Understanding Six Sigma

Over the years there have been a number of operational quality management programs that promised to resolve some of the more pressing issues facing companies in a highly competitive, global economy. Some of them, like Total Quality Management (TQM), while helpful on some levels, have failed to live up to the hype that surrounded them. The latest methodology to gain some high profile adherents is called Six Sigma. This article will share some of the fundamentals of this engaging approach to business.

Tudog has yet to formulate an opinion about the worthiness of Six Sigma as a management philosophy. The approach has received endorsements of sorts from Jack Welch and other executives of large corporations. While this is impressive, most management movements have their set of believers. This does not detract from the prestige afforded the method by these adherents. It only means that the role Six Sigma played in assisting Jack Welch grow GE is undefined. As such, we leave the application of Six Sigma is left up to each CEO reading this article. We are not recommending it. We are merely presenting it because we see our role as presenting the options as we come to understand them.

The Strategy of Six Sigma

Six Sigma maintains that it has distinguished itself from other quality management methodologies in that it establishes a strategy prior to the implementation of quality tactics. The claim is that prior methods sought to draw the company directly into action by establishing procedures that would initiate and maintain certain efficiencies or enhancements. Six Sigma believes that these attempts were hindered by the failure to first establish a strategic foundation upon which the tactics could be implemented.

Another critical distinction is that Six Sigma begins with altering the way management approaches business, whereas other systems focused primarily on lower levels of management and general employees. While they sought to increase productivity and reduce waste, Six Sigma attempts to create a new business outlook within the entire organization. This outlook generally seeks to move the company away from a functional approach whereby it focuses on completing the tasks required of it as a function of its business, and into a state where it can focus on three critical elements; (1) customers, (2) processes, and (3) employees.

The creation of a Six Sigma strategy calls upon management to identify the key processes of their company, create the means of measuring their effectiveness, and place into action efforts to improve those which are not performing as well as they need to be. These low performing, highly important processes that are in fact the primary focus of Six Sigma.

Once management identifies their key processes they must assign ownership of the process to a manager or non-manager who will then take responsibility for the maximum efficiency of the process. The selection of a process owner is based on expertise in the area of operations, a stake in improvement (and a consequence in deterioration), leadership capabilities, and a strong understanding of the company's business thinking. It is the process owner's responsibility to obtain the performance objectives designated for their process.

Creating a Charter

Six Sigma has what it terms the creation of a charter as a core motivational element. The charter is a collection of documents that provide purpose to the Six Sigma team and it is comprised of a number of critical elements. They are:

- The Business Case – a sentence or two stating the reason why the project should be implemented.
- The Problem Statement – a short statement about the problem, how long it has existed, and the gap between the current and the desired states of performance.
- The Project Scope – a statement on what the team will be focusing on, as well as on what the team will be not be addressing.
- Goals & Objectives – a listing of what the team will attempt to achieve during the 4-6 month period Six Sigma allots it to exist.
- Milestones – a method of measurement by which the team states prior to initiation of the program where it expects to be in the process at specific times.
- Roles & Responsibilities – Six Sigma assigns roles to various team players. There is the project owner (also called the Champion) who guides the team strategically but is often not a full time member. There is the team leader (also called the Black Belt) who is responsible for the day-to-day activities of the team.

Six Sigma Tactics

Six Sigma places significant importance on demonstrating success with the initial projects selected by management to be transformed by the Six Sigma approach. For this reason, and because they are in most need, the system targets the weakest performing critical processes in the company. By doing so, the effectiveness of Six Sigma is visible at all levels of the organization, making adherence easier to secure as broader implementation gets executed throughout the organization.

The objective of Six Sigma is the enhancement of effectiveness and efficiency as a cure for the normally hectic, under pressure work environment. The end result should be an improvement in the processes people work with. There are five steps to tactical Six Sigma. They are:

1. Define

The define step is when the project team is formed, a charter is created, customer needs are determined (and verified), and a senior level map of the existing process is established. The 3 “tollgates” for Define are; (1) Charter, (2) Customers, their needs and requirements, and (3) High Level Process Map

2. Measure

This step is where the current performance standard is calculated at a higher intensity than it was when the strategy was being formulated. The 2 measure “tollgates” are; (1) Creation of the Data Collection Plan, and (2) Implementation of the Data Collection Plan.

3. Analysis

The analysis step calls on the team to exam the data and the process with the goal of coming to an understanding regarding the core reasons for the poor performance of the process. The analysis step has 3 “tollgates”; (1) Data Analysis, (2) Process Analysis, and (3) Root Cause Analysis.

4. Improve

This step is where the team creates and chooses a set of solutions it determines will improve the process performance. There are 2 “tollgates” for the improve step; (1) Generating Solutions, and (2) Selecting Solutions.

5. Control

Control is the final step of the Six Sigma tactical steps and it calls for the application of the techniques that will enable the new, improved process to maintain a high level of operation over time. Control has 2 “tollgates”; (1) Determining the Technical Method of Control, and (2) Creating the Response Plan.

Six Sigma is a defined set of procedures and practices a company can execute in order to improve ailing processes and enhance operations. Tudog suspects the extent of its effectiveness will be based both on the expertise with which it is executed and the specific circumstances of the challenges a company’s processes possess. What seems certain is that in some situations implementing Six Sigma leads to improved performance, which Tudog believes we should all be striving for…always.