Six Sigma and the Implications for BP Improvement

A Postcard From Europe
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For this month's postcard, I thought it might be interesting to share some thoughts and provide a heads up on the subject of Six Sigma. Originating at companies like General Electric and Motorola, Six Sigma can best be summed up as an approach that helps you try and achieve perfection. Traditionally, Six Sigma has been viewed as a statistical approach to quality suitable only for manufacturing, but things are changing.

In Europe at least, the biggest interest in Six Sigma comes from companies in the financial sector. Most major European banks are now looking at ways of applying the techniques to their everyday work. One can only assume that this is driven by a combination of the fact that these institutions badly need to make changes to keep pace with an ever changing world and the fact that, given the numbers they are dealing with, even a small change well thought out can save them millions of dollars.

There can be no getting away from the fact that Six Sigma is fundamentally a statistically based approach for improving processes. A simple explanation would be that point X is perfection and Six Sigma is all about measuring the number of standard deviations from the point, standard deviation being represented in mathematics by the Greek letter "sigma". The less the deviation the higher the Sigma score and the higher the resulting level of quality of a given process, Six Sigma representing close to perfection with only 34 defects per million operations.

Maths does form a major part of the work, but there is much more to it than just the maths. In order to perform any statistical analysis one first has to create measures. In many traditional process-based approaches, much of the information used by managers is subjective. Well in Six Sigma life is different! It's common to hear Six Sigma practitioners say that "If you can't measure it, you can't manage it, and if you can't manage it, you should not be doing it." This is the first good thing about Six Sigma, it suggests ways to help you create measures for activities that might have seemed un-measurable in the past.

Secondly, Six Sigma promotes a structured approach to optimizing processes. They use what they call the DMAIC approach – Define, Measure, Analyze, Improve, Control. Each of the phases is well defined and there is a lot of emphasis placed on the "Control" phase. The control phase is all about monitoring the changes made to ensure that you hold onto the gains made.

Thirdly, Six Sigma is all about getting everyone involved. A Six Sigma team is not some kind of elitist team rearranging the world for everyone else to live in. In a pure Six Sigma company you have the "Process

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Improvement Experts" who work on many projects and have lots of experience; these are known as Master Black Belts and are full time people dedicated to Six Sigma in the company. They also act as the mentors and coaches for the Black Belts. Black Belts are also experienced people who have proven experience in delivering bottom line improvements within their company, however most Black Belts do not work full time on Six Sigma projects. The Black Belts work with the leaders of teams working on many different projects. Most of the team leaders are Green Belts and most have had some training and work occasionally on process improvement projects. So you can see that there are many people involved, but in fact there are many others because the project teams are drawn from the people working on the specific process being improved. The team members participate to ensure that any changes will work and that the changes will be acceptable to the other users.

Any company undertaking a full scale Six Sigma is embarking on a massive program of cultural change. Most will have developed a performance and bonus system for managers that could mean up to 40% of their salary is linked to meeting their Six Sigma targets (This is probably the major reason for the success in companies like GE and Motorola). Then, an extensive training program the company is necessary to assure that the company has the hundreds of "Green Belts," possibly a hundred or more "Black Belts," and probably 2 or 3 "Master Black Belts" it will need to manage the effort. All of these people must be trained in process analysis, process improvement, and general process "thinking."

So where does Six Sigma fit in with Business Process Improvement? Well if we assume that the purpose of and BPA exercise is to ultimately reduce cost, then improving quality can certainly help. My personal view is that pure Six Sigma companies do not actually operate that efficiently. Certainly they have large numbers of highly optimized processes all contributing some business benefit, but they often fail to understand the big picture. Many Six Sigma consultants preach that you only need to focus on the lower level process that you are looking to improve; there does not seem to be a reliable Six Sigma mechanism to help companies figure out how all the processes fit together to make the company efficient. I believe companies achieve more with a blend of techniques.

By utilizing normal BP techniques you can identify the value chains within your organization and the relevant support processes. Then by drilling down you can look at the overall business processes that are important (and that might be failing). Then as you continue to drill down you might identify processes that are redundant or others that need optimizing. It is when you find those processes that would benefit from optimizing

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that you can start to apply Six Sigma techniques to optimize them. There is no point in working hard to optimize processes that are redundant when viewed from a slightly higher level.

You can also apply Six Sigma techniques to accrue the measure for even your high level processes and this may be especially important if you are planning to move toward Business Activity Monitoring and want to monitor, in real time, how the processes within your organization are functioning.

Of course the best thing about Six Sigma in my opinion is that it means that we are now "breeding" literally thousands of process modelers, which can only be good news for both the industry and for user companies.

I predict that we will see at least some Six Sigma functionality creeping in to all of the major BP modelling toolsets in 2003. By 2004 I predict that at least one or two will significantly enhance their offerings to enable the captured data on any given measure to be stored in their repository, enabling users to work with, report on, and analyze all the data they need in one place.

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