

Disruptive Innovation Primer

The Need for Disruptive Innovation

Only 25% of all new products that established companies introduce in their markets succeed. Seventy-five percent fail. Only 10 percent of companies can maintain a level of growth that satisfies their shareholders over the long term. Ninety percent cannot. Most of those companies seem to be doing all the right things – listening to their best customers, keeping a close eye on competitors, and investing heavily in technological advancements. Long-term success requires more. It requires that companies develop strategies around disruptive innovations.

Disruptive innovations either create new markets or reshape existing markets by delivering relatively simple, convenient, low-cost innovations to a set of customers who are ignored by industry leaders. Historically, companies that dominate an industry have had little interest in pursuing these types of innovations because profit margins are often lower and the innovations don't address the needs of those companies' best customers. However, companies that have recognized the value in pursuing disruptive growth -- such as Intel, Procter and Gamble, Cisco, Johnson & Johnson, Dow Corning and IBM -- have all profited from this type of innovation at various points in their histories.

The Disruptive Innovation Theory

There is a simple, important principle at the core of the disruptive innovation theory: companies innovate faster than customers' lives change. Because of this, most organizations end up producing products that are too good, too expensive, and too inconvenient for many customers. By only pursuing these "sustaining innovations," companies unwittingly open the door to

Disruption in Progress Today

Consumer electronics: Cellular phones and home gaming systems are continuing their assault on other industries. Cameras on cellular phones have gotten so good so quickly that they will soon affect the sales of standalone digital cameras. Home gaming systems such as Sony's PlayStation 2 and Microsoft's Xbox are adding additional features that move computing from the office to the living room.

Health care: Companies are introducing quick and convenient health care delivered by nurse practitioners in kiosks located in retail stores. The leading example of this emerging model is Minnesota-based MinuteClinic.

Telecommunications: A technology known as Voice over Internet Protocol now allows companies to offer cheap, customizable telephony service over the Internet. Vonage and Skype are the leading standalone providers, but market incumbents such as Verizon are also trying to introduce similar models.

Education: On-the-job training and online adult education providers are delivering extremely relevant, low-cost education in more convenient ways. Obvious examples of this trend include General Electric's Crotonville training center and the University of Phoenix.

entrants that can offer simpler, more convenient and lower-cost products to those customers who have no need to keep up with the accelerated pace of innovative change.

A Classic Case: The Steel Industry



Steel minimills are a classic example of a disruption that transformed an existing industry with a cheaper solution. In the 1970s, a set of steel makers such as Nucor used minimill technology – a smaller, simpler way to manufacture steel than the prevailing integrated mill technology – to enter the steel market. At first, minimills could only sell to the least demanding customers at the very bottom of the market.

These customers were looking for bars of steel to bury in cement to reinforce the strength of that concrete (known as “rebar”). These customers didn’t need the higher-quality and more expensive options provided by leading integrated mills such as U.S. Steel and Bethlehem Steel. The integrated mills were happy to get rid of these customers since they produced very little profit. Over the next two decades, minimills moved progressively up-market until they pinned integrated steel mills to the very highest market tiers, driving many historical market leaders to bankruptcy.

This phenomenon happens for a good reason: good managers are trained to seek higher profits by bringing better products to the most demanding customers in the marketplace. But in that pursuit of profits, companies end up “overshooting” less-demanding customers who are perfectly willing to take the basics at reasonable prices. And they ignore “nonconsumers” who may have a desire to get a job done, but who lack the skills, wealth or ability to consume existing solutions in order to satisfy that desire.

Discount retailers such as Wal-Mart exemplify a type of disruptive approach that targets consumers overshot with existing offerings, in this case, department stores. Procter & Gamble’s Crest® Whitestrips® product provides an example of a disruptive approach that has created an entirely new market by targeting nonconsumers: those who find it too inconvenient or too expensive to go to the dentist to get their teeth whitened. By making it simple and affordable for people to do it themselves, P&G has created a booming new growth business.

It is important to note that although disruption is the key to *new* growth, companies should never ignore their core

offerings and should always continue to pursue sustaining innovation to maintain that growth. But devoting some percentage of resources to disruptive strategies will enable those companies to profit additionally from disruptive innovation before someone else inevitably does, and to build a foundation of growth for the future.

Identifying Areas of New Growth: Targeting jobs-to-be-done

To identify customers who will welcome disruptive innovations, companies should use a “jobs-to-be-done” approach. The jobs-to-be-done theory holds that products are successful when they connect with a circumstance—with a job that customers find themselves needing to get done. Products that successfully match a job or circumstance end up being the real “killer applications.” They make it easier for consumers to do something they were already trying to accomplish.

By identifying what jobs people really care about and developing products that make it easier to achieve these jobs, companies can identify new markets that they were previously unaware of and that could not be uncovered via traditional market segmentation schemes. Understanding those jobs that are not adequately satisfied by current products provides deep insight into what are and what will be the truly innovative products that delight existing customers and attract new customers from the sidelines of nonconsumption.

Case example: Go-GURT

An example that illustrates the jobs-to-be-done approach comes from the packaged foods industry. For some time, yogurt appeared to be a stagnating, uninteresting product category. Leading manufacturers such as General Mills and Danone continually introduced new varieties that tasted better and had more attractive—but still conventional—packaging. Yet those innovations barely created a ripple of growth.

Then, in 1999, General Mills introduced “Go-GURT,” a product targeted at kids. Instead of innovating to change product characteristics, General Mills took a different approach: it innovated to change product delivery. Go-GURT is packaged in a tube, which allows one-handed consumption. Rather than sitting down with a spoon, children can grab Go-GURT and, as the name implies, eat it on the run.

From the company’s viewpoint, Go-GURT was not a trivial innovation. General Mills had to create a package that kids could put in their mouths without injuring themselves or leaking dye. And the package had to be easy to open but not so easy that it would accidentally burst or tear when carried inside a backpack.

General Mills’ efforts were worth it. Go-GURT took off, with first-year sales of more than \$100 million, rejuvenating the yogurt category and helping General Mills capture market leadership from Danone.

What General Mills recognized was that improving on the attributes of yogurt itself would not generate new growth since products throughout that market were more than good enough along dimensions such as flavor. The improvements that would create new growth were those that increased convenience by bringing yogurt consumption to new contexts, thereby reaching previously unreachable customers, who had a specific job to do. By expanding the situations and occasions in which yogurt consumption was feasible, General Mills helped revitalize the category.

Pursuing New Growth Opportunities

When pursuing new growth opportunities, companies have two different ways to set strategy. They can follow a deliberate strategy, where they set a goal, define a set of steps to reach that goal, and then methodically act on each step. This process is very conscious and typically quite analytical. It involves assessment of market structure, competitive analysis, and detailed market research to determine customer needs.

Companies that take the other approach—following an emergent strategy—try to retain flexibility and gather feedback from the marketplace on what works and what doesn't. They try to change their strategies on the fly to adapt to new information that emerges from the marketplace.

Emergent strategies work in highly uncertain situations, such as those that surround the pursuit of disruptive innovations. In these situations, operating managers tend to encounter problems that business planners didn't anticipate. Actions lead to unanticipated results. In such circumstances, following a rigorous deliberate strategy can lead companies to ignore market signals and not adapt their strategies. In other words, they can continue to stick to a strategy that clearly isn't working. Emergent strategies encourage managers to respond to problems in the most appropriate way, even if it results in deviating significantly from the deliberate course.

When pursuing disruptive strategies, several key principles should be followed:

- Pursue the opportunity with an emergent strategy plan that incorporates learning and rapid adjustment
- Focus on immediate action. Determine and pursue information you can gather quickly that will increase your confidence that you are going in the right direction.
- Focus on assumptions. Explicitly testing key assumptions will help you reduce the venture's risk by finding the right strategy more efficiently and with more targeted investment.
- Remember two principles: 1) Be impatient for profit, patient for growth; 2) Scarcity is the entrepreneur's advantage. To live by those principles, spend as little as possible to test key assumptions and don't prematurely lock in to an approach that is probably wrong.
- Iterate back and revisit your strategy as you learn more. Some assumptions that seemed to be important will become less important; new assumptions will emerge that need to be tested.
- Don't keep the strategy static. If you learn that your strategy appears less attractive than you thought, consider how to shape it in directions that will increase your chances of success. Don't be afraid to kill a fundamentally flawed strategy.
- Have defined milestones and check in points to facilitate this iterative process