

Adoption Diffusion Process

Everett Rogers defined a person's innovativeness as "the degree to which an individual is relatively earlier in adopting new ideas than the other members of his or her social system. According to Rogers (2003), "Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social System." In other words, the study of the diffusion of innovation is the study of how, why, and at what rate new ideas and technology spread through cultures. It applies, for example, to the acceptance of new technological products like the wristwatch and the personal computer, foods like tomato sauce and sushi, music styles like opera and bossa nova, dressing styles like the top hat and blue jeans, ideals like democracy or feminism, and so on. Consumer acceptance of new products and services is studied from the research perspective known as the *diffusion of innovations*.

This diffusion requires an understanding of two related processes

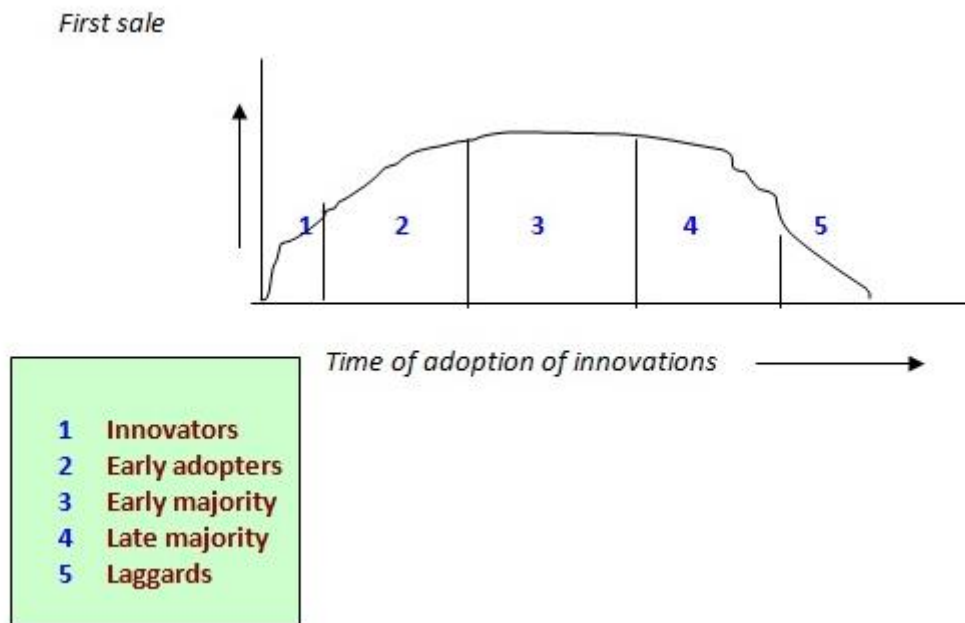
- i) *Diffusion process.*
- ii) *Adoption process.*

Diffusion is a macro process concerned with the spread of a new product (an innovation) from its source to the consuming public. Adoption is a micro process that focuses on the stages through which an individual consumer passes when deciding to accept or reject a new product. Thus the diffusion process refers to the rate at which various members of society adopt a new product.

There are 5 adopter groups who differ in their value orientations and hence adoptions of the innovations:

- Innovators: They are 2.5% of the population. They are venturesome and keen to try out new innovative products; they are usually from higher social and economic backgrounds.
- Early adopters: They are 13.5% of the population. Early adopters share some traits that differentiate them from late adopters. Efficient media should exist for reaching early adopters. Early adopters tend to be opinion leaders and generally guided by respect; thus are quite helpful in advertising the new product to other potential buyers. They adopt new ideas early but carefully. They tend to be younger in age. They must have much favourable financial positions and also may have higher social status. They tend to belong to local groups than innovators, but still purchase early. Their role as opinion leaders who influence later adopter categories is important to marketers.
- Early majority: They are 34% of the population, who are more cautious than the previous group. They are deliberate, rarely the leaders, but adopt new products before the average person. They normally tend to be largely the middle and lower middle class. Now that *the* product has become more widely accepted and consolidated in the market, they feel more complacent about making a purchase and rely largely upon manufacturers' promotional material before they purchase.
- Late majority: They are 34% of the population. They generally belong to working class groups and more cautious and sceptical about purchasing, especially because of financial constraints. They adopt innovation only after a majority of people has tried it. They are, however, subject to social demands and this frequently motivates their first time purchase.
- Laggards: They are 16% of the population. They are very careful, tradition-bound, generally older and usually from the lower social groups. They are suspicious of change and newer things. They adopt innovation when it itself becomes a tradition.

The adopter groups



A final category is the 'non-adopter' group who do not appear in the above categories. They may be a very small portion of target audience, but still form a significant, whatever little part of the market. A relevant example could be a very small section of families who do not purchase televisions to avoid its intrusion into family life.

Diffusion describes the speed of market take-up of the innovation and this will determine the length of the time axis. This rate of adoption is governed by:

- **Relative advantage:** This is how the potential users feel about the new product or service in terms of what it will do for them.
- **Compatibility:** This is how the new product accords with current products in the market.
- **Complexity:** It relates to how complicated the product is. The more complex, the slower will be the rate of diffusion.
- **Divisibility:** This relates to how complicated the product is. The more complex, the slower will be the rate of diffusion.

- **Communicability:** This is also linked to the above and it means the ease at which the new product can be promoted through communication mix activities to potential customers.

Diffusion of Innovations

Consumer acceptance of new products and services is studied from the research perspective known as the **diffusion of innovations**.

- b) This diffusion requires an understanding of two related processes:
 - i) **Diffusion process**
 - ii) **Adoption process**

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Adoption is a micro process that focuses on the stages through which an individual consumer passes when deciding to accept or reject a new product.

In addition to an examination of these two interrelated processes, the chapter presents a profile of **consumer innovators**, those who are the first to purchase a new product.

The ability of marketers to identify and reach this important group of consumers plays a major role in the success or failure of new-product introduction.

The Diffusion Process

1. The diffusion process is concerned with how innovations spread and how they are assimilated within a market.
2. Diffusion is the process by which the acceptance of an innovation is spread by communication to members of a social system over a period of time.
3. There are four elements to the definition:
 - a) The innovation
 - b) The channel of communication
 - c) The social system
 - d) Time

The Innovation

1. There is no universally accepted definition of the terms product **innovation** or new product.
2. There are four approaches to defining a new product or a new service:
 - a) Firm-oriented
 - b) Product-oriented
 - c) Market-oriented
 - d) Consumer-oriented

Firm-Oriented Definitions

1. A **firm-oriented** approach treats the newness of a product from the perspective of the company producing or marketing it.
2. When the product is “new” to the company, it is considered new.
 - a) This ignores whether or not the product is actually new to the marketplace.

3. This definition is not very useful when the goal is to understand consumer acceptance of a new product.

Product-Oriented Definitions

1. This approach focuses on the features of the product itself and the effects these features are likely to have on consumers' established usage patterns.
2. There are three types of product innovations:
 - a) **Continuous innovation**, which is the least disruptive to consumer patterns.
 - b) **Dynamically continuous innovation**, which, although not altering established behaviour patterns, is somewhat more disruptive.
 - c) **Discontinuous innovation**, which requires consumers to adopt new behaviour patterns.

Market-Oriented Definitions

1. This approach judges the newness of a product in terms of how much exposure consumers have to the new product.
2. There are two ways of looking at this orientation:
 - a) The product could be considered to be new if it has been purchased by only a small percentage of the potential market.
 - b) The product could be considered to be new if it has been on the market for a relatively short period of time.
 - c) These are both subjective measurements because the research has to establish the degree of market penetration involved.

Consumer-Oriented Definitions

1. Some market researchers favour this approach to defining an innovation.
 - a) A new product is any product that a potential consumer judges to be new.

- b) The newness is based on consumer perception.
2. Although endorsed by some advertisers and marketers, it has received little systematic attention.
 - a) Additionally, it should be pointed out that although this portion of the chapter deals primarily with what might be described as “purchase” innovativeness (i.e., time of adoption), a second type of innovativeness, “use-innovativeness,” has been the subject of some thought and research.
3. A consumer is being **use-innovative** when he or she uses a previously adopted product in a novel or unusual way.

Product Characteristics That Influence Diffusion

1. Not all new products have equal consumer acceptance potential. As a consequence, marketers try to anticipate consumer acceptance.
2. Researchers have identified five product characteristics that seem to influence consumer acceptance of new products:
 - a) **Relative advantage**—degree to which potential customers perceive a new product as superior to existing substitutes.
 - b) **Compatibility**—degree to which the customer feels the new product is consistent with their present needs, values, and practices.
 - c) **Complexity**—degree to which a new product is difficult to understand or use. Complexity is especially important in dealing with technological fear.
 - d) **Trialability**—degree to which a new product is capable of being tried on a limited basis.
 - e) **Observability**—ease with which a product’s benefits or attributes can be observed, imagined, or described to potential consumers.

Resistance to Innovation

1. Seeking to answer to what makes some new products almost instant successes has marketers looking at the product characteristics of an innovation.
 - a) Such characteristics offer clues to help determine the extent of consumer resistance, which increases when perceived relative advantage, perceived compatibility, trialability, and communicability are low and perceived complexity is high.
2. **Innovation overload** is used to describe the situation in which the increase in information and options available to the consumer are so great that they seriously impair decision-making.

The Channels of Communication

1. How quickly an innovation spreads through a market depends on the degree of communication between marketers and consumers, as well as communication among consumers themselves.
2. A variety of new channels of communication have been developed to inform consumers of innovative products and services.
3. Interactive marketing messages, are where the consumer becomes an important part of the communication, rather than just a “passive” message recipient.
4. The newest and most rapidly growing form of media for word-of-mouth is the podcast, which some consumers are seeking out as an alternative to TV, radio, and print.

The Social System

1. In terms of consumer behaviour, market segment and target market are synonymous with the term **social system** in diffusion research.
2. A social system is a physical, social, or cultural environment to which people belong and within which they function.
3. The social system serves as the boundary within which the diffusion of a new product is examined.

4. The orientation of a social system, with its own special values or norms, is likely to influence the acceptance or rejection of new products.
 - a) If the social system is modern in orientation, the acceptance of innovations is likely to be high.
 - b) If the social system is traditional in orientation, innovations that are perceived as radical or as infringements on established custom are likely to be avoided.
5. One authority describes the characteristics of a typical modern social system in the following terms:
 - a) A positive attitude toward change
 - b) An advanced technology and a skilled labour force
 - c) A general respect for education and science
 - d) An emphasis on rational and ordered causal relationships rather than on emotional ones
 - e) An outreach perspective, in which members of the system frequently interact with outsiders
 - f) A system in which members can readily see themselves in quite different roles
6. The key point is that a social system's orientation is the climate in which marketers must operate to gain acceptance for their new products.

Time

1. Time is the backbone of the diffusion process.
2. Three ways of considering time are important:
 - a) The amount of purchase time
 - b) The identification of adopter categories
 - c) The rate of adoption

Purchase Time

1. This form of time has been characterized as the amount of time that elapses between the consumers' initial awareness of the new product and the point at which they purchase or reject the product.
2. Purchase time is an important concept because the average time a consumer takes to adopt a new product is a predictor of the overall length of time it will take for the new product to achieve widespread adoption.

Adopter Categories

1. The concept of **adopter categories** involves a classification scheme that indicates where a consumer stands relative to other consumers when he or she adopts a new product.
2. Consumers are classified into five adopter categories; **innovators, early adopters, early majority, late majority, and laggards**.
 - a) Some argue that the bell curve (see Figure 15-8) is an erroneous depiction because it may lead to the inaccurate conclusion that 100 percent of the members of the social system under study (the target market) eventually will accept the product innovation.
 - b) The "**nonadopter**" category is in accord with marketplace reality, for not all potential consumers adopt a product innovation.
3. Instead of the classic five-category adopter scheme, many consumer researchers have used other classification schemes, most of which consist of two or three categories that compare **innovators** or **early triers** with **later triers** or **nontriers**.

Rate of Adoption

1. The rate of adoption is concerned with how long it takes a new product or service to be adopted by members of a social system; that is, how quickly it takes a new product to be accepted by those who will ultimately adopt it.
2. In general, the diffusion of products worldwide is becoming a more rapid phenomenon.
3. The objective in marketing new products is usually to gain wide acceptance of the product as quickly as possible.

4. Marketers desire a rapid rate of product adoption to penetrate the market and quickly establish market leadership (obtain the largest share of the market) before competition takes hold.
 - a) A **penetration policy** is usually accompanied by a relatively low introductory price designed to discourage competition from entering the market.
5. Rapid product adoption also demonstrates to marketing intermediaries (wholesalers and retailers) that the product is worthy of their full and continued support.
6. Under certain circumstances, marketers might prefer to avoid a rapid rate of adoption for a new product.
 - a) For example, marketers who wish to use a pricing strategy that will enable them to recoup their development costs quickly might follow a **skimming policy**.

The Adoption Process

1. The second major process in the diffusion of innovations is **adoption**.
2. The focus of this process is the stages through which an individual consumer passes: in arriving at a decision: to try or not to try; to continue using or to discontinue using a new product.

Stages in the Adoption Process

1. It is often assumed that the consumer moves through five stages in arriving at a decision to purchase or reject a new product: (1) awareness, (2) interest, (3) evaluation, (4) trial, and (5) adoption (or rejection).
2. These are called the **stages in the adoption process**.
3. Although the traditional adoption process model is insightful in its simplicity, it does not adequately reflect the full complexity of the consumer adoption process.
 - a) It does not adequately acknowledge that there is quite often a need or problem-recognition stage that consumers face before acquiring an awareness of potential options or solutions.

- b) Also, the adoption process does not adequately provide for the possibility of evaluation and rejection of a new product or service after each stage, especially after trial.
 - c) It does not explicitly include post-adoption or post-purchase evaluation.
4. The adoption of some products and services may have minimal consequences, although the adoption of other innovations may lead to major behavioural and lifestyle changes.

The Adoption Process and Information Sources

1. The adoption process provides a framework for determining which types of information sources consumers find most important at specific decision stages.
2. The key point is that impersonal mass-media sources tend to be most valuable for creating initial product awareness.
 - a) As a result, the relative importance of these sources declines although the relative importance of interpersonal sources increases.

A Profile of the Consumer Innovator

Defining the Consumer Innovator

1. Consumer innovators can be defined as the relatively small group of consumers who are the earliest purchasers of a new product.
 - a) The problem with this definition is the concept “earliest.”
 - b) Innovators are defined as the first 2.5 percent of the social system to adopt an innovation.
2. In many marketing diffusion studies, however, the definition of the consumer innovator has been derived from the status of the new product under investigation.
 - a) Other researchers have defined innovators in terms of their innovativeness, that is, their purchase of some minimum number of new products from a selected group of new products.

3. Non-innovators would be defined as those who purchase none or only one of the new fashion products.

Interest in the Product Category

1. Consumer innovators are much more interested than either later adopters or non-adopters in the product categories that they are among the first to purchase.
2. Consumer innovators are more likely than non-innovators to seek information concerning their specific interests from a variety of informal and mass media sources.
3. They are more likely to give greater deliberation to the purchase of new products or services in their areas of interest than non-innovators.

The Innovator is an Opinion Leader

1. There is a strong tendency for consumer opinion leaders to be innovators.
2. Consumer innovators provide other consumers with information and advice about new products. Those who receive such advice frequently follow it.
3. The consumer innovator often influences the acceptance or rejection of new products.
4. When innovators are enthusiastic about a new product and encourage others to try it, the product is likely to receive broader and quicker acceptance.
5. Because motivated consumer innovators can influence the rate of acceptance or rejection of a new product, they influence its eventual success or failure.

Personality Traits

1. Consumer innovators generally are **less dogmatic** than non-innovators.
2. Consistent with their open-mindedness, it appears that innovative behaviour is an expression of an individuals' **need for uniqueness**.
3. Still further, consumer innovators all differ from non-innovators in terms of **social character**.

4. Consumer innovators are **inner-directed**.
 - a) In contrast, non-innovators are other-directed.
 - b) The initial purchasers of a new line of automobiles might be inner-directed, whereas the later purchasers of the same automobile might be other-directed.
 - c) This suggests that as acceptance of a product progresses from early to later adopters, a gradual shift occurs in the personality type of adopters from inner-directedness to other-directedness.
5. There also appears to be a link between **optimum stimulation level** and consumer innovativeness.
 - a) Individuals who seek a lifestyle rich with novel, complex, and unusual experiences (i.e., high optimum stimulation levels) are more willing to risk trying new products, to be innovative, to seek purchase-related information, and to accept new retail facilities.
6. **Variety-seeking consumers** tend to be brand switchers and purchasers of innovative products and services.

Perceived Risk and Venturesomeness

1. **Perceived risk** is the degree of uncertainty or fear about the consequences of a purchase that a consumer feels when considering the purchase of a new product.
2. Research on perceived risk and the trial of new products overwhelmingly indicates that the consumer innovator is a low-risk perceiver; that is, they experience little fear of trying new products or services.
3. **Venturesomeness** is a broad-based measure of a consumer's willingness to accept the risk of purchasing new products.
 - a) Measures of venturesomeness have been used to evaluate a person's general values or attitudes toward trying new products.
 - b) A typical measurement scale might include such items as:
 - i) I prefer to: (try a toothpaste when it first comes out) (wait and learn how good it is before trying it).

- ii) When I am shopping and see a brand of paper towels I know about but have never used, (I am very anxious or willing to try it), (hesitant about trying it), (very unwilling to try it).
 - iii) I like to be among the first people to buy and use new products that are on the market (measured on a five-point “agreement” scale).
- c) Venturesomeness seems to be an effective barometer of actual innovative behaviour.

Purchase and Consumption Characteristics

1. Consumer innovators are **less** brand loyal.
2. Consumer innovators are more likely to be deal-prone.
3. Consumer innovators are also likely to be heavy users of the product category in which they innovate.
 - a) Specifically, they purchase larger quantities and consume more of the product than non-innovators.
4. Finally, for products like VCRs, PCs, microwave ovens, 35-mm cameras, and food processors, usage variety is likely to be a relevant dimension of new product diffusion.
5. To sum up, a positive relationship exists between innovative behaviour and heavy usage.

Media Habits

1. Comparisons of the media habits of innovators and non-innovators across such widely diverse areas of consumption as fashion clothing and new automotive services suggest that innovators have somewhat greater total exposure to magazines than non-innovators, particularly to special-interest magazines devoted to the product category in which they innovate.
2. Consumer innovators are also less likely to watch television than non-innovators.

- a) Studies concerning the relationship between innovative behaviour and exposure to other mass media, such as radio and newspapers, have been too few, and the results have been too varied to draw any useful conclusions.

Social Characteristics

1. Consumer innovators are more socially accepted and socially involved than non-innovators.
 - a) This greater social acceptance and involvement of consumer innovators may help explain why they function as effective opinion leaders.

Demographic Characteristics

1. It is reasonable to assume that the age of the consumer innovator is related to the specific product category in which he or she innovates.
 - a) Research suggests that consumer innovators tend to be younger than either later adopters or non-innovators.
 - b) This is probably because many of the products selected for research attention are particularly attractive to younger consumers.
2. Consumer innovators have more formal education, higher personal or family incomes, and are more likely to have higher occupational status (to be professionals or hold managerial positions) than later adopters or non-innovators.

Are There Generalized Consumer Innovators?

1. Do consumer innovators in one product category tend to be consumer innovators in other product categories?
 - a) The answer to this strategically important question is a guarded “No.”
 - b) The overlap of innovativeness across product categories, like opinion leadership, seems to be limited to product categories that are closely related to the same basic interest area.

- c) Such a pattern suggests that it is generally a good marketing strategy to target a new product to consumers who were the first to try other products in the same basic product category.

Technology and Innovators

1. There is evidence that suggests that a new type of more generalized “high-tech” innovator does exist, that is, the “change leader.”
 - a) Such individuals tend to embrace and popularize many of the innovations that are ultimately accepted by the mainstream population.
 - b) They tend to have a wide range of personal and professional contacts representing different occupational and social groups; most often, these contacts tend to be “weak ties” or acquaintances.
2. Change leaders also appear to fall into one of two distinct groups:
 - a) A younger group can be characterized as being stimulation-seeking, sociable, and having high levels of fashion awareness.
 - b) A middle-aged group is highly self-confident and has very high information-seeking needs.
3. Similar to change leaders, “technophiles” are individuals who purchase technologically advanced products soon after their market debut.
 - a) Such individuals tend to be technically curious people.
 - b) Another group responding to technology are adults who are categorized as “techthusiasts”—people who are most likely to purchase or subscribe to emerging products and services that are technologically oriented.
 - i) These consumers are typically younger, better educated, and more affluent.
4. Advancing our understanding of the relationship between technology and consumer innovation has been explored within the context of the technology acceptance model (TAM).
5. The most powerful determinant of attitudes toward usage was the “fun” of using the device.

6. The implication for marketers is clear—a consumer may purchase a new bit of technology more for the fun they can have with the device than for the ability it gives them to accomplish particular functions.
7. Research conducted with over 500 adult Internet users found that purchasing online was positive related to technology-related innovativeness.

