

Six Sigma: The Steps to Success in Business

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Six Sigma has been around for a long time, but the successes of this process improvement methodology are now being noticed. Six Sigma methodologies represent a business philosophy that embraces continuous improvement to achieve the best products, services and customer satisfaction possible.

A sigma value is a metric that represents how well a process is performing and how often a defect is likely to occur. The higher the sigma value, the less variation and fewer defects the process will have. Six Sigma is the new standard of excellence at only 3.4 defects per million opportunities.

The methodology is easier to understand when broken down. Everything that we do, at work or at play, is a process with a start, a stop, inputs in from suppliers and outputs out to customers. Manufacturers use processes to add value to products, and service industries use processes to deliver value-added services. In all of these processes there are entities being changed.

Measurements can be of input characteristics such as number, size, weight or type. They can also be of output characteristics, and of process characteristics at various stages such as number count and time taken. Measurements can be of continuous data items such as time, money, size, or they can be of discrete data items such as integer counts or rank orders. The process itself will have requirements for the inputs, and the customers will have requirements of the outputs. Measuring intangibles such as satisfaction may be done through survey research.

When the data is arranged, you can see the distribution. Normal distribution is a bell-shaped curve and the mean or average is taken from the center point in the curve. The 'fatness' (variation) of the curve is measured by the standard deviation, the distance between the mean and the point either side where the curve changes from convex to concave. This distance is also known as the sigma.

Customers of any process have expectations about what they should receive. Determining their expectations and measuring them against the output is Six Sigma. Six Sigma stands for a measure of customer quality - and it stands for a philosophy of giving customers what they want each and every time (zero defects, or as close as you can get). It also stands for a methodology that can be used to change processes and company culture to enable companies to deliver Six Sigma quality.

Six Sigma quality methodologies uses the very best practices from existing total quality management together with statistical process control and measurement, and strong customer focus, and therefore impacts on three key areas: the process, the employee and the customer. Successful implementation requires strategy management and cultural change across the entire company. This is not something that can be taken lightly or achieved in a day.

In the late 1990s, AIG, a global insurance and financial services company, received terrible marks on customer surveys. AIG validated the surveys several times and decided they had a problem. Customers were not satisfied. The process was reviewed, revised, and metrics and checkpoints were put in place to improve policy output. AIG went from sending nearly every policy out the door wrong and late to a 1 percent error rate and 90 percent on time. Happy customers renewed policies and considered other new business with AIG.

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