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A.12 New Product Adoption

CHARACTERISTICS OF THE NEW PRODUCT ADOPTION PROCESS

Modern knowledge of new product adoption stems from the work of rural sociologists who studied the adoption of innovations among farmers. Marketers have applied this adoption concept to the acceptance of new products.

Description of the Concept. The new product adoption process is also referred to as the diffusion process, although the connotation of the two terms is somewhat different. To marketers, **new product adoption** refers to the process that consumers go through in learning about and coming to use a new product. **Diffusion** views adoption from the marketer's point of view as the process by which new product knowledge spreads from the new product marketer to the consumer.

New product adoption takes place over time rather than all at once. Initially adoption is slow as only innovative persons try the product, but the rate of adoption increases as less innovative persons are drawn into the market. As adoption approaches saturation, the rate of adoption again decreases. This process is shown as an S-shaped curve in Figure A.12-1.

The new product adoption curve is not

the same as the **product life cycle** (GLOSSARY entry A.15), but is closely related to it. The product life cycle is driven by changes in the competitive structure of a market. The adoption process describes changes taking place in consumer use of a product during the introduction and growth stages of the product life cycle.

Everett Rogers defines the diffusion process as having four elements. He says that diffusion is the process by which "(1) an innovation (2) is communicated through channels (3) over time (4) among members of a social

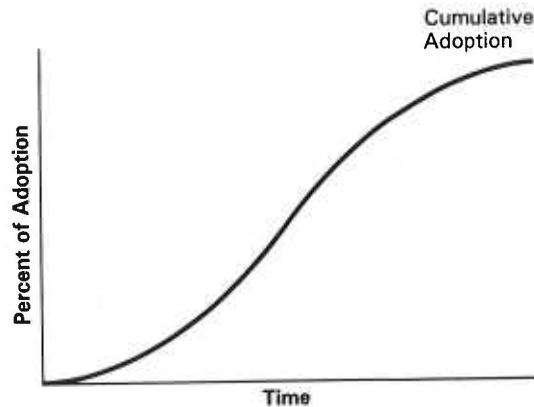


FIGURE A.12-1
The Adoption Curve

system."¹ These four elements—innovation, communication channels, time, and social system—provide the structure for the explanation of the concept presented below.²

Characteristics of Innovations. In diffusion research, an **innovation** is an idea, practice, or product that is perceived as new by individuals. In its marketing application, diffusion is concerned with the adoption of new products, and the principal application of the concept is to decisions concerning **new product introduction** (see GLOSSARY entry C.18).

The way that potential adopters perceive an innovation or new product influences the rate at which it will be adopted.

- **Relative Advantage.** The greater the perceived advantage of a new product over the product that it replaces, the faster it will be adopted.
- **Compatibility.** The more consistent an innovation is to the values, experiences, and needs of potential adopters the faster it will be adopted.
- **Complexity.** The more complex an innovation is perceived to be and the more difficult it is to understand and use, the slower will be the adoption.
- **Trialability.** The easier it is to sample or try out a new product, the more quickly it will be adopted.
- **Observability.** When the results of adopting a new product are visible to nonadopters or can be demonstrated to nonadopters, communication concerning the innovation will be stimulated. This tends to speed up adoption.

Communication Channels in New Product Adoption. Diffusion occurs as the result of the exchange of information among individuals. Communications channels are the vehicles through which information about innovations flow. One communication channel is the mass media such as newspapers and television. Advertising uses the mass media. An

alternative communication channel is interpersonal communication. Word-of-mouth flows through interpersonal channels.

Diffusion research suggests that both mass media and interpersonal channels play a role in the adoption of innovations. Mass media are most effective in creating awareness and knowledge about an innovation while interpersonal channels are more effective in forming attitudes and in shaping the decision to adopt.

Time and the Rate of Adoption. In most diffusion research, the dependent variable is time of adoption. The speed with which a new product is adopted is a measure of its success. The rate of adoption is influenced by three factors: (1) the stages that an individual goes through in adopting a product, (2) the innovativeness of individuals in the process, and (3) the resulting cumulative rate of adoption by the total market.

In adopting an innovation or a new product, individuals go through a five-step decision-making process that is similar to the **consumer decision-making process** presented in GLOSSARY entry A.2. The steps in the adoption process as proposed by Rogers are:

- **Knowledge.** The process starts when the prospective adopter is first exposed to the innovation and gains an understanding of it.
- **Persuasion.** The individual next forms a favorable or unfavorable attitude toward the product. This occurs as a result of seeking information about the innovation.
- **Decision.** The individual decides to adopt the innovation or reject it.
- **Implementation.** Here the individual puts the innovation to use resulting in use experience.
- **Confirmation.** The result of use experience can be satisfaction resulting in continued use of the innovation or dissatisfaction leading to discontinuance. Adopters are also likely to experience dissonance leading them to seek evidence confirming their decision.

Individuals vary in their innovativeness and this influences the speed with which an innovation is adopted. Rogers divides adopt-

¹Everett M. Rogers, *Diffusion of Innovations*, 3d ed. (New York: Free Press, 1983), p. 10.

²The description that follows, except where noted, is based on Rogers, *Diffusion of Innovations*.

ers into five categories according to their receptivity to innovation.³

- *Innovators.* The first 2½ percent of the adopters are classified as **innovators**. They are characterized as venturesome, eager to try new products, and willing to take risks. Innovators are cosmopolitan rather than local in their social relations. They are financially able to absorb the risk of occasional failure.
- *Early Adopters.* The next 13½ percent of adopters, classified as **early adopters**, are characterized as "respectable." Early adopters are well integrated into local society and sought out as a source of advice. They tend to be opinion leaders. They tend to be younger than average and come from a higher socioeconomic class.
- *Early Majority.* The next 34 percent of adopters are the **early majority**. They are characterized as "deliberate," taking longer to consider adopting an innovation and following the lead of the early adopters. Early majority members are socially well integrated, but seldom take leadership positions. Their socioeconomic position is average.
- *Late Majority.* The **late majority** makes up 34 percent of the adopter group. They are characterized as "skeptical." They are cautious and later than average in adopting innovations, yielding eventually to social and economic pressures. They tend to be older and have less education than the average.
- *Laggards.* The last 16 percent to adopt are termed **laggards**. They are characterized as "traditional" in their outlook. They tend to be socially isolated and are influenced in their decision making by what has been done in the past. They resist innovations, partly because their low economic status forces caution.

The adopter categories illustrate that not all individuals adopt an innovation at once, but that people are gradually drawn to the new product. The speed with which people adopt an innovation determines the **rate of adoption**. When plotted, the rate forms an S-shaped curve such as the one shown in Figure A.12-1. The steepness of the curve varies with the speed of adoption.

The Social System in the Adoption Process.

The adoption of innovations takes place within a social system that can speed up or slow down the diffusion process. The social system defines the boundaries within which the adoption process takes place. The flow of communication, which is the driving force of adoption, is determined by the interpersonal structure within the social system.

Two factors within the social system influencing adoption are social system norms and opinion leadership. Social system norms define socially acceptable behavior. Social system norms can encourage innovative behavior or they can discourage change and thus retard the adoption process.

Opinion leaders facilitate the diffusion process by serving as a credible source of information about innovations. While earlier adopters gain their information from mass media sources, the later adopters are more influenced by information gained from the experience of these more innovative persons. These opinion leaders tend to serve as mediating influences between the mass media and the later adopters. They represent a socially acceptable model of behavior. Rogers suggests that opinion leaders tend to be more exposed to mass media communication, be more cosmopolitan, have higher social status, and be more innovative. Opinion leaders often come from the early adopter category.

APPLICATION OF NEW PRODUCT ADOPTION TO MARKETING DECISION MAKING

The diffusion of innovations is not a marketing-originated concept. Rogers estimates that only 8 percent of the empirical research on diffusion has been done by marketers.⁴ Nonetheless, the concept is helpful in marketing decision making, particularly in problems of **new product introduction** since, as

³See also, *The Adoption of New Products* (Ann Arbor, Mich.: Foundation for Research on Human Behavior, 1959).

⁴Everett M. Rogers, "New Product Adoption and Diffusion," *The Journal of Consumer Research* 2 (March 1976), p. 290.

Rogers notes, the adoption of an innovation usually involves the purchase of a new product. (See GLOSSARY entry C.18 on **new product introduction**.)

The Role of Advertising in New Product Introductions. The new product adoption concept makes two suggestions regarding the use of mass media advertising in the new product introduction program. First, advertising is most influential in the adoption process at the first stage of building knowledge about the innovation. Personal influence is more important in the formation of attitudes toward the innovation and in the final decision to adopt it. This means that during a new product introduction, advertising should play an informational role, especially early in the introduction, but that it must be complemented in the **promotional mix** by personal influence. Personal influence might be offered in the form of personal selling support for the product or by attempting to create and influence opinion leaders.

The second suggestion from the new product adoption concept is that prospective adopters, especially after the early adopters, may be more influenced by opinion leaders than by mass media.⁵ Opinion leaders receive information from the mass media, interpret it, and pass it along to the masses together with their own experiences. This is termed the **two-step flow of communication** (see GLOSSARY entry A.5). This suggests that during new product introduction mass media advertising should be weighted toward opinion leaders, where they can be identified, rather than toward the mass market. The difficulty lies in the fact that opinion leaders are dispersed throughout the market and are often not differentiated by readily measurable characteristics.

Identifying the Target Market for New Products. The new product adoption concept

suggests that the key to new product acceptance is gaining adoption by early adopters. Early adopters serve as socially visible examples of successful application for the total group of potential adopters and are the usual source of opinion leaders, exercising personal influence among the later adopters.

The problem in targeting potential early adopters is, again, one of identification. Diffusion research does suggest some of the characteristics of innovative people that can be helpful in targeting. They tend to have better than average education, be integrated and involved in their social group, be community leaders, have higher socioeconomic status, and have greater upward social mobility.

Webster has attempted to isolate the characteristics of industrial firms that make them likely to be early adopters of innovations and, hence, desirable target markets for new products.⁶ He suggests four characteristics. Innovative firms are ones that (1) expect the largest incremental profit from the innovation, (2) can best tolerate the risk because of size, liquidity, and self-confidence, (3) demonstrate a high level of aspiration through a successful sales and profit record, and (4) place high value on information relating to the innovation.

Evaluation of New Products. One measure of the success of a new product is the speed with which it is adopted. Unlike the agricultural innovations on which the concept was based, most marketing innovations never attain 100 percent adoption.⁷ For these products, the degree of adoption and the speed of adoption may be comparable.

The characteristics of an innovation that influence its rate of adoption can be directly used as criteria for the evaluation of new product candidates. These criteria suggest

⁵See Thomas S. Robertson, "The Process of Innovation and the Diffusion of Innovation," *Journal of Marketing* 31 (January 1967), pp. 14-19.

⁶See Frederick E. Webster, Jr., "New Product Adoption in Industrial Markets: A Framework for Analysis," *Journal of Marketing* 33 (July 1969), pp. 35-39.

⁷Suggested by Robertson, "The Process of Innovation," p. 17.

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that a new product is more likely to be successful if

1. It offers a large relative advantage over the product that it replaces;
2. It is not a great departure from the user's past experience and values;
3. It is not too complex and difficult to understand;
4. It is easy to sample or try on a limited scale;
and
5. The benefits are easily observed or demonstrated.

SUGGESTIONS FOR FURTHER READING

The Adoption of New Products. Ann Arbor, Mich.: Foundation for Research on Human Behavior, 1959.

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