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Beyond Breaking the Rules

Changing the Customer's World with Value-Based Innovations

"Rules are mostly made to be broken and are too often for the lazy to hide behind."

-- [Douglas MacArthur](#)

In 1968, Douglas Engelbart demonstrated NLS, the first computer system presenting a user interface organized into separate regions of the screen and navigable via a computer mouse Engelbart invented for the purpose. In 1979, Apple co-founder Steven Jobs learned about GUIs at Xerox PARC, where a group of Engelbart's researchers had developed an interface of overlapping windows. Apple Computer then applied the desktop metaphor to the Lisa and later to the Macintosh. And so it was not until more than 10 years later that the now-ubiquitous graphical user interface (GUI) became part of commercial computing.

Certainly, Engelbart's thinking was innovative, as evidenced by his 1962 work "[Augmenting Human Intellect: A Conceptual Framework](#)," which itself was intended to develop a framework in which to study the augmentation of human intelligence. But some would argue that Jobs and Apple were *more* innovative -- not because they invented the GUI, but because they transformed the technical innovation of the GUI into a customer-oriented improvement -- the desktop metaphor -- that made computers easier to use.

If you approach innovation simply as a thinking-outside-the-box, rule-breaking undertaking, you are likely to be disappointed in the commercial viability of the innovations you produce. Innovative thinking alone was not enough to bring about the widespread changes that occurred with the popularization of desktop computers. To take advantage of innovation in your business requires thinking differently about

the customer value space by combining out-of-the-box thinking with an in-depth understanding of customer problems. Read on to find out how shifting your focus from the *innovation* to the *customer* can concentrate your company's innovative efforts where value resides.

The Spectrum of Customer Value Innovation

Customer value innovation seeks to improve the customer experience by coming up with a new solution to a customer problem or a new ending to an old and tired customer story. In the spectrum of customer value innovation are four distinct types of innovation: resolution, evolution, revolution, and disruption (see Figure 1). The spectrum excludes customer solutions that don't require any innovation, as well as innovations that don't offer a customer solution. Embracing this spectrum may require a shift in how you think about innovation. After all, *resolution* and *evolution* don't provide ground-shaking, new-to-the-world offerings, which often is the criteria for innovation how many. But they change *the customer's world*, and that's what matters.





Resolution	Evolution	Revolution	Disruption
			
Johnson & Johnson pulls product from store shelves due to poisoning; introduces tamper-proof packaging to restore the brand	P&G introduces bleach into its standard detergent, which is safe for colors	University of Florida assistant football coach and a medical physician discover that replacing electrolytes of sweating athletes improves performance; launch the sports drink industry	Kelvinator introduces the commercial refrigerator, which allows the preservation of food; this changes society and civilization

Figure 1: *The spectrum of customer value innovation*

Let's look at each type of innovation.

In the early 1980s, Johnson & Johnson faced a crisis when someone succeeded in contaminating Tylenol on store shelves, resulting in seven deaths in the Chicago area. Johnson & Johnson acted quickly, pulling the product from shelves nationwide and not reintroducing it until coming up with a solution in the form of tamper-proof packaging. In a **resolution**, customers value the solution because it eliminates an irritation or, in the case of Tylenol, a potentially deadly threat. This is the lowest common denominator of innovation. Without the innovation, the product or service is potentially unusable or so unappealing that customers choose other solutions. The customer values the fact that the product or service doesn't do what it did before, *resolving* a potentially crippling issue. For Johnson & Johnson, the development of tamper-proof packaging was vital to the continued existence of Tylenol as a brand.

With **evolutionary** innovations, the customer perceives an improvement in existing or familiar environments or circumstances. It might be as simple as an extension of the current feature set, such as a laundry detergent including fabric softener to eliminate the extra step in the cleaning process of adding another ingredient. Or it might be as complex as changing a sophisticated algorithm to prevent the duplication of software or data stored on a DVD. While such innovations don't turn the world upside down, they provide *value* to the users of the product, encouraging them to continue choosing and using the product.

An offering that transforms the application for the customer by expanding its utility or merit falls in the category of a **revolution**. In sports medicine, for example, heat packs and cold packs provide not only relief but also more value to the user by being instantly available when most needed, at the moment of injury. Most people are familiar with the way the innovation of the Sony CD Walkman provided portable quality digital sound and eliminated bulky cassette tapes, but may not recognize as revolutionary the napkin dispenser at a fast food chain, which reduces costs and environmental impact by limiting the number of napkins per customer.

The category of innovation that often receives the most attention is **disruption**, in which the customer recognizes the innovation as a solution to a problem they didn't necessarily know they had. Disruptive innovation creates a new paradigm. You can

summarize the customer's reaction to the value of a disruption as: "I didn't know I needed it, but now that I have it I love it and couldn't get by without it." One example is the cell phone, which fundamentally changed how people communicate and their ability to remain connected. Another is the car door lock/unlock remote. This device eliminates the need for fiddling with keys, but more importantly it provides security by reducing the time and number of actions to open the driver's door, enter the car, and relock the door -- especially valuable if you're getting into your car alone in an unsafe area.

A disruption also may be valuable to customers indirectly. For example, the solid-state transistor, while an internal electrical component, started a consumer electronics paradigm highly valued by consumers for its attributes of miniaturization, reliability, and energy efficiency. The paradigm has extended to the present day with integrated circuits and microprocessors, enabling ubiquitous products that seem to morph almost daily.

The Parameters of Innovation

Understanding the parameters of innovation and seeing where it can be applied are as important as the ability to innovate. While rigid organizations that are unable to think outside their own walls may be unable to see innovations that are essentially in front of the corporate nose, wild creativity without parameters can lead to innovations with no market relevance.

One of the ways to avoid these problems is to innovate *after* identifying a customer problem, validating that the problem is relevant, and confirming that its solution will be valuable. This is one of the two approaches we advocate in our forthcoming book, [*Value Innovation Portfolio Management*](#). The other more traditional approach is to use ideas created by the organization independent of any knowledge about specific customer problems. In the latter case, you need to filter these ideas through customer value criteria before they become candidates for the product portfolio.

Much has been written about the voice of the customer and listening to customer needs. However, what passes for listening to the customer at many companies does not yield the kind of information needed to adequately understand innovation parameters. Companies must understand, at a deep level, the *experience of the*

customer -- what problems afflict their daily business activities or lifestyles in ways that create sufficient urgency to prompt them to attach value to a solution. (See our previous newsletter articles, "[VOC for All](#)," "[Beyond Listening to the Customer](#)," "[Extending Product and Brand Success Globally](#)," and "[Toward Designing a Flawless Product](#)" for more on gathering and using voice-of-the-customer data.)

Customer-Centered Innovation at Pitney Bowes

Office technology company Pitney Bowes has woven a deep understanding of customers into its innovation process. To develop the idea for a hospital application, a Pitney Bowes team spent several months on-site in hospitals. The team collaborated with nurses, doctors, and hospital administrators to identify dozens of potential needs and built scores of prototypes to validate those needs. This work led to the identification of a real issue for hospitals: the fact that weak documentation meant they were leaving money on the table. Knowing this, the team looked at several ideas that came from the prototypes it had developed. While the first implementation of the idea had technical limitations, the backup idea worked.

James Euchner, Vice President, Advanced Technology at Pitney Bowes, comments on this experience: "I have a belief set that innovation flows easily once you understand [customer] needs. Obviously you need smart, creative technical and other talent. But the challenge is not just one of generating the brilliant idea. Great ideas don't just appear, and then go to product. The innovation process involves a lot of morphing of ideas. A lot of people have the notion that the key is to find the brilliant idea – go get a lot of ideas, and then pick the best ones, and then those are the ones that'll become your product. I've never seen that happen."

"What I see happening is this: ideas germinate -- most often from real world experiences that people have, and then they morph. There's almost always something wrong with [the ideas]: they are too expensive, or they only meet part of a need, or they're clumsy to use, or they require integration. Or you understood the need, sort of, but you didn't really understand the need in essence. [Or] you understood it in essence, but to really create the innovation you have to approach it differently. And then you might have an innovation, but not a business model that will work for it...So there's a constant evolution, combining, morphing, dropping,

simplifying, revising of concepts until you're able to create a value proposition. [T]he innovation comes from that cauldron..."

"[O]bviously, there're different types of innovation. There's innovation that is technology-driven and can create whole new possibilities. [There's] also innovation associated with driving costs, making things faster, better, cheaper than they already are. And then there's customer-centered innovation, which is driven by customer needs. This is a foundation of what we do -- we focus on really understanding customer needs, then invent into them."

Stop to take a look at your company's innovation process. Does it occur in an ivory tower, far from the nitty-gritty experiences of customers? Is it inspired by the zeal of a single individual who seems to generate a thousand ideas a day? Or is it connected to corporate strategy, based on solid analysis of customer problems, and subject to rigorous review? Whatever the answer, successful and profitable ideas will emerge when you put the right ingredients into the innovation cauldron -- not only creativity and out-of-the-box thinking but also an understanding of what customers value.

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

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