



Practical Magic

Making Innovation Relevant to the Product Portfolio

"Anything that won't sell, I don't want to invent. Its sale is proof of utility, and utility is success."

-- *Thomas Edison*

Most companies suffer not from a deficit of innovative ideas but from an inability to distinguish winning ideas from all the rest. They lack a process for understanding which innovations are relevant and then turning them into attractive business opportunities.

How *do* you select an idea that the marketplace ultimately will value as a solution to a problem it wants solved? Perhaps more challenging, how do you select a technology innovation that may solve a problem customers don't even know they have? These breakthrough developments are often the most profound and are the ones companies tend to focus on. After all, everyone wants to invent the next automobile, Sony Walkman, or iPod music player. But striving for category-busting innovation is not always the wisest or most profitable path.

In this article, adapted from our forthcoming book *Value Innovation Portfolio Management* (and first in a series covering the role of innovation in the portfolio), we define innovation in the context of business and we outline a new way of looking at innovation in relation to your product portfolio. Unlike the characters in the book and movie *Practical Magic*, who possessed otherworldly skills, you don't need paranormal talents to ensure that innovation works its magic within your organization in a real, concrete way that produces practical and profitable results.

What is Innovation?

Innovation is defined as the act of introducing something new (*The American Heritage Dictionary of the English Language*, Fourth Edition, Houghton Mifflin Company, 2000). In business (as opposed to academia or pure research), innovation is the introduction of new products, services, or practices that yield commercial success in the marketplace. ("Fun with a purpose," as the folks at Highlights Magazine for Kids say in their tagline.) Each organization will have its own criteria to determine whether an innovation is successful. Growth in a particular market, acquisition of market share, preventing entry of competitors into the market, increased revenue, a better return to stakeholders, or recognition as a global leader are all valid measures. You're successful when you achieve the objective enabled by the innovation.

Innovation allows a company to accomplish two important things: *differentiate* and *disrupt* the marketplace through competitive advantage. The stronger the impact on the marketplace, the more sustainable the resulting competitive advantage. The U.K. company [Naturalmotion](#), for example, produces PC-based 3D animation software called *endorphin*, which integrates artificial intelligence and biomechanics to simulate human figures. Animators using *endorphin* don't need expensive motion capture equipment or the human labor to perform stunts and actions. Using *endorphin* saves time and money in the construction of animated sequences while at the same time improving realism and believability. The product's capabilities remove major obstacles for creators of special effects in movies, computer games, and film animation, giving Naturalmotion a strong competitive advantage and ultimately changing how movie makers design, build, and reuse animation assets.

Innovations that confer competitive advantage are not confined to new industries or new companies. In 2001, Steelcase, the office furniture company founded in 1912 as The Metal Office Furniture Company, introduced RoomWizard™. This conference room and resource-scheduling product further advances Steelcase's integration of the office space marketplace. The product improves communication and maximizes room use for events scheduling with wall-mounted displays outside conference rooms, helping Steelcase win business from competing office furniture companies.

While some innovations are logical extrapolations of existing products, Ford's Model T and Apple's Macintosh are classic examples of [disruptive innovations](#). Disruptive innovation may introduce new technologies, which in turn spawn new products, services, and methods in the marketplace. Digital photography, container ships to modularly transport cargo, vertically integrated steel mills, and RFID (radio frequency identification) for remotely retrieving data are examples of ideas that grew into innovations and fundamentally altered the markets that spawned them.

What Makes Innovation Successful?

For every successful disruptive innovation, thousands never see the light of day. What turns some innovations into market dominators is not how cool or exciting they are to the people who came up with them or to others in the industry. Success can be defined by one criterion: *An idea becomes an attractive opportunity only when it delivers a solution to customers who place value on it for the problem that it solves.* This implies that any innovation must go hand in hand with activities to help the innovators understand what the market values.

Don DeLauder, director of product innovation and advanced development at medical imaging company [Medrad](#), says his company pays a lot of attention to incorporating customer input into the innovation stages of portfolio planning. "We've got processes -- mind mapping and brainstorming and so on -- that operate at a very high degree of sophistication within the company in each of the business units. There's a lot of innovative capacity naturally built into our processes."

But determining what the customer actually values can be a trickier proposition than would seem on the surface. Simply asking customers what they want often leads companies astray, especially if the answers aren't evaluated in a strategic context. Medrad's innovations group is responsible for trying to think beyond and outside of existing business areas. "We've got a lot of processes in place for making sure that people think innovatively... ethnographic work is very useful for figuring out what a product wants to be and not just assuming that we know. We're not just listening to a customer tell us 'okay, this is what we want.'"

Realms of Innovation

We mentioned earlier that innovation enables two important activities in relation to the marketplace: *differentiation* and *disruption*. This doesn't imply, however, that all innovations will define a new market or change the way society behaves. An innovation may take many strategic forms, from a *simple product or service* to a *complex business model* (see Figure 1). It may fall anywhere on the spectrum from *new and evolutionary* to *revolutionary and disruptive*. Even incremental improvements can represent innovations, *if they meet a need* -- either recognized or unrecognized -- on the part of the customer.

Whatever the route, a company must fully understand the realms of innovation and tie the innovation to customers through an understanding of what customers value.

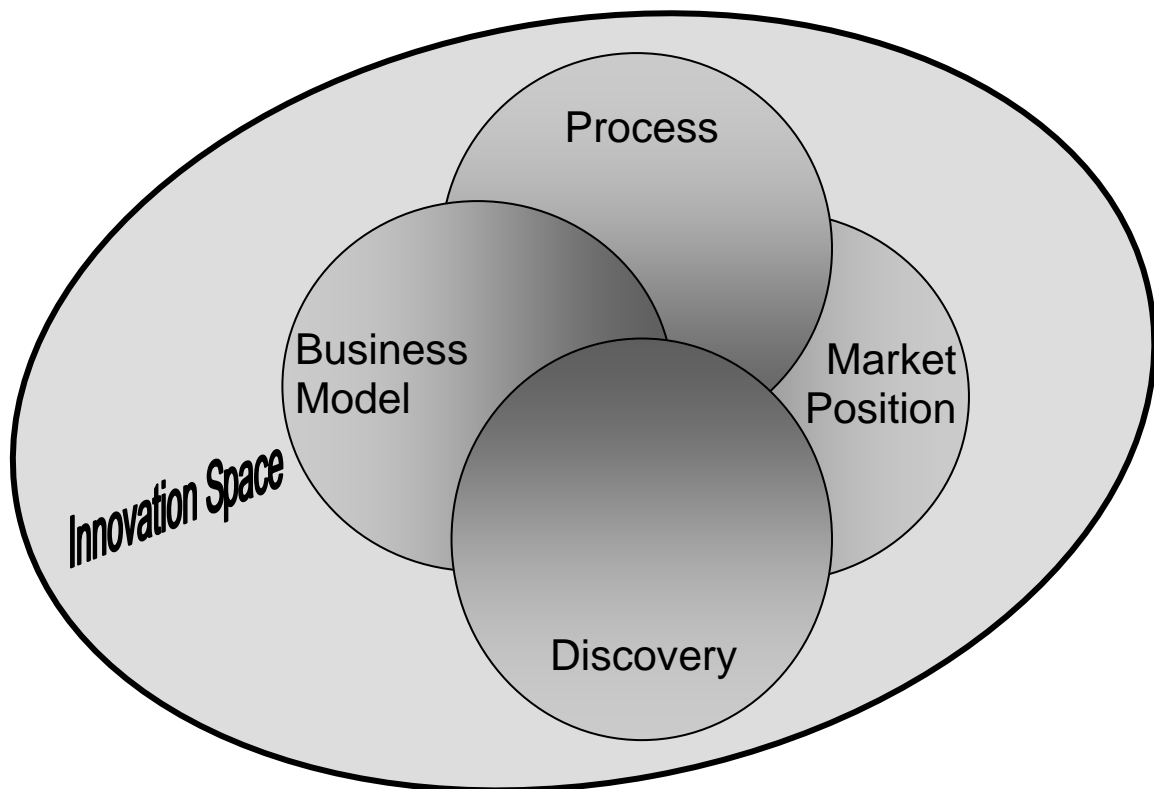


Figure 1: *The realms of innovation*

Traditionally, innovation in business referred to a discovery that involved a flash of creative insight or an *aha!* moment. This definition is only one of several dimensions along which organizations now innovate. These dimensions include:

- 1) **Process -- Changing how you deliver goods and services.** Companies such as Federal Express, with its 1986 introduction of its hand-held bar code scanner system, and Citibank, with its introduction in 1970 of the first ATM card, profoundly affected their industries not by offering new services but by creating new ways to deliver those services.
- 2) **Market position -- Changing the way the product is marketed.** Sometimes the opportunity for innovation comes not in creating a completely new product but in reframing the presentation of an existing product or service to the market. For example, according to a *Marketing* magazine article by Laura Mazur, Enterprise Rent-A-Car became number one in worldwide revenue in 2005 by identifying in 2001 that not all customers want to go to an airport to rent a car. Enterprise created a new niche for itself in neighborhood car rentals, which competing car companies began to recognize and imitate.
- 3) **Business model -- Modifying the way the business is organized to deliver a product.** Dell Inc. is the poster child for business model innovation, having introduced a completely new way of marketing and selling computers directly to consumers. Another example is Starbucks Corporation, which bases its business model on selling a cup of coffee for a price two to four times what competitors charge, but doing so in an appealing environment. Starbucks has built its retail business on a highly disruptive model, opening a new innovative retail store near an older one and cannibalizing the older store's business, only to shortly reopen the older location with yet another innovation. The *Washington Post* reported in "The Starbucks Strategy? Locations, Locations, Locations," (August 25, 2002) that this distinct model had grown the operation to more than 4,700 U.S. store locations as of 2003.
- 4) **Discovery -- Finding a radically new way of doing something by a process either managed or accidental.** [3M](#) did this in 1980 when it

introduced Post-it® Notes nearly 15 years after scientist Spence Silver discovered an adhesive substance that didn't stick permanently and several years after Arthur Fry, Silver's colleague, had an *aha* moment while singing in the church choir. Fry realized that a little adhesive on the bookmarks he used to keep his place in Sunday's hymnal would prevent them from falling out. The introduction of a novel chemical compound, phosphodiesterase 5 enzyme (sildenafil), commercially known as Viagra®, is another example and one for which the Pfizer research team won the prestigious *French Prix Galien*. Yet, in 1989 the original goal of the research team was not to cure erectile dysfunction but to find a treatment for angina by preventing the formation of blood clots, reducing the injurious action of platelets, and enhancing blood flow by relaxing the walls of arteries and veins. It was during clinical trials that some men reported having an erection as a side effect. The side effect became the discovery, as reported in *Discover* magazine (January, 1999).

Potential products must possess certain characteristics to fall within one of the realms of innovation. They must go beyond the expected. For example, quality was once an innovative differentiator. Now, however, after the Japan's quality movement of the 1970s led to Motorola's introduction of the Six Sigma method to eliminate defects, quality is an accepted tool that permeates all parts of product development. Similarly, industrial design, once a differentiator like quality, is also now expected.

Where Innovation Fits in the Product Portfolio

Conceiving of innovation as part of a broader undertaking that occurs within these realms implies a new relationship between innovation and the product portfolio. No longer is the development of the portfolio a linear process, where strategic planning precedes innovation, which is followed by development and market research. Instead, *innovation is the output of the portfolio*. The product portfolio becomes the container that holds all the types of *potential* innovations. Strategy, the understanding customer value, and innovation coexist and influence one another.

Taking this perspective, the focus shifts to what you can do to recognize the potential and optimize the introduction of innovations to the marketplace. Part of managing innovation is applying a filtering process to determine which ideas are the most strategically relevant and the most valuable to customers. At the most basic

level, a company must somehow determine what realm is the most appropriate for innovation. This is a strategic business question, which implies the involvement of senior managers to look at the effect of innovation on the strategic alternatives available to introduce products to market.

And finally, companies must effectively manage the accidents of discovery -- like adhesive that doesn't stick very well or a drug with an unanticipated side effect -- to transform them into market successes. This can only happen when the magic of innovation is paired with a practical understanding of what customers value.

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Find out more about [*Value Innovation Portfolio Management: Achieving Double-Digit Growth Through Customer Value*](#) (J. Ross, September, 2006).

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