

## **Leveraging Lean, Six Sigma or Both?**

### **Issue Based Lean Six Sigma: A recommended approach**

BLCN have been hearing from companies how they must solely use Lean or Six Sigma to obtain benefits with their internal improvement programs. At BLCN, we understand the value both methods bring. BLCN highly recommends using an issue based approach leveraging Lean Concepts, for most back office and manufacturing floor improvement projects, and then using Six Sigma to reduce variation where applicable.

The objective of this paper is to explore how companies can leverage both, Lean Concepts and Six Sigma, defining how to leverage the differences and maximize the company's program potential.

Here are some basic backgrounds for each approach:

1. **Lean Business Process Improvement:** Lean became popular decades ago to drive out process waste from the manufacturing floor. The focus is to increase throughput and reduce cycle time while eliminating waste and improving quality. Since its inception, Lean has quickly moved to the non-manufacturing areas, using "swim lane" process flows and an issue based approach for analysis and design. Lean process improvement efforts are grounded by the organization's Strategic Intent. The analysis will also include Customer needs and wants, sometimes called Voice of the Customer or Customer Touch Points. The end objective is to redefine the operating business processes to meet the business objectives, customer requirements, reduce cycle times / process waste and establish key metrics.
2. **Six Sigma:** Six Sigma was introduced in the mid 70s to take manufacturing and product design to the next level. The focus here was to reduce variation and hone product variation down to near perfection. This is extremely beneficial for project based situations that require a high level of quality for a very tight specification, such as medical equipment, or for failure analysis.

BLCN believes that the best approach is to leverage both of these concepts to achieve the desired results. We advocate first using issue based Lean process improvement to obtain the base value in process, establish key metrics and continuous improvement. Using an issue based Lean approach will satisfy a majority of the business process issues and objectives. Once the process has stabilized, then use the Six Sigma statistical tools to reduce variation leveraging the data captured within the process.

The BLCN Process Maturity Model criteria can help explain this. The various stages of this model are:

- **Stage 1:** Ad hoc: Not a stable environment. Lacking basic management practices
- **Stage 2:** Repeatable: Foundation for basic process. A process at this stage can be easily performed; documentation is available, measurable and can train to. Processes may be different at various locations within the same company.
- **Stage 3:** Defined: Builds on repeatable processes and defined the outputs or deliverables, cross functional linkages to other processes are understood and documented, and the processes are well accepted organization wide. Quality measurements are added and continuous improvement established.
- **Stage 4:** Managed Level: Complete integrated processes with health measurements that align with strategic direction, allowing the organization to predict future needs based on current operations.
- **Stage 5:** Optimized Level: Data on effectiveness is continuously being used to optimize the process / product with ongoing efficiency and tight tolerances.

Using this model, many companies find themselves in Stage 1 or 2. To obtain process excellence, common processes across multiple locations / organizations, or quality certifications such as ISO, the fundamentals of Stage 3 need to be obtained. Stage 4 is needed to ensure long term objectives are aligned with process improvement and ongoing product design / failure analysis. Stage 5 is then useful for high end manufacturing and product design (Design for Six Sigma) with tight tolerances. NOTE: Most companies will run well with many processes in Stage 3 and the competitive advantage processes in Stage 4.

Issue based process improvement using Lean Concepts will easily get you through Stage 3 and well into Stage 4. Then using a combination of Lean (continuous improvement) and Six Sigma (variation) will help you move into Stage 5. Six Sigma is not as effective until there are established data points that can be used in the statistical analysis. The cost of implementing Six Sigma is high and requires skills and understanding that will scare off most of the organization. This is why we recommend using the issue based process improvement / Lean Concepts first, and then selecting the few key areas to leverage your Six Sigma skills. This will provide the best value for your consulting / training dollar and obtain the most value with your internal improvement programs.

These methods also rely on other fundamentals:

1. Obtaining Executive alignment of the strategy, goals and objectives. This will serve as the grounding and direction for each project.
2. Understanding and evaluating the Customer Touch Points for high impact and value to the various customer segments. A similar approach is valuable with your supplier base too.
3. Assessing the various organizational risks associated with a project and the related change impact to that organization. Organizational Change Management techniques identify risk areas and define actions to mitigate those risks. These techniques are used to help move the organization through the change; and include job design, communication planning and readiness assessments.
4. Managing scope and execution to ensure value is derived and the scope does not creep creating time delays and cost over runs with strong project management.
5. Once the project is complete, the impacted processes should be reviewed every six months to a year, to confirm that the benefits were received, adjust to new customer requirements and perform continuous improvement analysis.

In summary, the BLCN team strongly advocates using an issue based process improvement approach, leveraging Lean Concepts to reduce process waste / cycle time, and improve output quality. Then, only in select areas where needed, use the statistical strengths of Six Sigma to reduce variation.

Please visit with a BLCN Principal for more information regarding:

1. Business Strategy Validation
2. Transformation Office / Program Management Office design and implementation
3. Process Excellence Programs
4. Process improvement consulting offerings
5. Issue Based Lean Six Sigma Improvement and Requirements Documentation Training
6. Organizational Change Management Consulting and
7. Our other offerings, including Six Sigma Training and Consulting.

Or contact us directly about any issues or questions you may have regarding this subject.

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