

The Rise & Fall of “Six Sigma”

by Chua Kwan Teng

Introduction

To begin with Sigma stands for standard deviation. It is a statistical way to describe how much variation exists in a set of data, a group of items, or a process. When an organization reaches a 6 sigma” level, it would be portrayed as being able to deliver close to zero defect products. The goal of Six Sigma as a process and business improvement methodology is to help organizations to deliver defect-free products and services to their customers.

By definition, Six Sigma is a business process using a data driven approach to enable organizations to drastically improve their bottom line, by designing and monitoring everyday business activities in ways that minimize waste and resources while increasing customer satisfaction.

The rise of six sigma

When the six sigma methodology was introduced years ago, it was touted as an ultimate cure for all organizational quality ills. There was no lack of claims from organizations and consultants alike that through this initiative, they are able to achieve tremendous savings and realize significant product defect reduction. It was the magic pill organizations were seeking. This period of hype was further driven and sustained by a period where multiple seminars were organized with presenters outlining colourful and impressive powerpoint slides showing radical process improvement and cost savings achievements through the implementation of the six sigma methodology. These case studies served to further prove time and again justifying, that six-sigma was the way to go. A whole range of large and single individual consulting companies sprang up offering organizations six sigma training and coaching support.

The fall of six sigma

What happen next? More and more organizations jumped onto the band wagon of six sigma with top management demanding significant costs savings (Often running into the millions) from six sigma project leaders, commonly

referred to as the Black Belts and Master Black Belts. These gifted individuals commanded a premium compensation rate in the market. When quantity gives way to quality what happens is there is a lot of activity but not real value and results. As time passed many organizations that included six sigma as strategic initiatives in their annual reports and management reviews found that there was a lot of activity but real business results were questionable given all the smoke thrown around about hard and soft savings. It is not a sweet ending for many. After all the investment put in to employ consultants, train staff, design recognition and incentive programs, purchase software to track projects and employ black belts, not only did many not achieve the financial returns promised or expected, their products and process quality did not show much improvements especially compared to the levels that the pioneers of the system advocated.

What happens when initially aggressive targets for six sigma were not achieved? Change the target! Many organizations change their original targets of zero-defect to more vague ones like: Achieve six sigma breakthrough or improved process performance and strong cost savings.

Why did Six-Sigma fail us?

The failure of six sigma may be linked to the following five primary reasons:

1. Six Sigma requires a systems approach, very different from many and previous initiatives and programme such as TQM and QCC. As a systems approach all levels of management must play specific roles from the initiation of projects to their accomplishments and implementation. Organizations fail to realize this and depend on a few Black belts and Master black belts to bear the full responsibility, making it more a functional priority and not a total business priority.
2. Six Sigma requires a discipline and structured methodology such as DMAIC (Define, Measure, Analyze, Improve and Control) using various statistical tools to drive process improvements and solving difficult problems seeking to link the voice of customer (VOC) to the business.

Many projects either made use of very few simple non-statistical tools not suited for the nature of the project /problem

3. Various statistical and non-statistical tools have been designed or invented for certain purposes or for a specific uses. Many six sigma projects completed under close scrutiny indicate that inappropriate tools were selected and applied.
4. Due to an obsession with financial deliverables such as ROI (Return On Investment) Six Sigma projects focus on ‘How much the savings should be’ at the onslaught rather than getting the process and linkages between the business and customer right. Black Belts were more interested to ensure that their project would meet their financial targets in order to keep their jobs rather than using the tool to improve process that helped the company improve customer satisfaction and its competitiveness in the market
5. Many organizations embarked on six sigma without truly committing to it. Most will be quick to tell you that it was their customer’s that required them to embrace Six Sigma to “look good”. Over time organizations in this category found that the resources allocated to this window-dressing project added more cost which invariably affected their EP (Economic Profit) performance level.

As a result of these problems and many more the pain of six sigma was more that organizations were willing to bear and decided to dump it or let it fade into oblivion, not to be mentioned and ultimately forgotten. However those companies that practice six-sigma in its true sense continue to use it as a core approach and methodology to drive continuous improvements and build robust processes that remain a source for competitive advantage.

Conclusion

In this short article the basic concept of six sigma was explained. Its widespread adoption as a strategic initiative, how it rose to fame and eventually suffered was described. Many of reasons described for its decline may not be new to reader or to many organizations, but six sigma is no different from many prior initiative such as business process re-engineering

(BPR), TQM and QCC have experienced similar demise. New initiatives will continue to emerge, thus the next time if you are in a position of authority before your organization decides to embrace a new approach ensure that the team consider the culture and management actions required to effectively implement and sustain it in order to reap its full rewards. Focus on the process and not the product is what should be kept in mind.

About the Author:

Mr Chua Kwan Teng is an experience trainer and consultant, having successfully championed numerous business improvement initiatives using the Six Sigma and Lean Six Sigma approach. He is a seasoned practitioner of statistical tools such as SPC (Basic and Advanced Statistical Process Control), MSA (Measurement System Analysis), FMEA (Failure Mode and Effect Analysis), Design of Experiments and etc. and lean tools(SMED, Value Stream Map, Poka Yoke, etc), he has helped numerous organizations to improve their processes and achieve desired results. As of to-date, he has trained more than 3,000 engineers and managerial level professionals across various industries and coached more than 90 Six Sigma Black Belt projects.