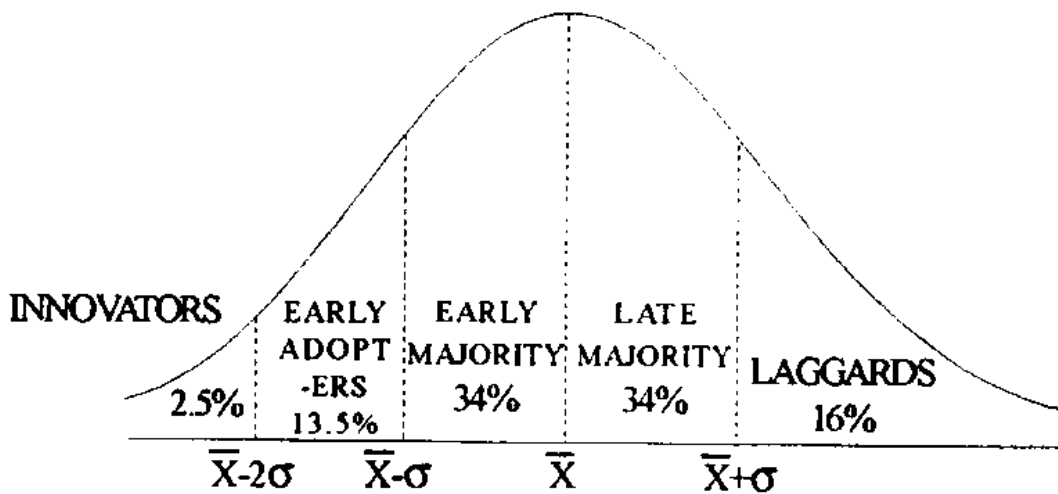


Fig. 2. Adopter categorization on the basis of innovativeness

The innovativeness dimension, as measured by the time at which an individual adopts an innovation, is continuous. However, this variable may be partitioned into five adopter categories by laying of standard deviations from the average time of adoption.

The detailed information on the characteristics of adopter categories is presented in the succeeding pages:

Innovators: Venturesome

Observers have noted that venturesomeness is almost an obsession with innovators. They are eager to try new ideas. This interest leads them out of a local circle of peers and into more cosmopolite social relationships. Communication patterns and friendships among a clique of innovators are common; even though the geographical distance between the innovators may be great. Being an innovator has several prerequisites. These include control of substantial financial resources to absorb the understand and apply complex technical knowledge.

The salient value of the innovator is venturesomeness. He desires the hazardous, the rash, the daring, and the risky. The innovator also must be willing to accept an occasional setback when one of the new ideas he adopts proves unsuccessful.

These are the first people to adopt a new idea, much ahead of other people. They are very few in numbers, probably not more than one or two in a community.

Characteristics

- a) Have larger farms.
- b) High net worth and risk capital.
- c) Willing to take risks.
- d) Usually not past middle age
- e) Generally well educated
- f) Have respect and prestige in progressive communities but not in conservative type of communities.
- g) Mentally alert and actively seeking new ideas.
- h) Their sphere of influence and activity often goes beyond the community boundaries.
- i) They have much formal and informal contact outside the immediate locality.
- j) They often by-pass the local extension worker in getting information from the originating sources, and may learn about new things even before he does. They sometimes manage to get samples of seeds or chemicals even before they are released for public use.
- k) They subscribe to many farm magazines and specialised publications.
- l) Other farmers may watch the innovators and know what they are doing but the innovators are not generally named by other farmers as "neighbours and friends" to whom they go for information.

Early Adopter: Respectable

Early adopters are a more integrated part of the local social system than are innovators. Whereas innovators are cosmopolites, early adopters are localities. This adopter's category, more than any other, has the greatest degree of opinion leadership in most social systems. Potential adopters look to early adopters for advice and information about the innovation. The early adopter is considered by many as "the man to check with" before using a new idea. This adopter category is generally sought by change agents to be a local missionary for speeding the diffusion process. Because early adopters are not too far ahead of the average individual in innovativeness, they serve as a role model for many other members of a social system. Members of a social system respect the early adopter. The early adopter is respected by his peers. He is the embodiment of successful and discrete use of new ideas. And the early adopter knows that he must continue to earn this esteem of his colleagues if his position in the social structure is to be maintained.

Characteristics

- a) Younger than those who have a slower adoption rate, but not necessarily younger than the innovators
- b) They are not the persons who test the untried ideas but they are quickest to use tried ideas in their own situations.
- c) Have large farms.
- d) Higher education than those who adopt more slowly.
- e) High income.

- f) They participate more in the formal activities of the community.
- g) They also participate more in government programmes.
- h) This group usually furnishes a disproportionate amount of the formal leadership (elected positions) in the community.
- i) They read papers and farm journals and receive more bulletins than people who adopt later.
- j) They may be regarded as community adoption leaders.

Early Majority: Deliberate (Local Adoption Leaders)

The early majority adopt new ideas just before the average member of a social system. The early majority interacts frequently with their peers, but leadership position; are rarely held by them. The early majority's unique position; between the very early and relatively late to adopt make; them an important link in the diffusion process.

The early majority may deliberate for some time before completely adopting a new idea. Their innovation-decision is relatively longer than that of the innovator and the early adopter. "Be not the last to lay neither the old aside, nor the first by which the new is tried", might be the motto of the early majority. They follow with deliberate willingness in adopting innovations, but seldom lead.

Characteristics

- a) Slightly above average in age, education and farming experience.
- b) They take a few more farm journals and bulletins than the average.
- c) They have medium high social and economic status.
- d) Less active in formal groups than early adopters, but more active than those adopting later.
- e) In many cases, they are not formal leaders in the association
- f) They also attend extension meetings and farm demonstrations.
- g) They are most likely to be informal resources than early adopters and innovators, and so cannot afford to make hasty or poor decisions.
- h) They associate mainly with people of their own community.
- i) They value highly the opinions their neighbours and friends hold about them; for this is their main source of status and prestige.
- j) They are mostly mentioned as "neighbours and friends" from whom the majority of farmers seek information.

Late Majority: Skeptical

The late majority adopt new ideas just after the average member of a social system. Adoption may be both an economic necessity and the answer to increasing social pressures. Innovations are approached with a skeptical and cautious air, and the late majority do not adopt

until most other in their social system have done so. The weight of system norms must definitely favour the innovation before the late majority is convinced. They can be persuaded of the utility of new ideas, but the pressure of peers is necessary to motivate adoption.

Characteristics

- a) Those in this group have less education and are older than the early majority.
- b) They form the major part of formal organisational membership, although they participate less in such formal groups.
- c) They take fewer leadership roles than the earlier adopters.
- d) They take and read fewer papers, magazines and bulletins, than the early majority.
- e) They do not participate in as many activities outside the community as do people that adopt earlier.

Laggards: Traditional

Laggards are the last to adopt an innovation. They possess almost no opinion leadership. They are the most localite in their outlook of all adopter categories, many are near isolates. The point of reference for the laggard is the past. Decisions are usually made in terms of what has been done in previous generations. This individual interacts primarily with others who have traditional values. When laggards finally adopt an innovation, it may already have been superseded by another more recent idea which the innovators are already using. Laggards tend to be frankly suspicious of innovations, innovators, and change agents. Their tradition direction slows the innovation decision process to a crawl. Adoption lags far behind knowledge of the idea. Alienation from a too-fast-moving world is apparent in much of the laggard's outlook. While most individuals in a social system are looking to the road of change ahead, the laggards has his attention fixed on the rear-view mirror.

Characteristics:

- a) Least education.
- b) Oldest.
- c) Participate least in formal organisations, cooperatives and government programmes.
- d) They hardly read farm magazines and bulletins.

Factors Influencing Adoption Process

The Nature of the Practice: The speed with which adoption will take place is partly dependent on the nature of practice itself.

A) Complexity: Generally speaking, the more complex a practice and the more change it requires in the existing operations, the more slowly it will be adopted. The following

classification of practices in terms of their complexity roughly represents the decreasing order of speed with which acceptance may be expected to occur:

- a) **A simple change:** A change in materials and equipment only, without a change in technique or operation (e. g., new variety of seed).
- b) **Improved practice:** Change in existing operation with or without a change in materials or equipment (e. g., change in rotation of crops).
- c) **Innovation:** Change involving new technique or operation (e. g., contour cropping).
- d) **Change in total enterprise:** e. g., from crop to livestock farming.

B) Cost: Those practices which cost little seem to be adopted more rapidly than those which are more expensive.

C) Net returns: Those practices which yield, the greatest marginal returns per rupee invested, and in the shortest time seem to be adopted most readily. The above two characteristics viz., cost and net returns are also referred to as “relative advantage” or “Profitability”.

D) Compatibility: Is the degree to which an innovation is consistent with existing values and past experiences of the adopters. An idea that is not compatible with the cultural norms of a social system will not be adopted so rapidly as an idea that is compatible e. g., the lack of compatibility of beef production with cultural values in India.

E) Divisibility (Trialability): Is the degree to which an innovation may be tried on a limited basis. New ideas that can be tried on a small scale or on the instalment plan will generally be adopted more rapidly than innovations that are not divisible. e. g., new seeds or fertilizers can be tried on a small scale, but new machinery or a thing like cow dung gas plant cannot be so tried.

F. Communicability (Observability): Is the degree to which the results of an innovation may be diffused to others. The results of some practices are easily observed (e. g., application of nitrogenous fertilizer to plants), while the results of some innovations are not easily observed (e. g., pre-treatment of seeds, or soil conservation measures).