

An Ounce of Prevention: VOC in Medical Devices

Since we first began helping clients listen to the Voice of the Customer (VOC) in 1989, Applied Marketing Science has watched dozens of industries embrace the notion that customers do not buy features and specifications, but rather products that solve important unmet needs. While any company can benefit from understanding the VOC, medical device firms arguably need it the most.

Why is this so? We see two factors at work. For one, the medical market is highly sophisticated. If your product is a checking account, air travel, or deodorant, it is far easier to see eye-to-eye with your customer, and usually, you know more about your product than your customer ever cares to. Not so with clinicians, who spend years learning and practicing diagnoses and procedures and are experts in every sense of the word. Without similar experience, product developers will always be at a disadvantage in discussions with clinician-customers – customers simply know more. Yet many companies rely on their own intuition, supported by anecdotes from the field, to lead them to a set of “requirements” with little basis in facts and data.

Second, medical devices are often highly complex and are always highly regulated, leading to a much longer and more intensive product development effort than in other industries. Devices often require thousands of hours at the engineering bench to get the “science” right, followed by an exhaustive regimen of laboratory and clinical testing to prove safety and efficacy, before a product can even be mentioned to potential customers. A finished device represents a major investment of time and money, the loss of which, should the product perform poorly, can devastate a company and would certainly demoralize the team.

Most medical device product designers know that misunderstanding customer needs is a leading cause of new product failure, yet many still do not invest enough in systematically capturing and analyzing the Voice of the Customer. Some lean heavily on advisory panels of leading physicians, who often move from one company’s board to the next and rarely represent the mainstream. Others haphazardly convene a focus group, visit a few big hospitals, and perhaps commission a web survey, hoping that what results will be a list of “must-have” features. Worse still, many simply ignore customers altogether, focusing on the bench science to develop cutting-edge technology and then relying on massive marketing and sales budgets to persuade customers of their products’ supposed value.

If any of these scenarios sound familiar, perhaps it’s time to rethink how you hear the Voice of the Customer at your company. Leading companies in every industry have adopted formal VOC processes, and many have built deep internal capabilities for executing the research necessary to capture, interpret, and act on customer needs. Yet while best practices do exist, they take time to develop and perfect, and cannot be internalized overnight in any industry. Moreover, medical market research is easy to get wrong and tough to get right, and it is always costly to field. Given all that is at stake, it makes sense to develop a coherent strategy and methodology before undertaking any serious VOC research, and to call in an outside expert for training or consultation when needed.

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A Better Way to Bundle

The *affinity diagram* is a recognized “best practice” in New Product Development, earning a reputation as an efficient and intuitive tool for organizing customer needs into a logical hierarchy for product planning purposes. In their landmark article, “The Voice of the Customer” (1993), Professors Abbie Griffin and John Hauser concluded that involving customers in creating the affinity diagram was unequivocally better than leaving it to the internal product development team – a common practice both then and now. Taking their advice, many companies began using customer focus groups to build the needs hierarchy. Yet Griffin and Hauser suggested a more rigorous process where a large sample of customers would individually create affinity diagrams, which would then be statistically merged using cluster analysis. This method would reflect the independent thinking of a larger number of individual customers and would avoid the “groupthink” mentality inherent in focus groups. Moreover, by asking participating customers to choose an “exemplar” need statement from each of their individual groupings, the process would provide concrete information from which to name each of the resulting clusters. At AMS, this process became VOCALYST®.

Following the explosion of online market research, AMS began to explore moving this exercise to the web. Our goal, first and foremost, was to retain the integrity of Griffin and Hauser’s methodology; online affinitization needed to yield the same level of precision as the original model using paper cards. After years of research and testing various prototypes internally and with several clients, we began offering online affinitization to our VOCALYST clients, introducing several important benefits, including:

- **Faster completion times.** The use of paper cards typically requires telephone recruiting, followed by mailing a packet of cards, reward money, and a postpaid envelope for the respondent to return their sorted cards to AMS. The data are then entered manually. Turn-around time for the whole data collection process often exceeds two weeks. On the other hand, web-based card-sorting lets respondents complete the exercise in about a day or two, and because paper-shuffling is eliminated, we retrieve the data instantaneously in electronic form and can begin analysis quickly.
- **Easier recruiting.** Thanks to the growing multitude of opt-in web-based panels (i.e. people who agree to participate in market research studies in exchange for cash or prizes), we can now recruit for many studies using e-mail. Whereas telephone recruitment typically takes one to two weeks and requires the services (and expense) of a live recruiter, e-mail is automated, letting us complete recruitment in a matter of days or in some cases, hours.
- **Lower costs.** Online card-sorting eliminates the administrative expenses of printing, mailing, postage, and data-entry, and yields significant savings in respondent incentives (the reward paid to those who participate). Web-based card sorting allows incentives to be paid only to those who complete the exercise, rather than mailed to all who agree to participate at the outset. Furthermore, because participants are already enrolled in a panel, the incentive required per respondent can often be less.

Despite its clear benefits, online card sorting is not appropriate in all situations, such as when much of the target population is not web-literate – for instance, the elderly, the less educated, or people in developing nations. Also difficult are narrowly defined populations with highly-specialized skills or training, as is the case with certain medical specialties. Nevertheless, this method is proving to be a major advance in our VOCALYST® service – a classic case of “better, faster, cheaper” results for our clients.

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