

## Book Reviews

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### ***What Customers Want: Using Outcome-Driven Innovation to Create Breakthrough Products and Services***

Anthony W. Ulwick. New York: McGraw-Hill, 2005. 202 + xxxv pages. US\$33.95.

Though I definitely have some issues with this book, I also offer it my highest praise—I intend to implement some of the techniques presented in this book at my next opportunity. Anyone who has struggled to gather appropriate customer input and to prioritize that data could benefit from this book. The methods presented here are uncomplicated and can be applied to consumer products and, with minor modifications, to industrial products.

To appreciate *What Customers Want* you must understand why it is so difficult to gather quality customer input. A major reason, as Anthony Ulwick suggests, is “the literal voice of the customer does not translate into meaningful inputs. In fact, the customer-driven movement has failed to produce the desired results because asking the customer what he wants solicits not

only the wrong inputs, but inputs that inadvertently cause the failures that managers are fervently trying to avoid” (p. xvi). If you are trying to be customer driven, you are probably following the expressed desires of your current customers; unfortunately, customers are notoriously shortsighted. This leads to three common missteps: (1) making unnecessary improvements in areas where the market is already well satisfied; (2) making improvements in areas that are unimportant to the market; and (3) making improvements that, though satisfying some, inadvertently have a negative effect on the larger market (p. 42).

Although you should not follow the voice of the customer directly, Ulwick’s proposed solution is not novel. He is recommending that companies become market driven rather than customer led. The promise of market-driven strategies is that companies look beyond the expressed needs of current customers with foresight to deliver proactively the expressed and latent needs of current and future customers (Slater and Narver, 1998). Ulwick does, however, offer a worthwhile process for gathering and prioritizing customer needs, which he presents in eight chapters, one for each step of the process: (1) “Formulate Innovation Strategy”; (2) “Capture Customer Inputs”; (3) “Identify Opportunities”; (4) “Segment the Market”; (5) “Define Targeting Strategy”; (6) “Position Current Offerings”; (7) “Prioritize the Development Pipeline”; and (8) “Define Breakthrough Concepts.”

The main contribution of this book comes in chapters 2 and 3. In these chapters, Ulwick reveals his process for capturing customer inputs in the form of outcomes and then for identifying which of these outcomes offer the best opportunity for development.

In “Capture Customer Inputs,” the goal of gathering customer input is to understand “What criteria do customers use to measure value?” (p. 17) because “if we knew, well in advance, what criteria customers

were going to use to judge a product's value, we could dutifully design a product that met those criteria" (p. xv).

When attempting to provide customer input, customers tend to offer the wrong types of information, as discussed already. Many untrained researchers inadvertently gather this type of misleading information when using in-depth interviews, focus groups, or other market research techniques. To help overcome this tendency Ulwick defines three specific types of information that would be useful: (1) *jobs*—what customers are trying to get done; (2) *outcomes*—the metrics used by the customer to define the successful execution of a specific job (p. 2); and (3) *constraints*—what might prevent customers from adopting or using the new product or service.

The *jobs* that people and companies need to perform tend to be stable over long periods. In fact, they are more stable than the product and services they hire to accomplish these jobs. One example of a job people hire products to perform is listening to music while walking around. Today they may hire an iPod for this task; a decade ago, it was a CD player, and before that were cassette players and radios. Therefore, even though the job remains the same, the products hired to perform that job have changed. Why? Customers use a set of metrics—performance outcome measures—to judge how well a job is being done or how well a product performs this job. Today the iPod is judged by consumers to perform better against these outcome measures than the alternatives, so today more people are hiring iPods.

Ulwick offers specific, actionable advice on constructing these outcome statements to avoid the problems caused when customers offer (1) solutions, (2) design specifications, (3) customer need statements, or (4) customer benefit statements. Ulwick suggests a strict pattern for requirements statements. These statements should provide a direction for improvement (i.e., minimize, increase, decrease), should contain a unit of measure (i.e., number, time, frequency, likelihood), and should state what outcome is desired—for example, "increase (direction) the number of songs (unit of measure) I can fit on my iPod (outcome)," which is far superior to "I want a bigger hard drive in my iPod." There are many ways to increase the number of songs you can fit on an iPod—for example, a better music compression algorithm—which would not be very useful if the customer actually wanted a bigger hard drive to back up the data from the computer.

Ulwick omits two important pieces of information in this section. First, requirements other than one-dimensional or linear are discussed in this book. The Kano model, for example, includes must-be and attractive, or "wow," requirements (Shen, Tan, and Xie, 2000) in addition to the one-dimensional requirements here. Second, Ulwick suggests that for any given job customers apply between 50 and 150 metrics, or outcomes, to determine how well the job is being done; however, the reader is given no indication of how difficult it is to assemble this list of metrics. For this, we can turn to Griffin and Hauser (1993) to find out that it takes between 20 and 30 customer interviews to identify 90% or more of these metrics in a relatively homogeneous customer segment.

In "Identify Opportunities," the greatest contribution of this book, is a simple algorithm to prioritize opportunities by examining both how important the outcomes are to customers and how satisfied customers are with the current offerings. Outcomes that are both important and unsatisfied represent solid opportunities for improvement.

In this method, importance and satisfaction are both measured on five-point scales. On the importance scale 5 means critically important, and 1 means not important at all. On the satisfaction scale 5 means totally satisfied, and 1 means not satisfied at all. The results are reported as the percentage of respondents providing a score of 4 or 5. The results are then used to calculate an opportunity score according to the following formula:

$$\begin{aligned} \text{Opportunity} &= \text{Importance} \\ &+ \text{Max} ((\text{Importance} \\ &- \text{Satisfaction}), 0) \quad (\text{p. 45}) \end{aligned}$$

Technically, there are two problems with the formula. First, satisfaction is subtracted from importance; this is like subtracting apples from broccoli. Ulwick also recognizes this flaw but casually dismisses the criticism, saying it "doesn't hold up when talking about jobs, outcomes and constraints" (p. 47) but offers nothing to support his proposition other than anecdotes. Second, Maslow's Theory of the Hierarchy of Needs suggests that importance and satisfaction are inversely correlated variables (Schiffman and Kanuk, 2003). Because these variables are inversely correlated, once people are satisfied with a particular outcome they tend to rate that outcome as unimportant, whereas unsatisfied outcomes continue to be rated as important. However, my conclusion, after running

several simulations, is that the formula has the effect of suppressing the opportunity ratings of truly unimportant outcomes while preserving high opportunity ratings for truly important outcomes and those that are correlated with satisfaction, which is the desired behavior for the algorithm.

The Opportunity Score becomes the basis for making targeting and resource related decisions where higher opportunity scores represent better opportunities. Ulwick proposes four classifications of opportunity scores: (1) Scores greater than 15 represent extreme areas of opportunity that should not be ignored; (2) those between 12 and 15 are described as “low-hanging-fruit,” ripe for improvement; (3) those between 10 and 12 are remain worthy of consideration, particularly in mature markets; And (4) those less than 10 are typically viewed as unattractive in most markets.

If applied correctly, I believe the techniques described in this book will contribute to the development of products that will be successful in the market. In proposing his method, Ulwick disparages several other techniques; nevertheless, the reader should remember that techniques are often erroneously labeled as flawed when in fact they were misapplied or poorly executed.

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## ***Ten Rules for Strategic Innovators: From Idea to Execution***

Vijay Govindarajan and Chris Trimble. Boston: Harvard Business School Press, 2005. 224 + xxvii pages. US\$29.95.

Forget. Borrow. Learn. These are the three challenges established companies must address to give strategic innovation the best chance for survival, according to Vijay Govindarajan and Chris Trimble.

The authors share their theories and findings through the stories of five companies that have launched what the authors call “strategic experiments” (p. xix). These experiments are new ventures that have high growth potential, unproven business models, and great uncertainty, among other factors typical of many start-ups. The authors identify the challenges and expose them through the case studies, provide analysis, and include a short assessment to allow readers to determine if they are facing similar challenges. The authors conclude the last chapter with their set of 10 rules to meet these challenges.

The focus of the book is not incremental innovation but on those products or service ventures that require new business models to survive. Therein lay the challenges. To be successful the new venture, referred to as NewCo by the authors, must compete for the same resources as the established business, CoreCo. It must do so while operating very differently and forging its own path.

Through examples such as Hasbro Interactive, Corning Microarray Technologies, and New York Times Digital, we learn about the three challenges. The first challenge, “forgetting,” (p. 7), shows the powerful influences that the current CoreCo culture and practices can have on the fledgling NewCo. Success depends on NewCo's ability to forget what made the current business successful and on CoreCo's ability to allow NewCo to find the models and processes that are right for the new emerging opportunity.

The second challenge discussed is the “borrowing” (p. 7) challenge, which requires a delicate balancing act between providing NewCo such things as the capital, manufacturing expertise, and technology required while still allowing NewCo to forget. The third challenge, “learning” (p. 8), asks that NewCo be judged on its ability to learn rapidly instead of expecting NewCo to meet specific market or financial projections. Once the three challenges are explored thoroughly, the authors provide 10 rules, such as “Rule 7: NewCo needs its own planning process” (p. 193) executives can follow to overcome these challenges and increase their odds for successful strategic innovation.

*Ten Rules* is generally well paced and provides sound advice to help established companies create a competitive advantage over start-ups when attacking high-growth, high-risk opportunities. The challenge facing the authors is evident. They have attempted to generalize a very complex problem and to provide specific guidelines for solving it. Though the authors