
Six Sigma Reduce Process Variation



- › Six Sigma improves operational efficiency, raises productivity and lowers costs.
- › Done right it can be an incredibly energising and rewarding.
- › Six Sigma is a quality program that, when all is said and done, improves your customers' experience, lowers your costs, and builds better leaders
- › Six Sigma seeks to reduce process variation and provide the customer with consistency.
- › Over the course of three deliveries a company delivers parts on day 5, 10 and 15. Over the next three deliveries parts arrive on day 2, 7 and 12; seemingly an improvement. But really, the customer has experience nothing but inconsistency.
- › Six Sigma seeks to provide reliable processes giving the customer what they want, when they want it.

Six Sigma – 'Reduce Process Variation'

Nothing compares to the effectiveness of Six Sigma when it comes to improving a company's operational efficiency, raising its productivity, and lowering its costs. It improves design processes, gets products to market faster with fewer defects, and builds customer loyalty. Perhaps the biggest but most unheralded benefit of Six Sigma is its capacity to develop a cadre of great leaders.

Simply put, Six Sigma is one of the great management innovations of the past quarter century and an extremely powerful way to boost a company's competitiveness. These days, with Six Sigma being increasingly adopted by companies around the world, you can't afford not to understand it, let alone not practice it. And yet, Six Sigma causes enormous anxiety and confusion.

For many people, the concept of Six Sigma feels like a trip to a dentist. But Six Sigma couldn't be less like a root canal or any other awful procedure. Done right, it is energizing and incredibly rewarding. It can even be fun. You just have to understand what Six Sigma really is.

There is nothing technical in what I am about to say. If you want to learn about the statistical premise behind the concept, or learn what it takes to become qualified in Six Sigma, an industry of books, videos, and training programs eagerly awaits you.

But for our purposes, I'm going to be very simple about what Six Sigma means and what it does. I call this "Six Sigma for Citizens", meaning those people - like myself - who'd like to hear the "elevator speech" version of what Six Sigma is all about and why it matters so darn much. This explanation is not meant to satisfy scientists and engineers, who actually *do* need to know about the statistical basis of Six Sigma in order to incorporate it into the design of experiments and complex equipment.

Here goes: Six Sigma is a quality program that, when all is said and done, improves your customers' experience, lowers your costs, and builds better leaders.

Six Sigma accomplishes that by reducing waste and inefficiency and by designing a company's products and internal processes so that customers get what they want, when they want it, and when you promised it. Obviously, you want to make your customers more satisfied than your competitors do, whether you run Upper Crust Pizza or manufacture the most powerful jet engines. A huge part of making your customers 'sticky' is meeting or exceeding their expectations which is exactly what Six Sigma helps you do.

One thing that is sure to kill stickiness is inconsistency in services or products. Consider this hypothetical scenario. You make spare parts and promise ten-day delivery. Over the course of three deliveries, your customers receive their parts on day five, day ten, and day fifteen. On average, ten-day delivery. Over the course of the next three deliveries, they receive their parts on day two, day seven, and day twelve. An average of seven days, a seemingly big improvement in the customer experience. But not really - you customer has experienced nothing but inconsistency!



- **Unpick the entire Supply Chain, eradicate anything that causes waste and inefficiencies.**

With Six Sigma, your customers would receive all three of their deliveries on day ten, or in the worst case, on day nine, day ten, and day eleven. Six Sigma, in other words, is not about *averages*. It's about *variation* and removing it from your customer's interface with you.

To remove variation, Six Sigma requires companies to unpick their entire supply and distribution chains and the design of their products. The objective is to wash out anything that might cause waste, inefficiency, or a customer to get annoyed with your unpredictability.

So, that's Six Sigma - the elimination of unpleasant surprises and broken promises.

Simple, Complex or Not at All

From 20,000 feet, Six Sigma has two primary applications. First, it can be used to remove the variation in routine, relatively simple, repetitive tasks - activities that happen over and over again. And second, it can be used to make sure large, complex projects go right the first time.

Examples of the first kind of application are a multitude. Call centres from South Dakota to Delhi use Six Sigma to make sure the phone is answered after the same number of rings for each incoming inquiry. Credit card processing facilities use it to make sure people receive accurate bills on the same day every month.

The second application of Six Sigma is the territory of engineers and scientists involved in multipart endeavours that sometimes take years to complete. If you're spending hundreds of millions of dollars on a new jet engine or a gas turbine, you cannot afford to figure out process or design inconsistencies late in the game. Six Sigma is incredibly effective in discovering them on the drawing board, i.e., the computer screen.

Obviously, the amount of Six Sigma training and education required depends on where and how you intend to apply it.

For the first application - simple, repetitive activities - the level of training and education is certainly manageable. In order to discover the root causes of inconsistencies, people need to know what kind of information to gather and how to analyse it. The rigor of this type of training has a terrific side effect. It builds critical thinking and discipline. That's one reason why we noticed that every time a business dove into Six Sigma, not only did its financial performance improve, so did its management ranks. They all became better leaders.

Make no mistake: Six Sigma is not for every corner of a company. Jamming it into creative activities, such as writing advertising copy, new marketing initiatives, or one-off transactions like investment banking, makes little sense and causes a lot of wheel-spinning. Six Sigma is meant for and has its most meaningful impact on repetitive internal processes and complex new product designs.

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So Why the Panic?

At this point, you might be wondering: if Six Sigma is so straightforward, why does it cause so much anxiety and confusion? Probably because of the way it is initially presented to people. In many cases, senior management hires outside experts, scientists, statisticians, engineers, or Six Sigma consultants - to preach the new gospel. These experts, well intentioned though they are, proceed to freak everyone out with complex Power-Point slides that only an MIT professor could love. To make matters worse, they often present Six Sigma as a cure all for every nook and cranny of a company. No activity is spared.

In time, most people come to understand Six Sigma and where to use it and not use it in an organization. Most of all, they also come to appreciate its competitive power after they've seen it in action for a few months. At which point, they usually become Six Sigma missionaries themselves. So next time you hear Six Sigma mentioned, don't run for cover. Once you understand the simple maxim "variation is evil," you're 60 percent of the way to becoming a Six Sigma expert yourself. The other 40 percent is getting the evil out.

