

INNOVATION AND QUALITY GO HAND IN HAND

APQC and ASQ recently interviewed Scott Alexander, vice president of innovation at ROi (Resource Optimization & Innovation). Alexander oversees ROi's innovation strategy; his team works on identifying, developing, and commercializing innovative solutions to supply chain-related issues that reduce the total cost of care for health systems. In the following question and answer session, Alexander discusses how ROi views the connection between innovation and quality within the healthcare industry.

ROi is a provider-owned integrated supply chain organization, serving both its founder, Mercy Health System—an integrated delivery network of 46 acute and specialty hospitals across Arkansas, Kansas, Missouri, and Oklahoma—and healthcare organizations throughout the United States that share a passion for supply chain excellence.

GLOBAL STATE OF QUALITY 2

The second iteration of this first-of-its-kind ASQ-APQC global research will examine the state of quality worldwide, providing vital benchmark data that both individuals and organizations can use to improve current quality and continuous improvement programs as well as enhance business strategy. This [Spotlight Report](#) is the first in a series that will lead up to the results being presented in 2016.

1. How do quality and innovation go hand in hand?

Quality is, by its very definition, at the heart of healthcare—whether it's related to the high-quality products that clinicians use on patients or leveraging services to get products to the right place at the right time. For ROi, the most important measure is high-quality patient outcomes. We define high-quality outcomes as a scenario where a patient is seen by a clinician, the procedure goes smoothly with all of the right resources, and the patient has a positive outcome—the right products are available for the right clinician to treat the right patient at the right time. Since quality is the center point of what healthcare is, quality has to be a core consideration when it comes to innovation. Innovation is fundamentally the act of doing things better, faster, more efficiently, or with higher quality. At its core, innovation is process improvement—just on a bigger scale.

2. What steps should an organization take to foster a culture of innovation?

There are three key areas that really help drive a culture of innovation. The first is obtaining a better understanding and appreciation of what the customer is trying to accomplish. The second part is developing an interest and willingness to do things differently. Change is never easy, and trying new things always requires an investment in people to get them to understand the reasoning and potential of why change is being made. The last component is the organizational alignment to implement these new ideas that are proven to be successful.

3. How do you know when your organization has cultivated a culture of innovation?

This is a tough thing to know. There is a point where innovation can flourish, but it is more of a sliding scale than an on-off switch. An example of a highly innovative organization is Google, due to the way they manage and construct teams. On the flip side, the federal government is the perfect example of a very non-innovative organization. The government is a big and slow-moving organization that doesn't listen to their customer and, as a result, struggles to remain competitive. Just look at the success of FedEx versus the U.S. Postal Service—one has been innovative and successful, the other stodgy and bound to fail.

An innovative organization usually has standard metrics (like The Global Innovation Index—percentage of revenue that comes from products launched in the last five years). These leading organizations also look internally to see if employees are bringing up ideas and sharing them. Leading innovative organizations act on the internal ideas—rather than letting them disappear into a black hole. If action or research on the new ideas is not taken, you

are squandering good opportunities to improve. Furthermore, companies can only ask for ideas so many times and not do anything with them before employees and customers become disillusioned and innovation stops.

An executive interested in determining if he has an innovative organization should look at how fresh their ideas are, where they've come from, and how many people are excited to offer the next series of ideas for development.

One of the challenges many organizations face is asking for the wrong kind of innovation. Based upon the type of innovation companies are looking for, companies need to make sure they are asking the right audience. If organizations are looking for incremental innovation like how

to perform a current process better, then they should ask the frontline workers what they could see improving in their daily jobs. Alternatively, there is this idea of disruptive innovation, which is to do things radically different than what you have done in the past. This is not the type of innovation you will get by surveying your current employees. If an organization truly wants to be disruptive in its approach to innovation, they need to understand the needs the customer is trying to satisfy by using the company's products or services, and then, with a select group of people who are wired to do this, brainstorm new and novel interesting ways to solve those needs.

4. Do you involve the customer in the innovation process? If so, how? Or how do you know what the customer "wants?"

The more you can involve your customer in the innovation process, the more successful you will be. At ROI, the customers are the clinicians and the administration of the healthcare system, and they are intimately involved in every step of our innovation process. Often, you want to engage the customer to understand not only what they are doing, but also why they are doing it. There is a philosophy out there about the "jobs to be done"—as an example, "you don't buy a quarter-inch drill bit, you buy a quarter-inch hole." The idea behind that statement is to understand what your customer is trying to achieve, and then figure out the best way to solve the problem that they have.

At ROI, focus groups are critical in the innovation process, but ethnographic research, where we follow around customers as they go about their normal day, tends to be more helpful. Ethnographic research gives insight into what the customer is doing and why they are doing it. Following customers around while they do their natural jobs will provide you with a wealth of information on the how and why they do their jobs the way they do.

Sometimes it is easy to understand what the customer wants or needs. For example, at ROI, a lot of decisions are focused on quality. Several years ago, a company by the name of NECC was making intravenous medical compounds, but

55% of the organizations that participated in the Global State of Quality 2 Research use quality to spur innovation by creating open and collaborative environments with a focus on data sharing.

not following appropriate quality standards. As a result, dozens of people became sick and died from contaminated drugs given to them during hospital stays. This is a horrifying outcome and

39% of the organizations that participated in the Global State of Quality 2 Research use innovation to help drive profitability.

cannot be tolerated. ROi's members need to have faith that the organization providing these critical compounds is following the right standards—as healthcare providers, they are accountable for the health of their patients. As

a result of our understanding of the customers' need for safe, high-quality intravenous medical compounds, ROi is creating an intravenous drug compounding organization where we will create intravenous drugs to be used for patients within the Mercy Health System. Additionally, we will also commercialize the service to other health systems because they are not large enough to provide this service on their own.

5. What is the connection between innovation and quality? And what are the benefits of innovation as it relates to quality?

Innovation is really about creating a new generation of solutions for an existing problem. Broadly speaking, you are not going to see an innovation adopted unless it is significantly better than what was available previously. Quality is increasingly important in the healthcare field because of the strong financial component for the healthcare systems to perform. For example, a section of the Affordable Care Act called Value-Based Purchasing states if your organization has an unacceptable level of undesirable outcomes, Medicare will significantly reduce its payments for that system's services. Therefore, quality is even more important today. From my point of view, innovation comes from the recognition that quality in healthcare is good but needs to be great, and it has to be a center point for organizations.

As an example, Illuminaire Medical (an organization that Alexander has worked with in the past) is looking at infection control and prevention. They are using cutting-

edge marketing tools and best practices to inform clinicians about infection rates in their departments relative to other departments, either in the hospital or nationwide. These physicians are being informed about their quality as compared with similar physicians, and it creates a new level of dialogue about the importance of quality and infection prevention with those clinicians who matter most—the clinicians directly treating patients. A study showed this type of approach had a dramatic reduction (63 percent) in infections in a hospital in Miami, FL. It is exciting to see how technology can drive the quality of care for patients in such a direct manner.

6. For organizational leaders like the C-suite, how does innovation and quality affect the bottom line?

There is a very real impact as improvements in quality drive bottom-line improvements. For a real-life example, let's look at what the Mercy Health System did with ROi. Back in 2003, Mercy had a number of separate supply chain teams across the system. The solution was to integrate these groups together to drive and improve quality of service to Mercy, to insource some of the processes that Mercy thought could be done better internally, and to improve the overall impact of supply chain on health systems across the country. This decision is what birthed ROi over a decade ago, and as a result Mercy has seen improvements in the quality of care and a dramatic reduction in the cost of care. Specifically, in the last four years, ROi has driven a 10 percent reduction in the cost of care for Mercy. Other members of ROi have had similar experiences.

Mercy Health System, with assistance from ROi, has also received external recognition from organizations like Gartner because of the efficiency and effectiveness of their supply chain. The rankings identify organizations across the value chain that are focused on reducing supply chain inefficiencies, while improving the quality of healthcare. ROi is a top 25 worldwide healthcare supply chain because we have integrated the supply chain and have a laser-like focus on the quality of service we provide to our members.

7. There must be a balance between keeping costs down and driving high quality. From an organizational culture standpoint, what are some key components that need to be in place to create a thriving, innovation company?

Matching or balancing costs becomes a key consideration when you stand up new services or expand into new areas. ROi has scorecards for innovation for any new service that we might explore or look to launch.

The way our scorecards work is that we look at clinical, financial, and operation impact (i.e., how are you improving the quality of care our clinicians are giving) through this type of an effort. It is unlikely that we will pursue an opportunity unless patient quality is being improved.

8. We see more and more organizations performing daily testing/deployment of new products within a controlled group for immediate feedback and incremental improvements. What is the impact of quicker new product deployment on company innovation, and how does it affect quality standards?

ROi does employ this method, but not to the same pace as a tech startup might leverage this tool. Our pace of testing is tempered by the fact that we have to minimize any risk to patients undergoing care.

The reality is when you are doing innovation, 50 percent of your assumptions are wrong; you just don't know which assumptions are the wrong ones. The benefit of frequent testing is that it helps identify incorrect assumptions and gives you the opportunity to change course at a much faster or frequent basis. Testing at a rapid fashion to eliminate the incorrect assumptions allows ROi to land on a solution that most closely satisfies customer needs.

The process of rapid iteration is cheaper in the long run than pouring a whole bunch of money into a project hoping the wrong assumptions won't mean the project will fail. The concept that has worked best for ROi is to break a potential project down into smaller pieces, which become much more manageable to evaluate and decide upon. Smaller pieces allow for organizations to be more responsive and nimble to assumptions, and address the problems as they present themselves.

At ROi, we have this concept of "death threats" when discussing or presenting a new project. Examples of "death threats" might be things like customer interest in the concept, the expected profitability of manufacturing a component, or the regulatory path of gaining governmental approval. We ask and answer the following questions:

- What are the three things that are most likely to kill this project?
 - Death threat number one
 - Death threat number two
 - Death threat number three
- What is the plan to determine if those will actually end the project?

The goal is to determine if we can eliminate the risk that a given "death threat" kills the project. This process continues until we feel comfortable the team has found a solution to the first "death threat." The team then moves on to the second "death threat." This process continues until we have satisfied all "death threats." As we eliminate these threats to the project, the likelihood of success increases, quality increases, and overall project delivery improves.

We have found this is a very successful way to develop innovations that provide meaningful impacts to the healthcare system.

To learn more about the ASQ Global State of Quality 2 research project or to access additional resources please visit the ASQ Global State of Quality website globalstateofquality.org.

About ASQ

ASQ is a global community of people dedicated to quality who share the ideas and tools that make our world work better. With millions of individual and organizational members of the community in 150 countries, ASQ has the reputation and reach to bring together the diverse quality champions who are transforming the world's corporations, organizations, and communities to meet tomorrow's critical challenges. ASQ is headquartered in Milwaukee, Wisconsin, with national service centers in China, India, Mexico, and a regional service center in the United Arab Emirates. Learn more about ASQ's members, mission, technologies, and training at asq.org.

About Scott Alexander

Scott Alexander is vice president of integrated sourcing solutions, innovation, and marketing for ROi. Alexander joined ROi in 2015 with more than a decade of healthcare experience, having worked for companies like Medtronic/Covidien, Nasolux, and The Innovation Factory. His career has spanned roles in marketing, sales, strategy, innovation, and venture capital. Alexander is responsible for overseeing ROi's strategic contracting and sourcing arm, which manages 1,000-plus contracts and more than \$1.6 billion in purchasing volume for healthcare systems. Alexander and his team work with channel partners, ROi members, and ROi's other operating units to harvest maximum clinical, operational, and financial value from the supply chain. He also oversees ROi's innovation strategy; his team works on identifying, developing, and commercializing innovative solutions to supply chain-related issues that reduce the total cost of care for health systems. Alexander is the holder of nearly a dozen patent and patent filings. He graduated summa cum laude with honors from the University of Georgia with degrees in marketing and management information systems. He received his MBA, with a concentration in finance, from Wake Forest University.

About APQC

APQC is a member-based nonprofit and one of the leading proponents of benchmarking and best practice business research. Working with more than 500 organizations worldwide in all industries, APQC focuses on providing organizations with the information they need to work smarter, faster, and with confidence. Every day we uncover the processes and practices that push organizations from good to great. Visit us at apqc.org and learn how you can make best practices your practices.

THE ASQ
GLOBAL
STATE OF
QUALITY
RESEARCH

Contact Information for ASQ and APQC:

Laurel Nelson-Rowe, CQIA
Managing Director, ASQ
lnelson-rove@asq.org

Jonathan Kraft
Project Manager, APQC
jkraft@apqc.org



The Global Voice of Quality™

