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Using Lean Six Sigma to drive business results to achieve high performance

By Richard J. Hall

In a market characterized by a dramatic shift from goods to services, staying in business and, more importantly achieving high performance is challenging. That is, unless you are one of those smart companies that focus its scarce resources on eliminating process variation and reducing cycle time to increase productivity—much the way leading manufacturing companies have done over several decades.

Companies are facing rapidly changing customer expectations, escalating costs and emerging new markets, which are all impacting process efficiency. Most often, the processes designed to deliver services operate far less efficiently than those used to produce goods. In working with thousands of service-oriented organizations across more than 20 different industries, Accenture has seen tremendous value when a Lean Six Sigma program is aligned to the appropriate industry model.

To understand Lean Six Sigma you need to start with its roots: Six Sigma and Lean Manufacturing. Six Sigma uses data to drive a disciplined

approach, proven to eliminate defects directly linked to bottom line results. Lean Manufacturing utilizes simple tools and techniques to eliminate non-value added steps and accelerate cycle time. The most successful organizations have combined both philosophies into "Lean Six Sigma", a powerful force in eliminating waste worth billions of dollars. Lean Six Sigma uses a set of tools, disciplines and beliefs which operate among a robust framework based in other industry models.

With profitability on the line, many organizations are seeking to adopt Lean Six Sigma practices which have led to a complete revitalization of pioneering organizations such as General Electric, Motorola, Allied Signal and Sun Microsystems. Organizations may start by establishing a fundamental set of disciplined processes based on industry standards, such as IT Infrastructure Library (ITIL®), the eSourcing Capability Model for Service Providers (eSCM-SP) or Clients (eSCM-CL), the Capability Maturity Model Integration (CMMI®), or ISO® 9000. Once an underlying framework is established, organizations can begin

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eliminating waste from the process. Initially, a Lean Assessment will determine if a process should be improved via DMAIC (D-efine, M-easure, A-nalyze, I-mprove, C-ontrol), Lean or a combination of both. If the process capability is poor, DMAIC, a method for improving on a known defect, may be used to find the root cause and shift mean performance. If the process capability is relatively strong, Value Stream Mapping and other Lean techniques can be utilized to quickly stretch the process, eliminating non-value steps and accelerating cycle time. Often a combination of both is used to achieve rapid and cost efficient improvement.

A successful Lean Six Sigma program will include many components. Of central importance are the roles of Master Black Belt, Black Belt, and Green Belt. While Master Black Belts typically coach projects, Black Belts and Green Belts will lead projects ranging from Kaizen workshops to extended DMAIC projects intended to deliver \$250K in value and Design for Six Sigma (DFSS) projects intended to develop new solutions aligned to Critical Customer Requirements.

Other key factors for success include:

- Organizational elements such as champions and sponsors.
- Career and development incentives.
- Advanced statistical analysis capabilities, tools and mindset.
- Infusion of behavior into every employee's job responsibilities.
- Project identification channels.
- Structured gate/review process.

Lean Six Sigma pitfalls

Organizations will often have trouble achieving and subsequently sustaining significant benefits if they fail to address common pitfalls.

Project alignment

When launching a Lean Six Sigma project, organizations must address problems based on facts (not emotions) which are aligned to business objectives. Prioritization of projects should factor both alignment and the magnitude of the opportunity.

Poorly chartered projects

As part of their Lean Six Sigma programs, organizations often develop career progression requirements based upon Lean Six Sigma engagement. This leads to individuals pursuing projects as a means to gain experience without ensuring that the project is correctly aligned to business objectives with appropriate sponsorship.

Excessive analysis

Decisions can often be made with only 80% of the data well understood. Pushing for more data than necessary can lead to schedule extensions and cost overruns, potentially causing the project to fail. Lean Assessments can help to avoid this by highlighting quick win opportunities.

Inflexibility of the Lean Six Sigma program

A proper balance of rigor and speed must be achieved so that value can be realized quickly.

Belts leading projects without project management skills

Many Lean Six Sigma projects fail because of poor project management skills. Programs must infuse project management skills into training programs.

Lean Six Sigma can provide a valuable set of tools and help to establish a culture of disciplined data-driven decision making. However, many organizations see their programs grind to a halt as projects are generated for training purposes, analysis leads to paralysis, and poorly trained belts are ineffective. With proper alignment, well trained belts with a bias toward speed and flexibility, Six Sigma can unleash tremendous value as organizations pursue high performance.

About the author

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