

Why Six Sigma is not TQM

There's a reason TQM's popularity has cooled while Six Sigma's has flourished.

I am often told by my colleagues that there's no real difference between Six Sigma and total quality management (TQM). Indeed, Six Sigma does employ some of the same tried-and-true tools and techniques of TQM. Both Six Sigma and TQM emphasize the importance of top-down support and leadership. Both approaches make it clear that continuous quality improvement is critical to long-term business success. And the plan-do-study-act cycle used in TQM is not fundamentally different than the Six Sigma define-measure-analyze-improve-control cycle.

But there are differences—critical differences. And these differences explain why the popularity of TQM has waned, while Six Sigma's popularity continues to grow.



The primary difference, in a word, is *management*. Unlike TQM, Six

Sigma was not developed by techies who only dabbled in management and therefore produced only broad guidelines for management to follow. Six Sigma was created by some of America's most gifted CEOs, people like Motorola's Bob Galvin, AlliedSignal's Larry Bossidy and GE's Jack Welch. These people had a single goal in mind: making their businesses as successful as possible. Once they were convinced that the tools and techniques of the quality profession could help them do this, they developed a framework to make it happen: Six Sigma.

We quality professionals knew we had a winning set of tools that could solve quality problems in manufacturing. Total quality control, invented in 1950, showed that product quality could be improved by expanding quality efforts into upstream areas such as engineering and purchasing. We even had limited success using our tools to improve quality in administrative areas by reducing errors in service transactions. But, despite these successes, we

suffered from a number of shortcomings, for example:

- We focused on quality and ignored other critical business issues. Quality trumped everything else. Of course, this made no business sense and often led to organizations that failed despite improved quality.

- We created a quality specialty that suffered from all of the same suboptimization problems as other functions within the organization. Despite all of our talk about a systems perspective, when push came to shove, we fought for our point of view (and budget) just like everyone else. In the typical organization, this resulted in other departments considering "quality" the quality department's territory. Thus, they backed off from—or never started—efforts of their own.

- We emphasized minimum acceptance requirements and standards rather than striving for ever-increasing levels of performance.

- We never developed an infrastructure for freeing up resources to improve business processes.

- We developed a quality career path. Quality professionals tended to lack expertise in other areas of the company. This division of labor, combined with functionally specialized organizations, made it difficult to improve quality beyond a certain level. (I estimate that this type of organization tops out at about 3.5 sigma.)

The CEOs were able to see what the problems were and create an approach that fixed them. Six Sigma addresses them all.

- Six Sigma extends the use of the improvement tools to cost, cycle time and other business issues.

- Six Sigma discards the majority of the quality toolkit. It keeps a subset of tools that range from the basic to the advanced. Six Sigma discards esoteric statistical tools and completely ignores such quality "staples" as ISO 9000 and the Malcolm Baldrige National Quality Award criteria. Training focuses on using the tools, not theory, to achieve tangible results.

- Six Sigma integrates the goals of the organization as a whole into the improvement effort. Sure, quality is good, but not independent of other business goals. Six Sigma creates top-level oversight to assure that the interests of the entire organization are considered.

- Six Sigma strives for world-class performance. The Six Sigma standard is 3.4 failures per million opportunities, but it goes beyond errors. The best of the Six Sigma organizations try to meet or exceed their customer's expectations 999,996.4 times out of every million encounters.

- Six Sigma creates an infrastructure of change agents who are not employed in the quality department. These people work full- and part-time on projects in their areas or in other areas. Six Sigma Black Belts don't make careers in Six Sigma. Instead, they focus on Six Sigma for two years and then continue their careers elsewhere. Green Belts work on Six Sigma projects while holding down other jobs. These subject matter experts are provided with training to give the skills they need to improve processes. Six Sigma "belts" are not certified unless they can demonstrate that they have effectively used the approach to benefit customers, shareholders and employees.

There are many other differences as well. Having worked with organizations that have done TQM and Six Sigma well, I can tell you that successful programs of both types look very much alike. But Six Sigma, by clearly defining this "look," makes it easier for organizations to succeed by providing a clear roadmap to success. I'm not saying that succeeding at Six Sigma is easy, but organizations are more willing to invest the effort if they know that a pot of gold awaits them at the end.

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