DITY™ Weekly Newsletter
itSM Solutions®
IT Experience. Practical Solutions
The workable, practical guide to Do IT Yourself Vol. 4.34 • August 26, 2008

From the Ashes of Failed Quality Initiatives

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The gems of IT service quality can be found in the smoldering embers of failed Six Sigma deployments and botched Total Quality Management initiatives.

In an article in Baseline Magazine, Steve Sounders, Yahoo! Inc.'s chief performance yahoo, explains how he spent the bulk of his time working on the wrong 5% of the system. He did a survey of response times to load Yahoo! pages and found "80 to 90 percent of user response time is spent on the front end" not the back-end - where he had spent the previous 4 years optimizing code.

Only with prodding from management did the team examine the entire process, and in so doing discover that the "obvious" things to IT pros were the wrong things with regard to the customer.

He spent 4 years optimizing software that had at best a 5-10% impact on customer experience. What a terrific, typical and terrible example of IT experts who think they know how to improve things. As a side note, Yahoo! lost its luster during this period as well - coincidence or symptomatic? We may never truly know, but it's an interesting observation isn't it?

In Six Sigma terms, what Yahoo! missed was the "Voice Of the Customer" or VOC. What the team did not do was quantify the entire user experience (called process mapping) to discover the "vital few" process contributors critical to quality (CTQ). Finally, there was no evaluation of the cost of poor quality (COPQ) regarding the decisions to optimize server side instead of client side code.

While Six Sigma, LEAN, TQM and other quality frameworks have gotten a bad rap (in many cases for good reasons), discarding some of their basic tenets and tools is like throwing out the baby with the bathwater. Using select Six Sigma, Lean and/or TQM methods and tools in ITSM and ITIL - without implementing the entire program - can deliver exactly what IT has been missing.

It turns out that at least one of the secrets to aligning with the business, controlling costs, improving quality and yes, even competitive advantage may be found in the ashes of these failed quality initiatives. From an ITIL perspective, this is complimentary guidance - something critical to success with ITIL, but something ITIL itself does not cover.

Following, I introduce some key Six Sigma concepts that can really accelerate an ITIL implementation, and help improve the odds of success dramatically. Get to know these tools and your ITSM initiatives will be measurable improved.

Six Sigma 101

Six Sigma is a business-driven approach to improving process, reducing costs, and increasing profits. The basic concept is to improve customer satisfaction by reducing defects in processes and products. From a Six Sigma perspective everything is a process, all processes have inherent variability and data is used to understand this variability and drive process improvement decisions. This is exactly what we need in ITSM since we are working with so many processes.

The goal of Six Sigma is to improve customer satisfaction, assuming that increased customer satisfaction will also drag

along increased profitability. Underlying this goal is the Taguchi Loss Function - which simply states that defective product or service delivery creates unhappy customers that result in financial loss for the enterprise.

The Six Sigma methodology consists of the “Define - Measure - Analyze - Improve - Control” framework. Key to success in Six Sigma is that it defines by default “where to begin” - the fundamental missing step in many ITIL implementations. The first step of Six Sigma is “Define” - in which specific customer satisfaction goals, and base lining and benchmarking objectives are established. It also includes assessment of the changes that might be needed for success.

Six Sigma includes many tools - some of which are known to ITIL students, others may not be so well known. Some of those most useful to IT service management practitioners include VOC, SIPOC, CTQ, COPQ and CONC.

VOC (Voice of the Customer)

To succeed we must gauge what our customers really need and want. One tool for doing this is called the Voice Of the Customer or (VOC). As an improvement process, VOC captures the requirements/feedback from the customer (internal or external) to provide them with best-in-class service/product quality. This process is all about responsiveness and constantly innovating to capture the changing requirements of the customers over time.

As a term, VOC describes the stated and unstated needs or requirements of the customer. The "Voice of the Customer" can be captured in a variety of ways: Direct discussion or interviews, surveys, focus groups, customer specifications, observation, warranty data, field reports, complaint logs, etc. This data is used to identify the quality attributes needed for a supplied component or material to incorporate in the process or product. The VOC is critical for an organization to:

- Decide what products and services to offer
- Identify critical features and specifications for those products and services
- Decide where to focus improvement efforts
- Obtain a baseline measure of customer satisfaction against which improvement will be measured
- Identify key drivers of customer satisfaction

The following is a list of typical outputs of the VOC process:

1. A list of customers and customer segments
2. Identification of relevant reactive and proactive sources of data
3. Verbal or numerical data that identify customer needs
4. Defined Critical-To-Quality requirements (CTQs)
5. Specifications for each CTQ requirement

SIPIOC (Suppliers, Inputs, Process, Output and Customers)

In Six Sigma, quality is judged based on the output of a process. Inputs come from suppliers, value is added by the activities of the process, and the output is of value to the customer. A Six Sigma project team needs a way of analyzing process inputs and process variables, and requires a high-level “as is” process map to begin. Creating a SIPOC diagram quickly and easily captures the current "as is" state of a process.

SIPOC is a structured tool to help you document processes and ensures you capture all the information you need.

CTQ (Critical to Quality)

The purpose of Critical-To-Quality (CTQ) trees is to convert customer needs and wants into measurable requirements for the business to implement. CTQ’s represent the product or service characteristics that are defined by an internal or external customer. A CTQ must be translated from a qualitative customer statement into a quantitative business specification. The customer often expresses this in plain speech, but it is up to the Six Sigma team to convert them to measurable terms.

CTQ’s are the key measurable characteristics of a product or process whose performance standards or specification limits must be met in order to satisfy the customer. They align improvement or design efforts with customer requirements.

COPQ (Cost of Poor Quality)

COPQ consists of those costs that result from defective production. It includes the cost involved of bridging the gap between the desired and actual quality as well as the cost of lost opportunities. These costs include labor, rework, and other costs. Six Sigma is essentially a methodology to reduce process variability.

Another way to think about variability is non-conformance. Non-conformance is the shift of a characteristic from its intended value. Non-conformance leads to products and services not meeting established requirements. We normally call these episodes of non-conformance defects or problems. Variability due to non-conformance results in increased costs. The term Cost of Non-Conformance (CONC) refers to the value at risk due to non-conformance.

COPQ and CONC are direct business measures of the "cost of doing nothing" that often justify the reasons for "doing something" like ITIL. Justification of IT spending is getting more difficult and COPQ and CONC can be very useful tools for project identification and justification.

Summary

Six Sigma is a collection of dozens of tools - some simple and easy to use, other less so. However, Six Sigma is not a monolithic framework that should be approached with trepidation. Many of the tools in Six Sigma are directly applicable to ITIL and ITSM. Using these tools can cross the chasm from description to prescription, and make "doing ITIL" much easier.

Take a moment to examine these (and other) Six Sigma tools, and you will find a wealth of use for them in your ITIL endeavors.