

Qualityinfo

Volume 19, Issue 21*Fortnightly, Free soft copy***1st February 2018**

Making the Most of Quality Data Problems transformed into Competitive Business Advantage

Plant-floor quality issues tend to focus on a company's technical resources. When products fall out of spec, alarms sound and all hands are immediately on deck to fix things. Despite large technology investments to monitor and adjust production processes, manufacturers are still bedeviled by quality problems. The issue is not a lack of technology. It is a lack of quality intelligence.

When problems occur, manufacturers must obviously fix them. But the typical organization expends much more energy *reacting* to problems rather than preventing them. This is true despite our understanding that, "an ounce of prevention is worth a pound of cure." We know that proactive measures can be immensely profitable, and yet our limited quality resources spend little time identifying strategic imperatives for avoiding problems. Instead, most of their time is spent responding to issues. Today's quality professionals are too preoccupied with just fighting the fires that rage on shop floors.

Quality and the big picture

The most successful, forward-looking and competitive companies I work with focus on proactively preventing problems. How? By taking a holistic view of quality. They regularly step back to summarize and analyze large amounts of quality data. Stepping back gets them away from the fires, and out of the routine of fixing issues.

Imagine aggregating all of your quality data for the last month across all products and production lines. Doing so would allow you to see the nuanced quality differences between regions and plants. It would tell you where systemic issues need to be addressed and help prioritize improvement efforts. In other words, aggregating data allows you to see the big quality picture.

Today's manufacturing plants make a dizzying variety of products. So you may be wondering how wholesale information can be extracted from vastly different parts, material types, and specification limits. To summarize information across different parts, data normalization can be used to allow fair comparisons even between disparate items. Today it is just a mathematical exercise; easy to perform with software, making data unification and summarization a reality.

Stop “storing and ignoring”

When critical features fall out-of-spec, alarms blare and support personnel descend on the shop floor and get the issues fixed. After completing their tasks, they quickly move on to the next daily priority or fire drill. In this case, at least the alarm data were used for solving the problem.

But what happens to data that triggers no alarms? What about data that meets specification limits? Most will say that if data is in-spec, then it is good enough. And that is the problem. When data is considered “good enough” it is just stored in a database, rarely to be seen again. The error here is assuming that since the data didn’t trigger an alarm, it contains no useful information. If data is not reviewed or analyzed, then expect to be blind to the information it contains. The truth is that value exists in any data you collect. Otherwise, it shouldn’t be collected.

When companies ignore in-spec data, they are throwing away enormously useful information. Many companies I have worked with have turned orphaned data into gold by extracting previously unknown information from it. It was unknown simply because they considered the data to be “good enough.” As a result, they were blind to the information the data contained. These experiences have me conclude that the greatest potential for modern quality improvement comes from aggregating and analyzing data that actually falls within specifications.

Seem odd? Not to me. Think of how frequently parts don’t meet specs. It’s rare. That means that very few data values are viewed for problem-solving purposes. And if those few data values receive the lion’s share of attention, what happens to the huge amount of data where no problems exist? They are stored and ignored.

And it’s getting worse. Because modern technologies support automated data collection, far more data is currently being gathered than in years past. This means that the amount of data being ignored is increasing. It’s staggering how much data is available and yet how little of it is ever viewed.

The reality is that companies rarely go back and look at data that is in spec. Yet, there is rich, valuable information hidden in those overlooked records. Imagine being an operations director who oversees 50 plants. If you could roll up all of your critical quality data across those locations, you would immediately have a holistic view of your manufacturing operations. You could identify which regions are the best performers. You could highlight the plants and production lines with the highest quality costs. You could pinpoint where defect levels could be reduced and which plants require attention to minimize the probability of recalls. And your company could become more competitive as a result.

Rather than simply reacting to quality problems, manufacturers need to direct their attention and time to proactively attacking quality. How? By regularly evaluating the massive amount of overlooked data that they already have.

Data aggregation through cloud technology

Traditional on-premises software solutions aren't great for deploying across an enterprise. But cloud-based quality software platforms are. Since cloud-based solutions are securely hosted by vendors who monitor and maintain system infrastructure, the need for on-site IT support is minimized and capital costs are greatly reduced. The nature of cloud-based systems makes large-scale, multi-plant deployments fast, easy, and inexpensive, ensuring benefits are enjoyed sooner rather than later.

Plus, cloud-based systems connect manufacturing sites across the internet, support standardization, and store quality data from multiple plants in a centralized database. Because data is stored in one place, quality professionals, engineers, managers, and others can easily view the big picture of quality. A single data repository is ideal for supporting corporate wide quality strategies and initiatives.

Cloud-based quality systems should use simple web browsers, empowering quality professionals to break through geographical, cultural, and infrastructural barriers to connect facilities around the world—and provide data aggregation capabilities that can unlock critical information for driving quality improvements on a large scale.

The capability is here and the technology is inexpensive. So what keeps quality professionals from enjoying enterprise wide cost and defect reduction? It's those fires you keep fighting every day. Don't just snuff them out—prevent them in the first place and use the time savings to re-imagine how quality can transform your organization's performance.

Readers may please note that D. L. Shah Trust brings out two e-journals on a fortnightly basis. These are mailed to those persons or institutions who are desirous of receiving them: These two e-journals are:

- 1. Safety Info**
- 2. Quality Info**

If you or your friends or colleagues wish to receive these journals, you may send us an e-mail requesting for the same. There is no charge for these journals. Our e-mail address is:

dlshahtrust@yahoo.co.in haritaneja@hotmail.com dlshahtrust@gmail.com

You can also access these journals on our website: www.dlshahtrust.org

<p>Sponsored by: D. L. Shah Trust For Applied Science, Technology, Arts & Philosophy Mumbai. email: dlshahtrust@yahoo.co.in Ph: 022-22838890</p>	<p>Edited by Hari Taneja, Mumbai email: dlshahtrust@yahoo.co.in</p>
--	--