

Is VOC Killing Innovation?

Not Unless
You're Missing
the Point

BY JOHN MITCHELL

A posting on iSixSigma.com asks, "Is VOC [voice of the customer] Killing Innovation?" A recent iSixSigma blogger laments "VOC Gone Wild." Product developers are urged to silence the voice of the customer in favor of "new" ways to understand customer needs. At every turn, VOC seems to be getting a bad rap.

Yet successful new products and services have been developed through a deliberate analysis of VOC. The 2004 Comparative Performance Assessment Study by the Product Development and Management Association Foundation found that VOC is used by about 50 percent of companies on about half of their new product development efforts. VOC, the study showed, is one of a few tools that differentiates the best from the rest in developing new products.

People who think that VOC stifles innovation either do not understand the meaning and purpose of it, or do not know how and when to use it. Examining three common "misses" will help clarify VOC's important role in Six Sigma and product innovation.

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Miss No. 1: Misdefining VOC

Companies affix the “voice of the customer” label to nearly everything even remotely tied to customer information and feedback. This includes technology support and help-desk conversations, online customer suggestions, anecdotes from the sales team, and comments passed through the company ombudsperson to senior management. The familiar maxim, “The customer is always right,” is a guideline at many businesses. Yet there is a danger in terming anything customers say as VOC. Defining VOC at that level risks turning it into nothing more than a litany of complaints and hearsay – hardly the stuff of innovation.

Even in sophisticated new product development organizations, VOC can be construed too broadly – as any type of market research that elicits input from customers. Advertising testing, price analysis, brand imaging and competitive intelligence are certainly valuable market research tools. But they do not obtain the voice of the customer.

So what is VOC? A 1993 article, “The Voice of the Customer” in *Marketing Science*, defined it as market

research that delivers a set of customer wants and needs that is: 1) complete, 2) expressed in the customers’ own language, 3) organized into a hierarchy, and 4) prioritized by customers based on importance and current satisfaction. Other practitioners have developed somewhat looser definitions, but at its core, VOC has always been about identifying, organizing and prioritizing customer needs.

Refining the definition to a specific market research activity at a specific point in new product development positions companies to charter a formal VOC project with a known goal (identifying customer needs) and dedicated resources (staff and budget). Those companies do a better job of capturing customer needs and, as a result, are more innovative.

Poor performers, on the other hand, tend to cobble together insights from miscellaneous market research and try to infer what the customer wants. That scattershot approach can yield incomplete results laden with ambiguity and the development team’s own biases. Companies adopting that approach would be better off gathering in a conference room and guessing what they think customers want; it would be just as ineffective and would cost much less.

VOC Best Practices

Although VOC is an integral part of the DMADV (Define, Measure, Analyze, Design, Verify) framework for Design for Six Sigma, it predates Six Sigma by more than a decade. VOC was inspired by quality function deployment (QFD) processes first used in 1972 at Japan’s Kobe Shipyard. A 1993 article, “The Voice of the Customer” in *Marketing Science*, examined the use of VOC as an input to QFD and provided empirical evidence supporting techniques that have since become best practices in new product development:

Conduct One-on-one, In-person Interviews

One-on-one, in-person customer interviews often are the best method for capturing customer needs. They are superior to focus groups and web surveys because they allow interviewers to probe deeply and get beyond the solution to the underlying need. Researchers concluded that 20 to 30 one-on-one interviews should identify 90 percent or more of the needs in a customer segment. Expect interviews to last 45 to 60 minutes.

Use Transcripts to Record Customer Responses

Transcripts of customer interviews are far better than note taking or other non-verbatim methods of data collection. Transcripts preserve the customers’ own words and phrases, and prevent introduction of bias through premature translation of customer needs into solutions and filtering of information considered unimportant. Moreover,

transcripts are an easily accessible record of customer interviews that can be analyzed thoroughly to ensure that no need is left out.

Organize Customer Needs in an Affinity Diagram

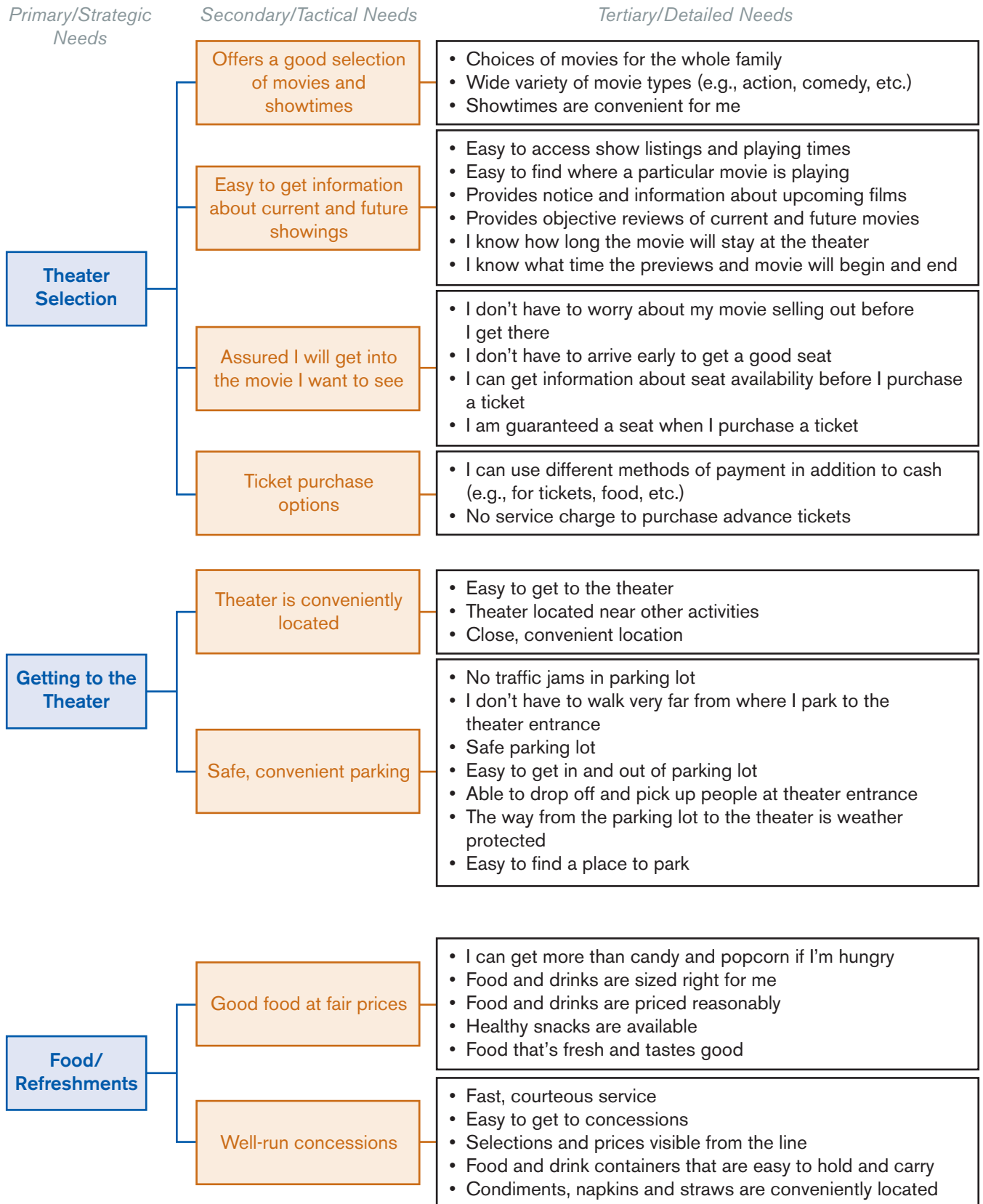
An affinity diagram, or KJ analysis, to drill down from general needs to specifics, should be based on what customers say, not the evaluations of internal product teams (Figure 1 on page 54). Researchers found that internal teams tend to organize customer needs based on how they developed a product (technology by technology), whereas customers tend to organize needs reflective of how they use the product (function by function). When customers are excluded from the KJ process, some of the voice is lost.

Have Customers Prioritize Needs

Likewise, customers, not internal teams, should prioritize the needs (or more often, groups of needs), as part of the KJ process or in a follow-up survey. Each customer should score each need on two dimensions: 1) importance, which reflects the priority of each need in the customer’s product evaluation process; and 2) performance, which reflects how satisfied the customer is with how well current products (or substitutes) meet each need. With those combined scores, the product development team can identify the most important unmet needs, which form the best areas of focus for innovative new product development.

Figure 1: Sample Affinity Diagram

The Voice of the Customer for Movie Theaters



Miss No. 2: Asking Customers for Solutions

Henry Ford is rumored to have said that, if he had asked customers what they wanted, they would have said a faster horse. Many product developers fear that VOC will not let them be more creative than their customers. That result is possible – if they use VOC to solicit technical requirements and desired features. Here is what they will get:

- Worn-out ideas that product teams have already considered, or a laundry list of desired features gleaned from other products, leading to a “me-too” product, at best
- Generalizations, such as “easy-to-use,” “cost-effective,” and “durable,” that say everything, yet say nothing. Product developers have to know what those terms mean to a customer, in precise detail and with specific examples of previous products that lacked those qualities.
- Demands for the same product, but at half the price

With such subpar results, it is no wonder that some product managers have concluded VOC kills innovation.

True VOC goes much deeper than features, solutions and specifications – to underlying customer needs. A *need*, according to the *Marketing Science* article, is “a description, in the customer’s own words, of the benefit to be fulfilled by the product or service.” To tease needs out of customers, good VOC practice favors an indirect approach, including open-ended, probing questions; customer storytelling; and ethnographic observation. The objective is not to figure out what features customers

want, but rather why they want those features.

For example, most customers do not really want four-wheel drive or a 5.0-liter V-8 engine; what they actually want is to tow a camper on a sandy beach or push a snowplow up a steep grade. The latter are the real needs, while the former are what some customers perceive to be the solutions to those needs based on their experience. Are four-wheel drive and a big engine the best solutions? Maybe. Are they the only solutions? Probably not.

If VOC teaches us nothing else, it shows that needs and solutions are fundamentally different. Getting past the solution to the underlying need opens up a world of opportunities for new product innovation and lets product developers be more creative than customers ever could be.

Miss No. 3: Putting First Things Last

Some companies collect VOC at the end of the new product development process to confirm that a product meets customers’ needs. Technically speaking, it is possible to execute a VOC project at any stage in the product development life cycle. But it would be foolhardy to try to do it anywhere other than early in the process (Figure 2), during the Measure phase of DMADV (Define, Measure, Analyze, Define, Verify).

Gathering customer needs for new product development adds little, if anything, to a product that is already well developed. Moreover, product teams that use VOC to “validate” that a product meets customer needs can be assured their *a priori* assumptions will be correct. A team that has spent thousands of hours and dollars developing a new product has little interest in being proved wrong by objective market research. More often, teams may ignore the results altogether or simply fit their interpretation of VOC to the dimensions of the product instead of scrapping the entire product or committing to an overhaul.

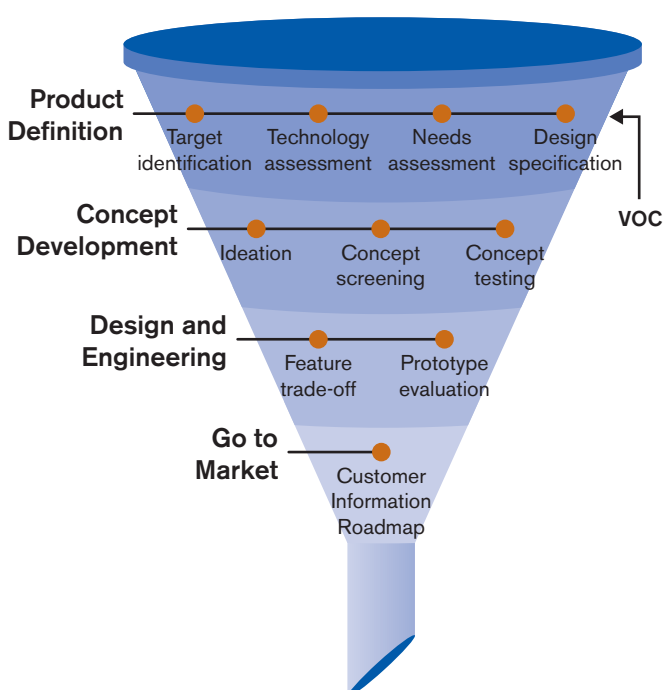
Keeping VOC as part of the fuzzy front end of new product development, or early in the DMADV process, ensures that innovation is directed toward solving important, unmet customer needs.

The Path to Real VOC

No Six Sigma professional would attempt to optimize a process without first understanding the root cause. Similarly, no product developer should attempt to build a product without first understanding, in detail, how the product will deliver value to customers – in other words, what the customers need.

Real VOC, done correctly and at the right time, does not kill innovation. Rather, it is a vital and necessary component that can give birth to exciting new ideas. ♦

Figure 2: VOC in New Product Development



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