Steps for Lean Six Sigma Success

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Organizations are successful if they incorporate structured steps for implementing Lean Six Sigma so that the enterprise as a whole benefits; however, this does not often occur. There is often contention between lean and Six Sigma practitioners and management over which is the best methodology, lean or Six Sigma, as highlighted in the following referenced *Quality Magazine* article.

### 1.1 *Quality Magazine* article: "Take these Steps to Six Sigma Success"

The following statements were made in the *Quality Magazine* article “*Take these Steps to Six Sigma Success*”.

1. "Lean is a management philosophy that involves everyone in the organization."
2. "I view Six Sigma as a typical business approach that is short-sighted and rests on short-term gains while lean is focused on the long-term and utilizes the expertise within everyone in your organization."
3. "Companies fail when they don’t get that employee ownership in that process to make changes."
4. "What we see a lot of times, is companies find a root cause with Six Sigma, know what needs to be changed, and use lean tools fix it."
5. "For those companies implementing Six Sigma, lean, or both, he suggests talking to other companies using the disciplines they are interested in."

There are some fundamental issues with the traditional deployment of both lean and Six Sigma. In both cases there tends to be a hunt-for-improvement-projects mentality, whether it is the execution of a lean kaizen event or Six Sigma project. Using a lean term, this could be viewed as a “push” for project creation. A traditional approach for selecting improvement projects often does not benefit the enterprise as a whole.

To illustrate this point, several years ago I made a presentation at major defense contractor’s internal conference, where the General Manager made a statement that the company had made a lot of gain through their lean efforts. On a tour of their facility, my observation was that the organization had done a great job reducing waste through their lean efforts; however, their equipment was idle.

I then complemented the tour guide about their lean undertaking with an added comment about their idle equipment. The tour guide then stated production demand has been slow. I then asked what improvement projects were they doing in their sales and marketing processes, the obvious constraint for the organization to continue staying in business and maintaining profitability? I got a blank stare from the tour guide – they were not doing anything to improve the sales and marketing process!

Why was their improvement deployment not focusing on these functions where the organization as a whole would benefit the most?

Another situation is when I was speaking to someone at a conference about the work that they had done. The person was bragging about how much success he had made with a company’s lean deployment. I then responded asking him, wasn’t that company the same one that got bought out by a competitor and you lost your job because your company was having financial difficulties? He said
yes, but we did so much in lean. My response to him was that improvements need to be made that help make the company financially, which apparently did not occur with his lean deployment.

These types of issues often happen with a lean process improvement focus; however, Six Sigma can have similar improvement effort issues. In Six Sigma, benefits are often described in how much savings occurred because of a deployment; however, 100 million dollars might be reported as savings but nobody can find the money. The reason for this disconnect is that locally in an organization there might appear to be savings but these benefits do not rollup to big-picture financial benefits, perhaps because the improvement effort was not in a bottleneck for the organization. Similarly in lean, much effort can be spent conducting kaizen events; however, the organization as a whole does not feel the benefits.

In addition, when times get tough in an organization, often one of the first to get laid off are the lean and/or Six Sigma practitioners. Apparently the executives often view improvement practitioners as overhead and are not seeing the value of what they have been doing. What is wrong with this picture? What should be done differently?

What is needed is a business management system that integrates lean and Six Sigma efforts so that the enterprise as a whole benefits when improvement actions are undertaken. This system needs to address the above described five points. This methodology should be:

1. A management philosophy that involves everyone in the organization
2. A methodology that addresses both short-term issues and long-term gains and utilizes the expertise of everyone in the organization
3. An approach that gets employee ownership in the process to make changes
4. A technique that has a structured roadmap that which integrates lean and Six Sigma tools so that the right tool is used at the right time
5. A structured management approach that is not based on what someone saw somewhere else but is formulated to lead organizations toward achievement of the three Rs of business; i.e., everyone doing the Right things, and doing them Right, at the Right time

1.2 Steps for Lean Six Sigma Success

Both lean and Six Sigma methodologies are not a business management system. In addition, neither lean nor Six Sigma improvement methodologies typically structurally align their efforts to reported organizational performance measurements. What is needed is a business management system so that strategic improvement efforts focus on what 30,000-foot-level performance metrics need improvement so that the enterprise as a whole benefits. The most important tool, lean, Six Sigma or other approach, is then utilized to improve the performance metric.
Integrated Enterprise Excellence (IEE) is a 9-step business management system that addresses these needs. Figure 1 describes the 9-step roadmap for IEE.

Step 2 of this 9-step process is very important. The IEE value chain describes what is done within an organization and how it measures what it does. Both local and strategic improvements can be targeted in the IEE value chain processes and value streams to improve their predictively-reported performance metrics.

From Figure 1, it should be highlighted that strategic projects are identified and executed in step 7 of the roadmap. These projects are:

1. To improve a 30,000-foot-level reported measurement that was identified in step 6
2. Which is also aligned to strategy creation (step 5)
3. In turn aligned to the financials (step 4)
4. Where the enterprise as a whole was analyzed (step 3) to determine where efforts should focus so that the big-picture benefits.

These identified process improvement efforts can involve lean, Six Sigma, both lean and Six Sigma tools, or some other methodology. The tool that is used to improve an IEE value-chain metric is not as important as the metric being improved. Strategic metric improvement needs creates a pull (again use of a lean term) for improvement projects that benefit the enterprise as a whole. In addition, the owners of the processes that need their metric improves will be asking for timely completion of the improvement project. More details about this strategic alignment for project selection is described in the article “Project Selection with Whole Enterprise Benefit.”

Figure 4.7 Integrated Enterprise Excellence, Volume II – Business Deployment: A Leaders’ Guide for Going Beyond Lean Six Sigma and the Balanced Scorecard, Forrest W. Breyfogle III, Citius Publishing, 2008

Figure 1
1.3 Roadmap for Integrating Lean and Six Sigma Tools for Improvement Project Execution

Improvement projects should give focus to improving 30,000-foot-level reported metrics. A consistent detailed roadmap for executing these improvement efforts should be followed so that a more consistent thought process is followed (and wasted efforts minimized) when integrating lean and Six Sigma tools in this effort. Figure 2 describes a Define-Measure-Analyze-Improve-Control (DMAIC) roadmap that truly integrates lean and Six Sigma tools.

From Figure 2.1 Integrated Enterprise Excellence, Volume III – Improvement Project Execution: A Management and Black Belt Guide for Going Beyond Lean Six Sigma and the Balanced Scorecard, Forrest W. Breyfogle III, Citius Publishing, 2008

Figure 2

When the Figure 2 roadmap was initially described the 1999 book Implementing Six Sigma (1st edition), tools were placed in the phases similar to what GE had done with their Six Sigma deployment. Because of this, a drill down was created for the measure phase, since some of the tools that were assigned to this phase did not seem to be a "measure" topic.

In the 2003 second edition of the Implementing Six Sigma, "Lean Assessment" was added to the roadmap, which involved the inclusion of techniques such as value stream mapping, takt time, and Little’s law. More recently in the IEE Volume III, many lean methodologies have also been added in the “improve” phase; e.g., kaizen event, 5S, visual management, one-piece flow, and total productive maintenance (TPM).

For an improvement project, what is desired is to improve the “baseline project’s” 30,000-foot-level metric. To reiterate, with the IEE approach it does not matter if the improvement involved a kaizen event or a detailed statistical analysis to assess differences between machines, sites, or shifts to gain insight to what should be done differently. The proof that a change was made is that the 30,000-foot-level metric transitioned to a new enhanced level of performance.
Summary

Executive management is not interested in the tools that a practitioner uses for process improvement. C-suite executives are interested in quantified results that benefit the enterprise as a whole.

Lean and Six Sigma practitioners should unite in helping their organizations address this organizational executive need. Businesses benefit when these people unite to determine what can be done to create a systematic business system that orchestrates business processes and improvement efforts. Much can be gained in this effort when there is an integration of predictive metric (30,000-foot-level) reporting with analytically/innovatively targeted strategies that lead to improvement efforts so that there are big picture benefits and customers seek out the company’s products/services. Integrated Enterprise Excellence (IEE) provides the roadmaps and steps for lean and Six Sigma success and organizational benefit as a whole.