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Delivering Speed with Accuracy in e- Age with Six Sigma

by Sunil Thawani

Business Needs for 21st Century

The six Cs' – change, complexity, customer demands, competitive pressure, cost impact and constraints characterize today's business needs. All of these factors have great impact on organization's ability to meet its business goals and objectives.

To satisfy customers and make profits, organisations are focusing to improve quality, productivity, reduce cost and speed up product development cycle times. Organisations have tried and tested variety of tools like Business Process Reengineering, Policy Deployment, ERP packages, Gemba Kaizen, ISO: 9000, QC tools and lately Six Sigma in their effort to achieve these business needs.

Are the business needs of 20th century same as of 21st century? Certainly no. Today's business environment expects speed, flexibility, adaptability, accuracy, Easy to Do Business With (ETDBW), with product and service performance as a minimum requirement. To meet these "new " set of business needs, organisations need to deploy different tools, which can enable them to remain competitive and grow in increasing e - age.

Six Sigma Wave

Six Sigma, " born " at Motorola in 1980s, is one of the tools organisations have started using to achieve accuracy and speed and at the same time reducing cost and increasing customer satisfaction. Six sigma means 3.4 defects per million opportunities. Average organisations operate at 3 sigma level i.e. 2700 defects per million opportunities. Airline flights operate at 8 sigma level i.e. 0.43 defects per million opportunities.

Six Sigma methodology has been around for more than 15 years now. As is with every new technique there are proponents and opponents. Six Sigma was no different. The opponents labeled it " old wine in new bottle " since most of the tools "packaged " in it have been around for several decades. So many companies were waiting, watching and evaluating its successes before joining the bandwagon. With Mr. Jack Welch, ex Chairman of Generic Electric successfully leading and deploying it in many of its operations worldwide and reporting extraordinary gains, it caught the attention of many CEOs. The American companies started adopting it like Allied Signal, Gillette, Johnson Control, Johnson & Johnson, Bombardier, Sony, Eastman Kodak, ABB,

Lockheed Martin, Raytheon etc. Subsequently six sigma wave moved on to Europe and is gradually catching up in sub continent countries like India. It has started to create ripples in Middle East.

What Makes Six Sigma Different?

Even though six sigma has been around for more than 15 years now, what is it that drives its growth? Based on my readings, research and listening to experts, in my opinion, following factors makes it different and contribute to its increasing popularity:

1. **Versatility** – Can be deployed strategically to change the culture of organisation like GE or tactically enhancing performance. It can be successfully applied in manufacturing and non-manufacturing businesses.

2. **Breakthrough improvements** – average savings of US $ 125000 per six sigma improvement project have been reported with radical improvement in cost, speed, defects, customer satisfaction etc.

3. **Financial results focus** – Benefits are quantified and certified by Finance.

4. **Structured problem solving methodology** – Problem solving process i.e. DMAIC - Define, Measure, Analyse, Improve and Control – is well structured, standardized and must be followed.

5. **Customer centered –** Improvement projects are linked to customer needs by identifying critical to quality characteristics from the customers' point of view.

6. **Making involvement of leadership imperative –** Demands extensive and demanding involvement of top leadership beginning with 2 day training for top management.

7. **Creating organisation for problem solving** – Clearly defined roles, responsibilities and structure for Project champions, Black belts and Green belts is created for six sigma projects.

8. **Involvement of people** – Extensive use of teams and involvement of relevant people.

9. **Mandatory training –** Attending training is mandatory. Course is quite rigorous with stringent evaluation.

10. **Action learning** – Theoretical training is supplemented with actual problem solving for effective learning at the same time bringing benefit to the organisation.

11. **Use of scientific tools and techniques –** Tool kit includes many data based techniques like Pareto chart, Design of Experiments, Failure Mode Effect Analysis, Process control, Lean manufacturing etc.

12. **Dedicated teams** – Full time deployment of the brightest and the best resources.

Conclusion

Following quote by Mr. Nelson Jackson is quite apt:

" I do not believe you can do today's job with yesterday's methods and be in business tomorrow "

Six sigma provides the desired speed, accuracy and agility to organisation to be in the digital age of tomorrow.

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