

## How Companies Turn Customers' Big Ideas into Innovations

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# How Companies Turn Customers' Big Ideas into Innovations

The most effective product development and commercialization processes encourage dynamic communication and idea sharing among engineers, marketers, and customers.

**F**rom Thomas Edison to Steve Jobs, the conventional view of product development has always portrayed the inventor as the hero. In fact, the inventor is only part of the process. Edison himself hinted as much when he described the inventor as being a “specialist in high-pressure stimulation of the public imagination.”

The truth is, most successful product innovation requires imaginative insights and incisive action from heroes in the lab and in marketing. Indeed, whether it was wizards in Menlo Park or Xerox PARC who came up with the concepts, the most effective product development and commercialization processes have always been based on a dynamic and complex exchange of ideas and interests among engineers, marketing experts, and, most importantly, the end-consumer.

Yet few companies are good at managing this exchange, particularly when it comes to capturing and incorporating customer insights into product design, according to product innovation experts at Booz Allen Hamilton and the Wharton School of the University of Pennsylvania. While it's difficult to measure the cost of such missed opportunities, these experts say that this failure to incorporate the customer's perspective often seriously limits the potential financial and competitive value of corporate innovation.

## The Doom Loop

Many executives are aware that their companies need to improve how they manage innovation: In a Booz Allen survey of European senior executives (mostly CEOs, chief technology officers, and vice presidents of engineering and product development) completed in October 2004, nearly half of all respondents said they were dissatisfied

So why haven't they done it already? Institutional barriers are perhaps the biggest reason. Often, engineers are tucked away so far within a company that they don't see firsthand what customers really need. Kevin Dehoff, a vice president at Booz Allen based in New York, whose work includes providing advice about product development, says engineers often become so focused on solving

**“Strongly engineering-driven companies don't always appreciate the emotional attachment people have to products,” says Wharton's George Day.**

with their company's innovation performance. Specifically, 48 percent were unhappy with their company's ratio of innovation hits to misses, and 51 percent were dissatisfied with how their company identifies new service and product categories. And they weren't unclear about how to solve the problem: Out of a list of 12 potential steps their companies could take to improve their innovation practices, executives ranked understanding their customers better as the most important step to increase the value of innovation created in the product development process.

technical problems that they overlook the ways in which the customer actually defines value.

George Day, a professor of marketing at Wharton, also sees this overconcentration on technology as one of the most common sources of trouble. “I think the biggest problems occur when you get strongly engineering-driven companies that don't really appreciate the emotional attachment people have to products or their emotional reactions to them, and think it's all about very specific product attributes,” he says.

The risk such companies face is getting caught in a development

dynamic where innovation is driven not by a focus on what the customer values and is willing to pay for, but on solving an engineering problem. This dynamic leads to an internally focused development cycle Dehoff has nicknamed “the doom loop.” In this iterative process, satisfying the customer becomes a secondary concern. Dehoff says genuinely valuable innovation is generated through a different dynamic: “understanding, engagement, and participation of direct customers coming together with some kind of a technology improvement.”

### Levers for Innovation

Discovering customer insights about products, and then incorporating those insights into product development, requires a number of initiatives at a variety of levels — personal, interdepartmental, and strategic. Although no two companies innovate in exactly the same way, successful companies often share a number of characteristics, according to Booz Allen and Wharton experts:

#### 1. Employees use the product.

It might sound elementary, but being a consumer of your own product is an important way to stay close to the customer. Many companies go wrong simply because after a number of years at the helm, successful senior executives lose interest in what they sell, according to Leslie H. Moeller, a Cleveland-based vice president of Booz Allen. “I once had a client who didn’t like the products produced by the division he ran. When they had product tastings, he wouldn’t taste them,” he recalls. “How can you lead an organization if that’s how you feel?”

One company that does seem to

get it right, according to Moeller, is Harley-Davidson of Milwaukee, Wisconsin. Many company executives are great fans of the famous “hog,” and frequently attend rallies with other Harley motorcycle enthusiasts. Such involvement creates real empathy with the customer, Moeller says, and often provides executives with a clearer vision about both what the customer wants most and what kinds of improvements they would like to see.

#### 2. Successful innovators conduct vigorous market research of customer needs.

Computerized design and improvements in supply-chain dynamics have shortened product development cycle times to levels that were unheard of just a generation ago, tempting many companies to try to take shortcuts with their market research to stay ahead of the competition. “When you have such pressures, very often companies skip the marketing research,” warns Wharton market-

giant, not only conducts focus groups but also undertakes what are essentially anthropological expeditions to see how consumers are actually using their products in the home. Similar stories can be found in the business-to-business world: CLAAS KGaA, a manufacturer of agricultural equipment based in Harsewinkel, Germany, maintains practice centers in each of its major markets. These are model farms where farmers test new equipment and company employees can observe close at hand what they like and how they use the new machinery.

The strongest innovators don’t overlook former customers, either. Although it is natural to want to hear positive feedback from satisfied customers, Day says companies need to be more aggressive in seeking out the unhappy customer. Indeed, it is well known that dissatisfied customers and former customers are often great sources for useful information for both modest and major product innovations. But most com-

**“Companies may lose their innovative edge because, after many years at the helm, senior executives lose interest in the products they’re selling.”**

ing professor Yoram “Jerry” Wind. “But that can be a huge mistake.”

Booz Allen and Wharton experts agree that the most successful innovators still spend a great deal of time trying to understand their customers’ needs, in spite of those pressures. Procter & Gamble, the Cincinnati, Ohio, personal care

panies don’t pay as much attention as they should to what they can learn from discontented customers.

In new markets, local partners can also be an important source of insights. That’s especially true in developing countries, where it’s harder to purchase market research, Booz Allen experts note. For example,

Alexander Kandybin, a vice president at Booz Allen based in New York, says that sales of confectionary and tobacco products increased in many emerging markets once the brands' owners understood that although most consumers couldn't afford to buy packs of cigarettes or bags of candies, they could and would buy individual pieces. "It's really hard to understand even such simple things unless you develop those [local] relationships," he advises.

**3. The engineers stay close to the market.** It might seem reasonable that a company with strong R&D roots could afford to overlook the smaller ebbs and flows of customer needs and related market opportunities, and just concentrate on creating exciting new products,

ogy," he explains.

Kandybin contrasts the successes of Bose, the Framingham, Massachusetts, sound system company, with that of Apple Computer of Cupertino, California. Both companies are technology-driven. Apple, with its exceptional focus on customer insight, has been able to invent great products with great technology, which Bose does too. Apple, however, also creates vast new markets. Witness the way it has transformed the music industry with its hugely popular iPod. Interestingly, Bose has a new sound system specifically made for use with the iPod, and it has dramatically raised its marketing and brand identity push in the last few years.

How do companies maintain both a consumer and a technical

U.S. companies would often introduce a product domestically first and then introduce the same product with minor modifications into other markets, according to Jerry Wind. Today, they no longer have that luxury. Many companies must introduce a new product simultaneously in many markets, he says, creating huge difficulties for product and service-system designers.

One emerging strategy to address this issue in a global context is to build more research and development operations nearer to companies' newest markets. Booz Allen's European innovation survey, for instance, estimates that European companies will increase their research and development expenditures in Eastern Europe and Asia from 16 percent to 31 percent by 2007, largely to get closer to those new customers.

Although labor cost savings are often seen by the media as the driving force behind such cross-border moves, Thomas Goldbrunner, a Booz Allen Hamilton principal based in Munich, Germany, says Booz Allen's survey of innovation practices found that access to customers' knowledge was actually a much more important motivator for expansion. Executives surveyed rated "access to customer know-how in new markets" as much more important (3.02 out of a possible 4) than factor cost advantages (2.46 out of 4) or greater proximity to a place of production (2.25 out of 4).

**5. Innovative companies seek understanding of customer behavior and motivations.** There's more to incorporating customer insights than simply listening to customers more closely. Often, the

## "Procter & Gamble conducts anthropological expeditions to see how consumers actually use their products in the home."

but this strategy isn't efficient. In fact, Booz Allen consultants say that it's an extremely risky — and expensive — way to operate.

"These companies end up introducing a lot of technology-driven projects and seeing what sticks," Kandybin says. It's not that a market-blind strategy never works, according to Kandybin; it is just that being tuned in to the market has much more potential. "If a company's engineers don't understand the market from the standpoint of consumer needs, they are usually much less successful at creating markets, even if they have good technol-

focus? The use of cross-functional teams in product development is one way smart firms try to close the gap between technical know-how and customer understanding. At Hewlett-Packard, for instance, the company requires "everybody on the team to go together to a prospective customer and hear the customer themselves," says Wharton's George Day.

**4. Companies perform R&D around the world.** What do you do if your customer is on the other side of the world from the markets you are used to serving? Historically,

best innovators not only understand customer behavior but the reasons behind that behavior. “It’s not just what they do, but why they do it,” Kandybin explains.

Although close observation of customer behavior can lead to incremental gains, Kandybin says, understanding people’s deeper motivations — not just what they need, but why they need it — is where the biggest opportunities for innovation are generally found. “The difference

category in the U.S. market, encouraged consumers to trade up to a more upscale (and therefore more expensive) product, and made the coffeehouse not just a fixture on college campuses or in urban neighborhoods, but a vital new public gathering place that’s evident throughout mainstream American life.

How does a company get to that level of understanding of its customers and its market opportunities? Kandybin cites several important

attributes and that helps the company determine which are the most important to customers — today’s market researchers have a powerful set of tools at their disposal.

### Opening the Aperture

Ultimately, Wharton professors and Booz Allen consultants agree that the world is too complex, and markets change too rapidly, to attempt to introduce a new offering without a great deal of understanding about the customer’s needs and preferences — those that can be discerned today, and those they imagine will develop tomorrow. Companies need “to really open up the aperture and think about understanding customers’ requirements, with the broadest and most expansive view of what’s possible,” Dehoff says.

From modifying the structure of the development teams, to refining lines of communication within the company, to increasing the volume and thoughtfulness of the market research, tactics for improving closeness with customers are not in short supply. What is needed is commitment and more innovative approaches to the process of innovation.

In the final analysis, the essential ingredients to improve product innovation may be simple human assets: humility and curiosity — humility in thinking that the company may not understand everything about the value of their product in the marketplace, and the curiosity to always want to learn more about customer needs. As Booz Allen’s Les Moeller observes, “The value of consumer insight and empathy ... consciously and unconsciously informs the decisions that get made.”

## “European companies plan to significantly increase R&D activity in Eastern Europe and Asia by 2007, according to a Booz Allen survey.”

in deep understanding of what and why is the difference between understanding existing needs versus not-yet-realized needs,” he explains. “And meeting not-realized needs is a lot more powerful than meeting existing needs.”

Again, this is not an insight that’s new for companies. Yet, it is still the exceptional company that capitalizes on this particular opportunity to innovate. Kandybin cites Starbucks as one company that has a superb record for anticipating customers’ unarticulated desires to create new and better experiences. “Coffee was a commodity and consumption was declining until Starbucks came up with a different concept, meeting a previously unrealized need,” he says.

As a result of its close attention to all the aspects of the customer’s coffee experience, the Seattle-based company has almost single-handedly invented specialty coffees as a major

resources — multiple sources of market data, heavy users of the product on staff, and extremely close relationships with customers. He says combining these management practices is one reason McDonald’s has been able to stay at the top of the fast-food business for so long, he says. “If you look at the trends, very often they are the trendsetters in the fast-food industry... They understand not just what one particular customer of McDonald’s wants, but why they want it,” he says.

Gaining that level of insight can be difficult, but it isn’t impossible. Day says there are at least 30 techniques market researchers use to find out more about their customers. From metaphor elicitation exercises that seek to discover customers’ underlying psychological associations with the product, to conjoint analysis — a technique whereby customers are asked to select between baskets of product

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