

Bringing Innovations to Mainstream Markets

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Abstract

Most technologists believe that innovations with obvious advantageous will automatically sell themselves. (“Build a better mousetrap and the world will beat a path to your door.”) Unfortunately, this is rarely the case. In fact, history is littered with promising innovations and companies that never made it into mainstream markets.

A model of the technology adoption life cycle was established in the early 1960’s. A bell curve describes the progression of market penetration as well as the divisions of buyer categories (i.e., from innovators to laggards). Progressing beyond the innovators and early adopters (i.e., the early portion of the bell curve) into the mainstream majority markets (i.e., the central portion of the curve), is not a simple or straightforward process. In fact, the necessary steps usually run counter to most management beliefs. Organizations that do not understand these concepts, and choose not to embrace certain techniques, run the risk of dying on the vine and never seeing profitability and the light at the end of the tunnel.

The concepts presented are covered in Geoffrey Moore’s textbook “Crossing the Chasm”.

Introduction

Innovations do not sell themselves. Some are simply not accepted. Take for example the Dvorak keyboard. The standard typewriter/computer keyboard is referred to as a QWERTY keyboard due to the layout of the first six keys in the upper left row of letters. Many might think this was chosen as the most efficient layout. Surprisingly, just the opposite is true. Over 100 years ago early typewriters were so bulky and slow that most typists caused the keys to jam. The keyboard was thus literally ‘anti-engineered’ to make the most common letter sequences as awkward as possible, making it more difficult to jam the keys. This layout has remained ever since, even though a much more efficient layout has been available for 60 years. In the 1930’s, an efficiency expert, August Dvorak, produced a layout that resulted in 50% greater accuracy, 20% greater speed, and much less physical strain than the QWERTY layout. Unfortunately, vested interests of manufacturers, sales outlets, typing teachers, and typists themselves held onto the old design.

Many other innovations are accepted at a disappointingly slow rate. Take for example the use of citrus fruit in the prevention of scurvy. In the early days of long sea voyages, scurvy was the number one killer of sailors. For instance, when Vasco de Gama sailed around the Cape of Good Hope in 1497, 100 of his 160 sailors died of scurvy. In 1601 an English captain proved the benefit of lemon juice on a long voyage. The results were so clear that one would have expected the English Navy to quickly adopt citrus

juice, but this was not the case. In 1747, almost 150 years later, a British Navy physician (who knew of the earlier experiment) found once again that citrus fruit both prevented and cured scurvy. The British Navy, however, still did not adopt the innovation until 1795, almost 50 years later. At that point, scurvy was wiped out in the British Navy. But it was not until 1865, another 70 years later, that the British Board of Trade adopted a similar policy in the merchant marine. It took 260 years for this innovation to reach acceptance!

Diffusion

A model of the technology adoption life cycle was established by Everett Rogers in his landmark text *Diffusion of Innovations*. Diffusion, as defined by Rogers, is the process by which an innovation is communicated through certain channels over time among members of a social system. One can view five different categories of people (or organizations) that adopt new innovations, each distinguished by their characteristic response to discontinuous developments. A bell curve (shown in Figure 1) describes the progression of market penetration as well as the divisions of the five categories.

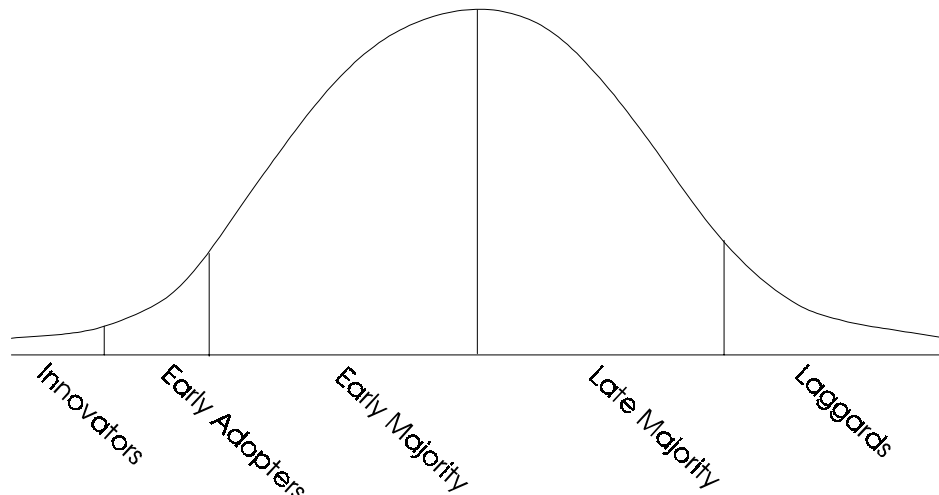


Figure 1: Technology Adoption Life Cycle

Innovators pursue new technology products aggressively. Technology is a central interest in their life, regardless of what function it is performing.

Early adopters, like innovators, buy into new product concepts, but unlike innovators, are not technologists. They are people who find it easy to imagine, understand, and appreciate the benefits of a new technology, and to relate these potential benefits to their other concerns. They do not rely on well-established references in making these buying decision, preferring instead to rely on their own intuition and vision. They are key to opening up any high-tech market segment.

Members of the **early majority** share some of the early adopters ability to relate to technology, but ultimately are driven by a strong sense of practicality.

The **late majority** shares the concerns of the early majority, plus one major additional one. People in the early majority are comfortable with their ability to handle a technology product, should they finally decide to purchase it. Members of the late majority are not.

Laggards are people who simply don't want anything to do with new technology, for a variety of reasons. Some reasons are personal and some are economic.

There are actually gaps in the technology curve separating each of the groups. The gap between the early adopters and the early majority is large, in fact, it is a *chasm* (as shown in Figure 2). The problem is surviving through the passage of this chasm, something many companies and products are unable to do.

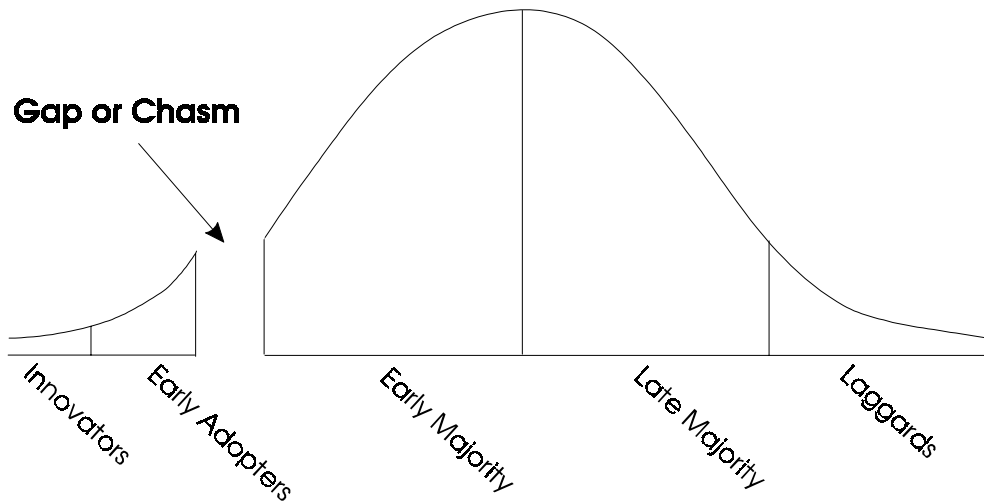


Figure 2: Modified Technology Adoption Life Cycle showing the Chasm

Early adopters expect to get a jump on the competition, whether from lower product costs, faster time to market, more complete customer service, or some other comparable business advantage. In contrast, the early majority want to buy a *productivity improvement* for existing operation. They are looking to minimize the discontinuity with the old ways. They want evolution, not revolution. Early adopters do not make good references for the early majority, and because the early majority's concern is not to disrupt their organizations, good references are critical to their buying decisions. The only suitable reference for an early majority customer is another member of the early majority, and they usually require several suitable references.

Making the marketing and communications transition between any two adoption segments is normally excruciatingly awkward because you must adopt new strategies just as you become most comfortable with the old ones. The biggest problem during this transition period is the lack of a customer base that can be referenced at the time of making the transition into a new segment. High tech markets are made up of people who reference each other during the buying decision. As one moves from segment to segment in the technology adoption life cycle, one may have any number of references built up, *but they may not be of the right sort*.

If one looks deep into the chasm, one sees four fundamental characteristics of visionaries that alienate pragmatists.

1. Lack of respect for the value of colleagues' experiences.
2. Taking a greater interest in technology than in their industry.
3. Failing to recognize the importance of existing product infrastructure.
4. Overall disruptiveness. Pragmatists are very cautious about grandiose schemes because they know they will have to live with the results.

Visionaries, as a group, make a very poor reference base for pragmatists. Hence the chasm. The situation can be further complicated if the high-tech company, fresh from its marketing successes with visionaries, neglects to change its sales pitch. The company may be trumpeting its recent success at early test sites, when the pragmatist would much rather hear about are up-and-running production installations. Or the company may be saying 'state-of-the-art' when the pragmatist wants to hear 'industry-standard'.

Crossing the Chasm

The chasm is a dangerous place to be. Your investors have seen some early successes and now expect to see real progress against the business plan's long-term revenue growth objectives. Seeking this kind of growth during the chasm period *is futile*.

One useful analogy for crossing the chasm would be the early explorers and colonists in America. They landed with a fixed amount of supplies (working capital) to see them through to self-sufficiency. The question is not whether someday someone will make a successful colony; the question is whether it will be *them*, or whether they will die in the attempt.

The key to survival is niche marketing. Trying to cross the chasm without taking a niche market approach is like trying to light a fire without kindling. Many companies are unwilling to follow such a strategy. They do not have, nor are they willing to adopt, any discipline that would ever require them to stop pursuing any sale at any time for any reason. In other words, they are *sales-driven* company, not a *market-driven* company. The consequences of being sales-driven during the chasm period are *fatal*. One of the keys in breaking into a new market is to establish a strong word-of-mouth reputation. Numerous studies have shown that in the high-tech buying process, word of mouth is the number one source of information. Chemists talk to other chemists, doctors to other doctors, etc. Winning over one or two customers in 5 or 10 different segments – the consequence of a sales-driven approach – will not create the word-of-mouth effect. Your customers may try to start a conversation about you, but there will be no one there to reinforce it. In contrast, winning 4 or 5 customers in one segment will create the desired effect.

For word-of-mouth effectiveness, and for perceived market leadership, it is critical when crossing the chasm that you focus exclusively on achieving a dominant position in one or two narrowly bounded market segments. If you do not commit fully to this goal, the odds are overwhelmingly against your ever arriving in the mainstream market.

Target the point of attack

The first task of marketing is to target the point of attack. Target a specific niche market as your point of attack and focus all your resources on achieving the dominant leadership position in that segment. The biggest mistake one can make in this state is to turn to numeric information as a source of refuge or reassurance. Do not be swayed by statements such as, "It will be a billion-dollar market in '99, and if we

only get 5% of that market...”. Acknowledge the lack of hard data and understand that *informed intuition*, rather than *analytical reason*, is the most trustworthy decision-making tool to use.

Positioning

Positioning is the most discussed and least understood component of high-tech marketing. You can keep yourself from making most positioning gaffes if you simply remember the following principles:

1. Positioning, first and foremost, is a *noun*, not a *verb*. It is an attribute associated with a product, not the marketing contortions people go through to set up that association.
2. Positioning is the single largest influence on the buying decision. Evaluations are often simply rationalizations of pre-established positioning.
3. Positioning exists in people’s heads, not in your words.
4. People are highly conservative about entertaining changes in positioning. The most effective positioning strategies are the ones that demand the least amount of change.

Given the above, it is then possible to talk about positioning as a verb. What is important is not how to make products easier to sell, but easier to *buy*. There are four stages in setting up this process, as follows:

1. Name it and frame it. People can’t buy what they can’t name, nor can they seek it out if they don’t know where to look. This is the minimum amount of positioning needed to make the product easy to buy for a technology enthusiast.
2. Who for and what for. People won’t buy until they know who is going to use it and for what purpose. This is the minimum positioning needed to make the product easy to buy for the visionary.
3. Competition and differentiation. People need to place the product in some sort of comparative context. This is the minimum positioning needed to make a product easy to buy for a pragmatist.
4. Financials and futures. People want a vendor with staying power who will continue to invest in the product category. This is the final extension positioning needed to make the product easy to buy for a conservative.

The Positioning Process

When positioning is thought of as a verb, it refers to a communications process made up of four key components:

1. The claim. The fundamental positioning statement
2. The evidence. The claim is meaningless if it can be disputed.
3. Communications – with the right audience, in the right sequence, with the right versions of the message.
4. Feedback and adjustment. Just as football coaches do at half time.

The Claim: Passing the Elevator Test

Of the four components, by far the hardest to get right is the claim. Can it be explained in the time it takes to go up an elevator? The key is to define your position based on the target segment you intend to dominate and the value proposition you intend to dominate it with. Here is a proven formula for getting it all down into two short sentences.

- For (target customer)
- Who (statement of the need or opportunity)
- The (product name) is a (product category)
- That (statement of key benefit – the compelling reason to buy)
- Unlike (primary competitive alternative)
- Our product (statement of primary differentiation)

What is often interesting about writing a statement like this is not what you write down, but what you have to give up. Remember that the goal of positioning is to create and occupy a space inside the target customers' head. Mercedes (“top-of-the-line, conservative”), BMW (“upscale performance sedan, yuppie”), Cadillac (“American top-of-the-line, tired”), Lexus (“new kid on the block, current best buy”). That's all the space you get for your primary differentiation statement. *If you don't make the choice to fill the space with a single attribute, the market will do it for you.*

The statement for positioning is not the tag line for the ad. Ad agencies come up with tag lines, not marketing groups. The statement of position is to control the ad campaign, to ensure it stays on strategy.

Pragmatists are more interested in the market's response to a product than in the product itself. To such a buyer, the most powerful evidence of leadership and likelihood of competitive victory is the quality and number of partners and allies you have assembled in your camp, and their degree of demonstrable commitment to your cause.

Acknowledgments

This paper is an abbreviated summary of Geoffrey Moore's text “Crossing the Chasm”. Personnel interested in this subject are highly encouraged to acquire and study references 1 & 2.

References

1. **Crossing the Chasm**, Geoffrey A. Moore, Harper Business, 1995, ISBN 0-88730-717-5
2. **Diffusion of Innovations**, Everett M Rogers, The Free Press, 1995, ISBN 0-02-926671-8