

Quality for Tomorrow

by Peter Merrill

The future of the profession will revolve around innovation

THE WORK OF the quality profession has evolved over the years from quality control to quality assurance to quality management. But what is the next stage of evolution from quality management? Thinkers such as Peter Drucker,¹ A.V. Feigenbaum and Donald Feigenbaum² have pointed clearly down the road of innovation.

Globally, the quality profession is embracing innovation, which is proven by its inclusion in the 2011-2012 Baldrige criteria. Taking statements from just two of the categories:

1. Leadership should create an environment for innovation.
2. Use customer information to find opportunities for innovation.³

In 50 Words Or Less

- Innovation is the next realm in which quality professionals can make their mark.
- To be successful in this area, quality needs to become about fulfilling customer needs—spoken and unspoken—rather than meeting requirements.
- By embracing a four-step process, quality professionals can start contributing to innovation efforts.

The 2010 changes to the EFQM (formerly known as the European Foundation for Quality Management) Excellence Model also endorsed quality management's move into innovation management. The EFQM principles now include, among others, engaging customers to innovate, and nurturing creativity and innovation using networks as sources.⁴

Innovation is a natural development for the quality profession because it addresses several limitations quality practitioners currently experience in their work. Despite this, many quality professionals have been reluctant to take that road because it has not been clear where innovation fits with quality or what the word innovation really means. Some have even dismissed innovation as a buzzword.

In fact, the fit can be shown to be very comfortable after we gain a better understanding of the innovation process and the current limitations of quality in the bigger field of business strategy.

Requirements vs. needs

The core of the current limitations quality professionals experience in their work is that quality has increasingly focused on today's customer requirements instead of addressing the more fundamental issue of customer needs. Innovation is the process we use to address those unfulfilled needs and enable our customer to carry out a task in a new way.

There are several definitions of quality, including conformance to requirements,⁵ fulfilling needs and expectations,⁶ and achieving customer satisfaction. These variations occur due to the definitions being formulated at different points in the delivery chain:

1. **A customer has a need.** The organization creates value by enabling someone else—the customer—to

get something done and typically identifies a need through a marketing function.

2. **We agree on requirements to be met for some or all of the needs.** The organization offers a solution, typically through the sales function, and agrees on requirements that may meet some or all of the needs.
3. **The customer has expectations.** The organization endeavors to satisfy these expectations through its operations and may even delight customers by delivering beyond their expectations.
4. **A fit-for-purpose solution that conforms to requirements is delivered.** The organization achieves this through operations. If the deliverable is not fit for purpose, this is the definition that will generally be employed in a court of law
5. **Customer satisfaction, delight or dissatisfaction is provided.** Future business for the organization depends on whether the customer is satisfied. But this can be more difficult than it seems because, confusingly, customers often are reluctant to tell the organization when they are dissatisfied.

Unspoken needs

Until recently, the primary focus of quality has been customer requirements and conformance to customer requirements. This focus derives from an agreement with customers and obscures the fact that, upon arriving at that agreement, the customers probably had several needs that could not be met either because the organization was not capable of meeting them or because the customers did not even think to request them.

The quality professional then addresses the dissatisfied customers and tries to satisfy them by ensuring a problem does not recur. The work on customer satisfaction has focused on the customers' perceptions of whether requirements have been met.⁷ But that means the organization has not necessarily fulfilled the customers' needs, which leaves it vulnerable to the competition.

To illustrate this point about failing to fulfill needs, think about a simple need: You would like a picture of yourself. Two hundred years ago, you would need to employ an artist. The process was lengthy and expensive, but the subject of the picture was involved throughout the process, during which the picture could be adjusted.

We can define innovation as **quality for tomorrow.** This phrase recognizes that innovation is a lot more than **just tinkering with today's solution.**

More than 100 years ago, photographic film provided a cheaper and sometimes quicker solution. But film could take up to a week to develop, and the result could not be adjusted. The subject was not involved in the process. Attempts to speed up the process included Polaroid and 24-hour film services.

Steve Sasson at Kodak created digital photography technology in 1975, but Kodak failed to implement it because of its investment in film manufacturing and processing.⁸ Kodak instead differentiated its existing solution by being faster on delivery, cheaper on price and more reliable on performance. In other words, it chipped away at the cost factors.

But someone else implemented the game changer that made yesterday's solution obsolete. Now, digital photography enables the subject to be involved and for a picture to be retaken at zero cost if it does not meet a person's immediate need. We know what that did to Kodak, which filed for bankruptcy in January.

If organizations fail to define their customers' needs and instead focus on today's requirements, they will have a similar fate. It's crucial to recognize the fundamental issue that the starting point for delivering quality is the identification of customer needs and not the agreement of requirements.

The world of tomorrow

In the world of quality, we could define innovation as quality for tomorrow—the adopted tagline of ASQ's innovation technical committee. This phrase recognizes that innovation is a lot more than just tinkering with today's solution and playing with processes to reduce cost.

Innovation also involves getting inside the heads of customers to find needs they have probably forgotten or not yet formulated because they have accepted the limitations of the current market. That's why it's necessary for us to think more strategically about quality and broaden our vision beyond quality for today to quality for tomorrow.

Michael Porter's book on business strategy, *Competitive Advantage*, outlines five forces in the marketplace that influence an organization:

1. The threat of the entry of new competitors.
2. The threat of substitute products or services.
3. The bargaining power of customers or buyers.
4. The bargaining power of suppliers.
5. The intensity of competitive rivalry.⁹

In short, organizations must decide whether to compete in the market using price or product differentiation. Some can compete on price and are happy to do so. Organizations that are good at managing cost operate well in this arena. But that's where the competition is toughest.

The other strategy is to compete on product differentiations. This is a more complex strategy. Historically, quality management offered the attraction of removing wasted cost¹⁰ and differentiating from competition with a more reliable product.


But as more people understand quality management and as technology advances, that differentiation is disappearing. At the same time, quality management has become increasingly inward-looking and cost-focused.

The challenge now is that convenience and ease of use for the customer are achieved not just by providing quality and reliability, but also by providing innovative solutions that differentiate an organization from its competitors.

Order fulfillment

Look again at the delivery chain:

1. A customer has a need.
2. We agree on requirements to be met for some or all of the needs.
3. The customer has expectations.
4. A fit-for-purpose solution that conforms to requirements is delivered.
5. Customer satisfaction, delight or dissatisfaction is provided.



CONSIDERING THE GROWING importance of innovation in organizational success, it's crucial to have a thorough understanding of how to ingrain it and sustain it in your culture. Fortunately, Peter Merrill and ASQ are here to help. You can find his column, "Innovation Imperative," bimonthly in QP, as well as his book, *Innovation Generation*, in the ASQ Quality Press bookstore (<http://asq.org/quality-press/index.html>). ASQ members can pick up the book today for \$19.

It's vital to **step out of the box** and go toward a right-brained, creative solution that **separates an organization from its competitors.**

Innovation opportunities arise when organizations discover needs that have not yet been fulfilled. These unfulfilled needs usually occur because customers have not adequately defined the needs, or organizations lack the capability to meet those needs.

Innovation does not start in the R&D department; it starts with customers, whose unfulfilled needs are the trigger for innovation. Addressing those unmet needs is critical for an organization to have a competitive edge in the marketplace. The solution requires innovation in the product, business processes or business model.

At this point, quality professionals should start to see an even more comfortable fit with the world of innovation. They already have at their disposal several tools and techniques that address the four steps in the innovation process:

1. Identifying opportunities. The starting point uses the environmental scan, which identifies where economic, social, political and environmental changes have created pain for the customer. At this point, organizations should ask customers about their biggest hassles or identify where they waste the most time.

Getting the answers to these questions in a client environment will reveal many opportunities for innovation. The output of this inquiry is the customer pain statement—the first step in the innovation process.

2. Finding conceptual solutions. The quality profession is good at problem solving but tends to do it in a left-brained, analytical mode that leads to status quo solutions. At the data-analysis stage, it's vital to step out of the box and go toward a right-brained, creative solution that separates an organization from its competitors.

3. Making solutions user-friendly. The third process step is usually the job of the folks in the R&D department but also may include the establishment of new suppliers. This is the phase in which an organization conducts supplier assessments and, perhaps more important, risk evaluations and mitigation for potential new suppliers.

4. Delivering solutions. This is that point at which an effective quality management system, coupled with a sound value proposition, puts the new offering in the hands of the user. These last two steps in the innovation process are well established within existing quality systems.

Get on board

At this point, it should be clear to any forward-thinking organization that it's crucial to address customer needs and not just requirements if it wants to deliver quality for tomorrow. Any organization can accomplish this by building an organizational strategy that embraces innovation.

But that's only the beginning. Deploying the strategy will mean the organization must have a well-defined innovation process to capture needs and develop solutions in its quality system. And, as with successful quality management, all of the organization's employees must be fully engaged in the operation of that process. **QP**

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