Rogers Five Factors

Idea In Short

Rogers's diffusion work illustrates a number of basic factors that go beyond simple product marketing techniques, and are required to facilitate true change in education. Innovators would be wise to understand and position their products with these factors in mind. His classic book Diffusion of Innovations provides more details and is a good guide to making things that people will want to use in the modern era. Faced with a dynamically changing environment, marketers are always with regard to new product development. This could result in modification ranging from slight to moderate to large or the continuum, or even result in totally new product and service offerings. The two questions that face a marketer are:

1. Whether the modified/new product and service offering would be accepted by the segment
2. How quickly would the product and service offering be accepted by the segment[s]

While the first pertains to what is referred to as diffusion, the second pertains to what is known as adoption. The two concepts, the dynamics and the implications for a marketer are explained in this article. In this article we have focused on the below mentioned two objectives:

- Factors affecting Diffusion of Innovation/Adoption Process: Triggers and Barriers
- Diffusion and Adoption, and the Implications for a Marketer

The Diffusion of Innovations theory, developed by Everett Rogers, provides a tried-and-true framework for identifying some of the factors that may have influenced an innovation's success or failure. Rogers was a driving force behind the creation of this comprehensive investigation of how innovations are presented to and adopted by potential consumers. Rogers developed a system for comparing a large number of inventions using a common vocabulary and set of metrics. "The process by which an innovation is conveyed through

specified channels over time among the members of a social system," he defined diffusion. His work had a huge impact beyond crop circles, and many of the terminology he employed have become conventional business jargon. He utilized terminology like innovators, early adopters, the majority, and laggards to describe the many types of possible users of a given innovation, and these categories are now commonly used to characterise market segments in all industries. Rogers began his research by looking into how American farmers were able to successfully adopt agricultural advances established at land-grant universities. Rogers discovered that innovations with these five characteristics:

1. Relative advantage
2. Trialability
3. Observability
4. Compatibility, and
5. Complexity

Factors Affecting Adoption Process

The above sections have explained the diffusion and adoption processes in detail; however, the diffusion of innovation and an adoption as a process is not generic; it varies from product to product and or service to service. Some product or service offerings gain quick acceptance, and the diffusion is fast and rapid; for other products and services, the process may be slow and take considerable amount of time. For example, the color TVs in India took a long time to get diffused, but for the satellite TV, the rate of diffusion was very fast. Also, the cordless telephone took a long time to get diffused into Indian homes, but the cell phone got readily accepted by all and diffusion was very fast. Thus, all products or services that are "new", do not possess the same ease and potential for consumer acceptance. Diffusion of innovation and subsequent adoption is impacted by socio-economic, cultural, technological as well as legal factors; it is also impacted by individual determinants like psychological variables and demographics; these are all forces are in most cases "uncontrollable" by the marketer. There are also the more relevant forces, related to the innovative product and /or service which constitute what is called the "controllables", and which are in the hands of the marketer; these could be in the form of marketing communication or interpersonal communication etc and could be used by the marketer in a manner that facilitate quicker and easier acceptance of the innovative offering. Apart from these, there are also certain characteristics that an innovation possesses that can impact the diffusion and adoption process. Researchers have identified certain factors that can act as

triggers and some that can act as barriers to the diffusion and adoption process.

Triggers to the Diffusion of Innovation Process

There are certain product and service characteristics that affect the diffusion process and can influence consumer acceptance of new products and services; the five factors that can impact the diffusion process and the rate of adoption are relative advantage, compatibility, complexity, trial-ability, and observability.

Relative advantage

The relative advantage of the innovative product/service offering over already existing products/services, accelerates its rate of adoption by the target market. The degree to which customers perceive a new product/service as superior to similar existing products determines the relative advantage. A product/service that provides advantage over other existing products is indicative of being superior to existing alternatives, and thus higher in terms of "value". The more radical a change, and the higher the relative advantage, the faster would be the diffusion. The relative advantage may lie in terms of it being a modified product (with better features, attributes, benefits, form etc), or at a lower price (better deals, discounts, terms of payment, warranty and exchange), or more accessible in terms of availability (physical store format, or virtual electronic format), or better communication. Thus, while product-based advantages are more attractive in nature, the other components of the marketing mix like price, place and promotion can also provide a basis for relative advantage. Examples of innovations that provide relative advantage are, flash drives versus compact discs, laptops versus computers, or digital libraries versus traditional libraries, ATMs versus bank teller counters.

Compatibility

The compatibility of the innovative product and service offering with the existing backgrounds, behavior and lifestyle patterns of consumers also affects its adoption by the consuming public. The compatibility of a product/service measures how closely it relates to needs, value systems and norms, lifestyles, culture etc. The higher the level of compatibility, the quicker the diffusion; and the lower the compatibility, the slower the diffusion. A product will diffuse more quickly if it does not require consumers to change their values, norms, lifestyles, cultures and day to day behaviors. Continuous and dynamically continuous innovations are higher on compatibility than discontinuous innovations. Fast food in the form

of pizzas, burgers, noodles etc. took considerable amount of time to get diffused into the Indian society, as it contrasted heavily with the dal roti meal concept. The pace of adoption quickened in the 1990s and more so in the 2000s with the new generation, and their preference towards packaged foods and fast food. Another example that can be mentioned here is, coconut oil as a medium of cooking would be incompatible to people staying in North India. Even if positioned as "healthy and natural cooking medium", it would be slow to penetrate and may even fail if launched in North India. The same would penetrate easily in South India, as it is culturally more compatible.

Complexity

The level of complexity in a product purchase and usage also affects the diffusion process. An innovative offering would be easily diffused when there is ease of understanding, purchase and use. The easier it is to understand and use a product, the more likely it is to be accepted quickly, and vice versa. While speaking of complexity, technological complexity acts as a barrier to diffusion. People resist adoption of new products because of fear of complexity in purchase and usage. This is well understood by high tech industries. Let us take the example of the electronic goods industry, eg microwave owens or vacuum cleaners. While designing their communication, the marketer illustrates ease of use, so as to encourage quicker acceptance; prospects are provided with demos and trials; once purchased, arrangements are made for providing installation at home. Another example is the mobile phone industry; realizing the problem of complexity, simpler models are introduced for those who desire the mobile set just for making and receiving calls and sms's. It would be noteworthy to mention here that the youth are more techno savvy and have accepted electronic goods like MP3s and 4s, laptops, I-pods, ATMs etc much faster than the older generation. This is because the former have been able to deal with the complexity with a higher level of comfort than the older generation.

Trialability

The ease with which the product or service can be tested and tried also determines the rate of acceptance. The higher the degree of trialability, the greater would be the rate of diffusion. This is because the prospects get an opportunity to try the product/service, assess it and decide to accept/reject it. Trialability can be encouraged by providing free samples, or providing smaller packs and smaller-than-average sizes, (for FMCG and household goods) or even through demos and test- runs (for consumer durables).

Consumers could try out the innovative offering, evaluate it and then decide on a purchase commitment by accepting/rejecting it. Trials leading to purchase can be encouraged through guaranty and warranty schemes. Such trials encourage a product/service to be diffused easily.

Observability

Observability refers to the ease with which the product can be observed. Observability in an innovative product refers to the degree to which a product/service's benefits can be observed, imagined and perceived by a potential consumer. The higher the degree of observability, the greater the chances of the innovative offering being accepted by the prospects. Those new product offerings that are i) tangible, ii) have social visibility, and iii) whose benefits are readily observed (without much time gap), are more readily diffused than those that are intangible, or have no social visibility or whose benefits accumulate over long periods of time. Thus, relative advantage, compatibility, complexity, trialability, and observability have an impact on the rate of diffusion. While all these factors relate to the product, they are dependent on consumer perception. A product/service offering that is relatively superior to existing ones, is more compatible to existing consumption behavior and usage, is less complex, easy to use and observable, is more likely to be purchased quickly by the public, than when it is not.

Barriers to the Diffusion of Innovation Process

There are also certain factors that negatively affect diffusion of innovation and subsequently the adoption process. These barriers have been dealt with extensively by consumer researchers and incorporated even in models on innovation resistance. They could range at the micro level from product characteristics, to the more macro, socio-cultural, economic, situational and technological forces. While product characteristics like relative advantage, compatibility, trialability, and observability, do boost the rate of diffusion and adoption, perceived complexity in purchase and usage of innovative offerings, retard the process. Innovations could also meet resistance from socio-cultural, economic, situational and technological forces. The innovative offering may not with compatible with social norms, values and lifestyle; or may not go well with the economic strata; or be technologically complex, leading to fear to usage, obsolescence and risk. The basic barriers to the diffusion process and subsequent adoption are as usage, value, risk and psychological factors.

Usage

"Usage" as a barrier to innovation diffusion and adoption is said to exist when the social system (the target market) finds it incompatible to the existing usage and consumption behaviors and thus, finds it difficult to accept and use; in other words, they .find it to be incompatible with their existing behaviors. The barrier is more psychological, based on deep rooted values, beliefs, attitudes and perception, resultant in such behavior of non-acceptance and non-usage. For example, people are often reluctant to enter into online monetary transactions for fear of loss of privacy and fraud. Communication from the marketer based on rational and informational may not be sufficient to overcome such a barrier; he would need to use credible spokespersons, celebrities and experts to motivate people to change their existing lifestyle patterns and resultant behavior, and adopt the innovation.

Value

Consumers could also resist acceptance of an innovation, as they may feel low about the perceived value; consumers may perceive the new product/service offering to be the same as existing offerings, and "nothing new" or "better in value." For example, while assessing mobile charges, people compare the post-paid plans with the pre-paid plans in terms of rental as well as call charges, and conclude that the former are cheaper, inspite of rental being high. The perceived lack of value may be i) the product/service does not provide much benefit over the existing alternatives; ii) the product/service is costly, and doesn't seem to be of worth the price. Consumers' perception of "high price" always takes over the perception over product value or product benefit; in fact, values is always assessed in terms of price; Also, price is a "catchy" issue than the benefits attached; price appears more tangible, than benefits; and, consumers generally tend to know more quickly about price, than they do about the benefits that the product brings along with it.

Risk

Risk also acts as a barrier to diffusion of innovation. Consumers show reluctance to use an innovative product/service offering out of fear of taking risks. There could be six types of risks that a consumer could face, viz., functional risk (would the product perform as expected), physical risk (would the product usage and or consumption pose a threat), social risk (would it cause risk of social embarrassment), financial risk (would the product will be worth the cost), psychological risk (would the innovation hurt consumers' ego), and time risk (would it lead to wastage of time spent while making the purchase). The perceived risk

barrier acts as a big barrier to the diffusion and adoption process; consumers are fearful of purchase, usage and consumption of innovative offerings, and thereby continue to patronize the existing alternatives, rather than adopt new ones (for fear of making a wrong decision). In order to overcome this problem, the marketers could make use of both marketing communication (via audio-visual or print media, or company salespersons), as well as interpersonal communication (opinion leadership, word-of-mouth communication). Trials (free or discounted) as well as interpersonal communication with peers, colleagues and friends can also encourage personal experience by the consumer and help overcome this risk.

Psychological factors

Psychological factors also prevent a consumer from adopting a new product/service offering. These factors relate to a person's background, attitude and belief, perception, values, lifestyles, culture etc. They may find the innovation to be psychologically threatening. The two common threats are:

1. Tradition barrier, and
2. Image barrier

Tradition barrier

Tradition barrier relates to socio-culturally accepted norms of behavior that are regarded as "right and appropriate," by the consumer segment. Anything that is new and does not support traditional patterns is regarded as psychologically threatening; this includes usage and adoption of innovative products and services. For example, wearing western outfits is a taboo for women in the Middle East, and as such they would never attempt to wear skirts or trousers. Another example, Kelloggs Cornflakes, found it difficult to penetrate the Indian soil, primarily because it was positioned as a quick breakfast cereal to be had in cold milk, as opposed to the traditional Indian concept of cornflakes or cereal in hot milk.

Image barrier

Image barrier refers to the consumer's attitude and feelings about the product/service offering, the brand, or the dealer, or even the country of origin. It also relates to personality and self-image (actual and ideal). Consumers' may resist adoption of new products/services if they are patriotic and ethnocentric; or if they do not regard the innovation or the

marketer/dealer to be of their "class" in terms of socio-economic status or even quality. Thus, marketers try to come up with variants in offerings, and have separate names for separate variants depending upon the segment[s] for which they are aimed.

Implications for a Marketer

Diffusion of Innovation and Adoption, are important subjects that needs to be addressed by a marketer. While the first pertains to whether the modified/new product and service offering would be accepted by the segment[s], the second pertains to how quickly would the product and service offering be accepted by the segment[s]. The marketer needs to understand the dynamics of the two processes, so as to be able to plan his marketing mix and his strategies. While the initial objective to target the innovators, the early adopters and the early majority cannot be ignored. The various categories of the consumers have to be dealt with separately. While innovators can be lured through rational and logical messages over print media, with fact bearing messages, the rest have to be lured with social and emotional appeals, with emotional messages over the audio visual. The innovators, later on begin to take the role of opinion leaders. They can be used by marketers to their advantage; but this could happen only if the innovators are happy and satisfied with the innovative product/service offering. The marketer also needs to understand the stages of adoption; and the objective of the marketer should be to first make the consumer aware of the innovative offering, and then elicit a trial that is satisfying. He should help the consumer move through these stages. He could encourage trial through free samples, small packs or even discounts. Once the consumer finds the experience satisfying, he would move towards purchase, and repurchase, and end up being loyal.

Case Study - Apple's Brand Ecosystem

Rogers identified five factors that influence a person's decision to accept or reject a new technology. Here's how Apple cleverly utilizes this (From Diffusion of Innovations).

Relative Advantage

How much better an innovation is than the one before it? Is the new iPad, for example, significantly superior than the previous model? Over a computer? Rather than a Microsoft or Amazon offering, why not combine the two?

Compatibility

The degree of compatibility with which an innovation must be integrated into a person's life. In other words, how difficult will it be to incorporate this into my regular routine? "A thousand songs in your pocket," Steve Jobs famously declared when unveiling the iPod to the world.

Complexity

If an innovation is too complicated to utilise, it is unlikely to be adopted. Consider the differences between touchscreen interfaces and multiple menus: We're pressed for time. We're slackers. We don't want to consider anything. Tap a button to open an app – an iPhone is so simple to use that even toddlers can do it.

Trialability

The ease with which an innovation can be tested when it is implemented. If a user finds it difficult to utilise and test an innovation, he or she is less likely to accept it. Is there a sandbox where I can test it out first? Consider the Apple retail store experience, which is meant to encourage users to interact with all of the devices in a casual environment.

Observability

The degree to which an innovation can be seen by others. A more visible innovation will encourage communication among that person's peers and personal networks, resulting in more positive or negative reactions. Consider the omnipresent white headphones that accompanied Apple's first print campaign and demonstrated how someone was listening to an iPod to the rest of the world.

Summary

The “diffusion of innovations” theory or Rogers' 5 factors, attempts to identify and explain the factors that lead to people and groups adopting innovations (new ideas and technologies). These factors help explain why some products diffuse rapidly and some slowly or not at all and they go beyond simple product marketing techniques and are

required to facilitate true change. Innovators would be wise to understand and position their products with these factors in mind and are much likely to study.