

VOICE OF THE CUSTOMER (VOC)

Enhance Quality by Capturing
Stated, Implied, and Silent Needs

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INTELEX


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INTRODUCTION



Businesses are often good at speaking to customers. From persuasive advertising through both new and traditional marketing channels to public relations, businesses have developed powerful mechanisms for delivering messages to customers with the goal of convincing them to buy products and services.

Listening, however, is equally as important as speaking. It's also an area in which many businesses perform poorly, despite evidence that a failure to listen can contribute to both customer dissatisfaction and attrition. (Macnamara, 2018) When organizations do listen, it's often only for the purpose of upselling or placating customer anger after an event that reflects poorly on the business. An excellent example of the latter is the now frequent event of companies responding to being shamed on social media by promising to immediately investigate customer dissatisfaction. While this might be best practice from the perspective of public relations, quality professionals need to help organizations understand that listening to customer needs during the early stages of product and service development can have a significant positive impact on quality costs by ensuring customer satisfaction and reducing the likelihood of waste and rework later.

Yet listening to customers is not as easy as it might seem. Nor is it an end unto itself. After a business has listened to its customers, potential customers, or thought leaders, it needs to develop processes for analyzing, communicating, and using the insights they've learned. Unfortunately, many businesses often seem to care more about the positive optics of being seen listening instead of the more crucial work of acting on what they've heard. Simplistic methods of customer feedback, such as polls and surveys, while helpful in some respects, do little to uncover the fundamental motivations and responses that represent the true Voice of the Customer (VoC).

The VoC is more than simply what the customer says, and the "voice" is more than what they tell us through language. According to ISO 9001:2008, quality is "the totality of characteristics of an entity that bear upon its ability to satisfy stated and implied needs." In ISO 9001:2015, this evolved to become the "degree to which a set of inherent characteristics of an object fulfills requirements." Quality professionals have therefore come to understand that customers derive satisfaction and delight from more than just the things they tell businesses about; they want to be satisfied by things they think the business already knows about them without having to be told, as well as by those things of which the customers themselves might be unaware.

If a business can listen to, organize, and prioritize the insights derived from listening to the VoC, it can create solutions that delight customers, better prioritize customer requirements, and improve or discontinue products that no longer serve customer needs, all of which creates a superior customer experience. This three-part series of Insight Reports will look at how business can use the quality managements tools for listening to the VoC to better identify customer needs, understand those needs, and use those insights to help create meaningful customer experiences.¹

¹ Readers looking for a more in-depth analysis of quality and the VoC should refer to Freeman, G. & Radziwill, N. M. (2018). "Voice of the Customer (VoC): A Review of Techniques to Reveal and Prioritize Requirements for Quality." *Journal of Quality Management Systems, Applied Engineering, and Technology Management (JoQAT)*, Vol. 2018, Issue 5, October. <https://joqat.files.wordpress.com/2018/09/full-manuscript-17.pdf>

THE VOICE OF THE CUSTOMER (VOC) PROCESS



The general definition of listening usually suggests that it is a single action or activity. In reality, listening to the VoC is a process that starts at listening, but then moves on to organizing, prioritizing, analyzing, and applying the information obtained from listening. These Insight Reports will consider a four-stage process for incorporating the VoC into a plan for reaching the goal of creating a holistic customer experience. This effort goes beyond the needs that the customer articulates and considers their entire experience from the initial introduction to the product through to the experience and post-experience communication of their experience with other customers.

An important distinction in VoC processes is that between stated, implied, and silent needs. Stated needs are the needs customers can articulate. Businesses typically capture these needs with tools with which customers can engage, such as focus groups, feedback forms, surveys, or interviews. These are traditional marketing approaches that are relatively easy to use. They can also be deceptive, as customers might be anything from dishonest about their activities to unaware of their true motivations when interacting with the product. Implied needs can be more difficult to capture. These are things that the customer does not articulate, often because they consider them too obvious to mention, but that they still very much want and need. For example, customers won't articulate that they need a washing machine to clean clothes. Rather, they assume such information is obvious to the product designers. Silent needs are perhaps the most difficult to understand, though these can also produce the most useful insights. These are needs that customers don't articulate and are usually not even aware of, but which businesses can surmise, analyze and ascertain through methods that measure context, relationships, and needs expressed by societal trends.

In this first Insight Report, we'll look at the techniques businesses can use to listen to each of these three types of VoC. An effective VoC program will use a selection of methods from each of the three types to suit their needs, abilities, and resources.

STATED NEEDS

Businesses can capture stated needs through a variety of methods, some of which are in regular use by marketing and customer experience teams. None are obligated to use all of them, but using a broad selection of them can ensure a business is able to get the broadest cross section of articulated needs from its customers.

Surveys and Direct Elicitation

Surveys are a popular method for collecting feedback that is easily quantifiable. They use predefined questions in a variety of formats including fillable text boxes or multiple choice. Researchers can conduct surveys easily in person, over the phone, through web forms, or through video. Surveys are useful for assessing and monitoring customer preferences and satisfaction, as well as for evaluating the impact of changes to products or services.

Benchmarking

Benchmarking is a practice in which organizations study how other organizations satisfy their customers' needs. It is a means to study best practices and learn how to pinpoint weaknesses in processes and design workflows.

Gemba Visits

Gemba is a technique in which the researcher goes to the workplace to get direct information about what customers want and need. It can be an excellent technique for observing workers directly in their environment, which is particularly useful when customers and workers don't feel they have the freedom to complain openly.

Focus Groups and Customer Advisory Panels

Focus groups and customer advisory panels allow researchers to spend time with customers to solicit answers to specific questions or engage in wide-ranging brainstorming sessions. These events can be conducted in person or with collaborative technology.

Social Media Analysis

Social media feedback can provide timely and unmediated access to customer insights. These insights can be addressed and remedied immediately when necessary.

Chat Transcripts and Customer Service Notes

Transcripts and notes of online chats or calls with service representatives provide useful evidence of product deficiencies, customer difficulties, and the strategies the customer service representatives employ to address customer needs.

Web Analytics

Web analytics illuminate customer priorities when they visit an organization's website. By monitoring the traffic on specific parts of the website, the organization can extrapolate conclusions about the customers' needs and interests. For example, heavy traffic on the trouble-shooting or technical assistance portion of the page may indicate problems with product design or documentation.

Feedback Forms

Businesses can provide a feedback form to a customer immediately after an interaction to measure their reactions to products and customer service.

Emails

Emails from customers who have interacted with the organization's products or services can be an excellent source of unstructured feedback, particularly if they are responding to negative experiences.

Suggestion Box

Though it might seem old fashioned in a technology-driven world, the suggestion box remains a valuable way of collecting anonymous feedback from both employees and customers.

Analyst Reports

Organizations can purchase reports from research firms such as Gartner or Forrester to get access to market research information gathered using more complex methods and larger data sets.

Customer Complaints

Organizations should analyze customer complaints to look for trends that illuminate the process or product failures that lurk behind customer satisfaction.

Product Cancellation Information

Providing a feedback form immediately after a customer cancels a product or service provides immediate information about the thoughts and feelings that motivated the action.

Lost Deals

Sales teams can collect valuable insights from informal conversations with customers after failed bids or deals. Some organizations have formalized this exercise and created a business analysis role dedicated exclusively to analyzing data and insights from lost deals.

Delphi Method

The Delphi Method is an interviewing technique in which researchers present subject matter experts with multiple rounds of questionnaires. Respondents then deliberate during each round until they narrow down their responses and reach a consensus.

Sales Meetings, Service Calls, and Other Personal Interactions

Personal interactions between sales teams and customers can produce valuable anecdotal information that would often not be included in a survey. The most significant problem with this method is that these insights are rarely captured or documented, which reduces the opportunity for analyzing and acting upon them.

Willingness-to-Pay Data

This method distinguishes between two customer perspectives on the financial investment they are willing to make into a product. The first is how much they are willing to pay for a product (WTP). The second is the minimum amount a person is willing to accept to either abandon a product or to put up with negative and unsatisfying product features. Determining these amounts can provide significant insight into the financial value customers attach to specific parts of a product.

Warranty Data

Collecting data during the servicing of warranty claims can provide valuable information about product failures and customer dissatisfaction, as well as the ways in which customers think the products fail to live up to their promised functionality.

IMPLIED NEEDS

While the VoC tools for collecting stated needs have their origins in traditional marketing and sales techniques, those for collecting implied needs have their origins in the fields of psychology, philosophy, ethnography, and data science. This section provides a brief introduction to some of the most common methods for implied needs. Organizations should use a complementary set of methods for both stated and implied needs.

Lead User Process

Lead user process relies on the expertise of early adopters and thought leaders, what are known as “lead users.” Lead users are attuned to their needs and can often anticipate the needs of the rest of the market months or even years ahead of time. Users who lag behind lead users often do not have the deep experience to contextualize their needs when providing standard marketing feedback using the standard methods for stated needs.

Researchers should use multiple methods for gathering both stated and implied needs from lead users. They should then analyze the information to design new product attributes, create marketing and communication plans for delivering that solution to a future market, and shaping that market to anticipate its future wants and needs.

Typology of Customer Value

The relationship a consumer has with a product can be extremely deep and contextualized, with many different influences impacting its perceived value. Holbrook’s (Holbrook, 1996) Typology of Customer Value is a way of organizing and expressing these complex relationships in a way that allows product designers to understand better the dynamics of these relationships. The Typology of Customer Value demonstrates that customers make judgements about products and services as they engage with them, and that the concept of value reflects the entire experience. There are three components of customer value:

1. **Extrinsic vs. Intrinsic:** Extrinsic value considers the customer experience as a means to an end. Intrinsic value means the experience is valued for what it is and that it’s the experience, not what the experience produces, that has the primary value.
2. **Self vs. Other:** Self-oriented consumption measures value according to what it can do only for the consumer as an individual. Other-oriented consumption focuses on the ways in which the product or service is valued by others and the impact it will have on people beyond the immediate consumer.
3. **Active vs. Reactive:** Active consumption looks at the influence of the customer over the product, while reactive looks at the influence of the product over the customer.

Table 1 shows an example of how these components are organized so that researchers can analyze the ways in which customers value the product experience. For example, to articulate the self-oriented, active, extrinsic form of value, the organization can ask, “How can I make this product or service more convenient for my customers?” To explore the other-oriented, reactive, extrinsic form of value, ask, “How can I enhance my customer’s reputation if he or she owns this product or uses this service?” Stepping through each of the eight combinations can unveil new insight into the customer’s implied needs, which can then be incorporated into everything from product design to marketing and sales approaches.

		EXTRINSIC	INTRINSIC
Self-Oriented	Active	Efficiency (Convenience)	Play (Fun)
	Reactive	Excellence (Quality)	Aesthetics (Beauty)
Other-Oriented	Active	Status (Success, Impression, Management)	Ethics (Justice, Virtue, Morality)
	Reactive	Esteem (Reputation, Possessions)	Spirituality (Faith, Ecstasy, Sacredness)

Table 1. Holbrook's Typology of Customer Value.

Prosumerism and Customization

Prosumerism is a practice in which consumption and production are not opposites but are instead one multi-faceted practice in everyday life. In the 1980s, prosumerism described customers performing tasks that were usually done by commercial producers, such as growing their own food. In contemporary prosumerism, consumers blend the categories of production and consumption seamlessly. For example, when someone purchases ingredients to make food and then sells that food, they are both consuming and producing. Most importantly, they are consuming for the purpose of creating a new product because they have identified a market opportunity that they can fill.

Customizing existing products is another important manifestation of prosumerism. If someone purchases a new car, but then replaces the wheels with a multi-coloured set, upgrades the stereo, and gives it a custom racing stripe, they have consumed the new product knowing that it does not actually meet their requirements, and have then consumed other products, such as the wheels and the stereo, so that they can make the car into the product that actually suits their needs. This can lead to communities of practice that produce videos, recipes, blogs, and tutorials on customization, each of which can be extremely valuable sources of information that researchers can use to explore the ways in which prosumption helps to meet the deeper needs of consumers. People who consume raw materials to make their own goods or to customize existing products are demonstrating that they have a strong sense of what their needs are and that those needs are not currently being met by existing products.

New and customized products, as well as the documentary artifacts from communities of practice, provide extremely valuable sources of information for organizations that are researching the implied needs of VoC.

Experience Sampling

Experience sampling is based on the idea that knowing the customer means knowing them in the context of their lives and their environment. This can help product designers gain a deeper understanding of the ways in which consumers incorporate products and services into their overall lived experience. In experience sampling, consumers use a digital interface to answer questions that researchers put to them at various points during the day. The questions could relate to details about what the subject is doing, who they are with, how they are feeling, or anything that could provide researchers with additional insight into how consumers spend their time and navigate their environment. This insight can help organizations gain a deeper understanding of their customers and how to meet their implied and unstated needs and wants.

Repertory Grid

The repertory grid is an interview technique that reveals both conscious and unconscious factors that influence how consumers perceive the value of a product or service. Researchers can also use the results to understand larger organizational dynamics and relationships between individuals within an organization. The main value of this method is that it can be used to identify unique and uncommon quality attributes.

A repertory grid has three components:

- Elements represent the products, services or people to be discussed.
- Constructs represent how the subject views the elements. Each construct contains a positive or desired attribute (“product provides high customization”) and a contrast (“product provides no customization”).
- Links rate each construct along a scale, e.g. 1 for the positive element and 5 for the contrast, with the numbers in between representing an assessment somewhere between the two extremes.

Ergonomic Studies

Ergonomic studies can be an excellent way to learn about the unstated ways in which products and services have physical impacts on customers. This insight can be particularly useful in industries that require extensive amounts of physical labor, such as construction and manufacturing. Work-related Musculoskeletal Disorders (WMSDs) are often the consequence of poor equipment design, and ergonomic studies are therefore an important method for meeting the consumer need for a safer and healthier workplace.

The Prevention through Design (PtD) initiative by the National Institute for Occupational Health and Safety (NIOSH) is a research program that explores risks of poor ergonomic design and workplace safety. PtD uses three forms of data collection that cover both stated and implied needs:

- **Self-assessments** allow participants to respond to questions using questionnaires and interviews. This is often the least effective method, since responses can be imprecise and unreliable, and respondents may be unaware of the stresses that impact them.
- **Observational ethnography** allows researchers to evaluate workers on the job site. While this method has a strong data collection approach, it is often impractical and expensive.
- **Direct measurement** using sensors attached directly to customers’ bodies is the most accurate and effective method of data collection, because it provides a constant and unmediated flow of data to track movements and physical parameters in every moment. Unfortunately, not all factors should be measured directly. For example, direct measurement of spinal forces can be very insightful, but it is medically impractical to insert sensors into a customer’s spinal column to get information about a product’s impact on the body.

A/B Testing

A/B testing is a familiar method for experimenting with user experience design on websites. In a typical example, the website provides two options to the website visitor: A is the current version of the website messaging; and B is a modified version of the current version that tries something

new. Customers are assigned randomly to one of the two versions and asked which of the two they prefer. The results can help researchers and product designers discover whether there is a difference in preference between A and B. Even when customers might not be able to articulate their preferences on a survey, or effectively choose between options, an A/B test can serve as a powerful indicator of overall priorities.

Semantic Differential Technique

Semantic Differential Technique allows users to record their reaction to an object or concept using a scale that moves between two opposing terms, such as cold/hot, bright/dark, etc. The Semantic Differential Technique builds on the philosophical and linguistic distinctions between objects and representations and can illuminate connections of which customers themselves are unaware, such as the emotional responses a particular color of car can invoke – reflecting, for example, anger or hostility.

Kansei Engineering

“Kansei” is a Japanese word similar in meaning to “affect” in English, representing the feelings aroused by direct sensory perceptions or by imagining a product or service. (Schutte, 2014) Kansei attempts to measure human emotional responses by creating a controlled “VoCubulary” of terms that subjects can use to express their needs and feelings. By soliciting emotional responses, and not simply asking customers to provide lists of product features they would like, abstract ideals are represented as tangible features that will provide the emotional response the customer seeks.

Kansei Engineering uses four approaches to capturing and classifying VoC: (Huang et al., 2012)

- **Physiological monitoring** allows researchers to monitor emotions based on physical responses such as pulse rate, as well as electrical brain activity by means of an electroencephalogram (EEG).
- **Interviews** in which researchers can ask subjects questions like, “How would you describe this product?” using the kansei words to express their responses.
- **Inductive card sorts** present participants with a series of concepts or objects and asks them to sort these according to the natural categories that seem to present themselves.
- **Semantic differential technique**, described above.

Kansei engineering is typically applied in new product development, although it can also be applied for continuous improvement or innovation.

Zaltman Metaphor Elicitation Technique (ZMET)

The ZMET uses visual images to inspire subjects to associate words or feelings with concepts or objects. The premise of ZMET is that human cognition is structured around visual images, and that visual metaphors are key to accessing the structure of that cognition. This technique is often used in counseling situations where trauma prevents an individual from describing feelings directly. In these cases, insights into feelings and fears can emerge when the subject chooses pictures to reflect their emotional state or tells stories about what he or she sees in the pictures. Zaltman and Coulter (1995) explain that this method can uncover underlying emotional and cognitive factors from groups of customers.

SILENT NEEDS

Silent needs are those that the customer cannot always express or imply, perhaps because they are not even aware of them. While customers can't articulate these, researchers still need to uncover them, as they can mean the difference between success and failure over the full lifecycle of the product or service. In this section, we'll look at a few approaches that can be used to articulate and uncover the silent requirements.

Voice of the Customer Table (VoCT)

The premise of the VoCT is that while customers can articulate what they want, those wants don't always represent what they really need. For example, if the customer says, "the brakes on this car are terrible," this could be restated as, "I need to reduce the vehicle's momentum easily at any time." An example using this scenario is presented in Table 2. Organizations can use the VoCT to discover and respond to the customer's tacit needs, even if the customer isn't aware of them. Sometimes, VoCT analysis will uncover that the customer's articulated wants are actually a synthesis of several unstated needs. These are needs that the customer may not be aware of.

SITUATION	VOC	TACIT CUSTOMER NEED
Safely bringing a car to a stop.	"The brakes on this car are terrible."	The brakes don't stop the car quickly enough.
		The brakes take too long to engage.
		The brakes are noisy.
		The brakes need to be replaced too often.
		The brakes are too "sticky."
		The brake pedal is not easy to reach.

Table 2. Example of a VoC Table (VoCT)

Topic Modeling

Topic modeling uses mathematical techniques to define the relationships between collections of documents such as memos, whitepapers, and social media posts. This model characterizes the presence or absence of words or phrases, their proximity to one another, and the relationships that determine themes and structures of different documents.

Sentiment Analysis

Sentiment analysis examines unstructured text data and compares it to lexicons of words and their emotional characteristics to determine the tone, sentiment, and change in tone and sentiment over time. As in topic modeling, documents that are analyzed by sentiment can be books, papers, or short items like social media posts and Tweets.

Corporate Ethnography: Identifying the Unknown Unknowns

Behavioral economics and cognitive psychology have shown that people frequently make poor and irrational decisions and they are often not even aware of their own motivations. Traditional methods of listening to the VoC could, as a result, give companies partial or even misleading information about what customers want and need, while true motivations remain hidden both to the customer and the organization trying to meet his or her needs. Corporate ethnography studies customers within their own social context to understand better how they interact with and ascribe meaning to their environments. To generate the best data, a skilled ethnographer should manage this process.

Unlike traditional marketing approaches that use surveys and focus groups, this approach seeks to adopt the subject's perspective by observing and shadowing to determine whether behaviors confirm or contradict stated preferences. (Ladner, 2014) Several technology companies, most notably Intel, have used corporate ethnography with great success and have a roster of corporate ethnographers on staff to engage in these unique and insightful VoC initiatives. (Anderson, 2009) Armed with knowledge of the forces that underpin the desires that customers express, organizations can better meet customer needs to increase customer satisfaction.

ISO 26000: Guidance on Corporate Social Responsibility (CSR)

Published standards and guidance can also illuminate customer needs, especially when the needs are known at a high level but not a detailed level. For example, ISO 26000:2010 was introduced to standardize terminology and expectations for pursuing corporate social responsibility (CSR). CSR encompasses topics from ethics to philanthropy to environmental awareness. ISO 26000:2010 provides a framework for organizations to incorporate "the voice of society" into their approach, ensuring that customers' desires to protect human rights and the environment are properly addressed, even when those needs are not directly stated.

CSR is an issue of considerable urgency given the relationship between social responsibility and competitive advantage in many contemporary markets. ISO 26000 introduces seven key principles of social responsibility and suggests corresponding subjects that should be addressed in business processes and quality management (Table 3). Unlike ISO 9001, organizations cannot become ISO 26000 certified, so these best practices are provided only as guidance to help develop sound CSR practices.

SEVEN KEY PRINCIPLES	SEVEN CORE SUBJECTS
Accountability	Organizational Governance
Transparency	Human Rights
Ethical Behavior	Labor Practices
Respect for Stakeholder Interests	The Environment
Respect for the Rule of Law	Fair Operating Practices
Respect for International Norms of Behavior	Consumer Issues
Respect for Human Rights	Community Involvement and Development

Table 3. ISO 26000 Principles and Subjects

ISO 9241: Ergonomics of Human System Interaction

Another ISO family of standards that can reveal customer needs is ISO 9241, which broadly covers best practices for usability. (Bevan et al., 2015) The contemporary view of usability is that it is not just a characteristic of a product or an interface, but the degree to which a customer is able to use it to satisfy needs. Usability therefore considers effectiveness (the ability to achieve goals while reducing risk of negative outcomes), efficiency (the use of resources in achieving effectiveness), and satisfaction (freedom from discomfort, and positive attitudes towards the use of the product). It also emphasizes learnability, memorability, accessibility, maintainability, and ability to gracefully recover from errors.

Sensor Surveillance via Internet of Things (IoT)

The vast network of sensors that are now imbedded within many devices, from vehicles to virtual assistants to home appliances, can support machine-to-machine communication as well as the collection of vast amounts of data based on user behavior. This data does not rely on the customer's ability to understand and articulate their own behavior. Instead, sensor data can provide an unfiltered view of user behavior and interaction without the need to filter it through an incomplete understanding of motivations and actions. For example, fitness wearables (such as Fitbit) can provide evidence of a customer's level of physical activity — a more accurate assessment than if they were asked about activity levels through a survey or during a focus group.

Similarly, many of us have experienced a virtual assistant (such as Siri or Cortana) observing our statements, and then anticipating our needs (for example, by prepopulating search terms). IoT thus holds the potential to move from simply listening to the VoC to inferring the silent VoC. We can use the lessons learned to engage in closer and more personal conversations with the customer. As we help them learn more about their own preferences and behavior, our customer relationships can be based more on dialogue and shared learning opportunities.

Sousveillance

“Watching the watchers” or sousveillance has emerged as a counterpoint to the broad surveillance that is routinely employed to gather customer information. First discussed by Mann et al. (2002), the core concept is that some needs will never be made visible by surveillance. For example, consider the different narratives that might be revealed by police dashboard cameras versus cell-phone videos from multiple observers of a crime or brutality situation. This concept can also extend to refractive surveillance — surveilling one group can reveal information that can be used to influence or control another group. These authors provide the example of the Amazon Go store, where smartphone apps can identify and track the movements of customers, resulting in the “purest expression of a future of retail in which sensors in the built environment and the sense-making of machine learning render customer interactions with staff completely unnecessary.”

The implication for VoC data collection is this: everyone and everything will be collecting data, all the time. Organizations that can access and combine data from as many sources as possible will be able to assess and respond to customer needs most completely.

CONCLUSION



Quality management has traditionally looked at the internal workings of the organization to find efficiencies and reduce waste. Yet in a globalized market with increased customer power and choice, the most significant differentiator will be not simply who can provide the better product, but who actually listen to the VoC, analyze the information they collect, and use that new knowledge to give customers what they want and need. In the next Insight Report on listening to the VoC in quality management, we'll examine how to organize and prioritize the information gathered from the VoC listening activities.

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