Better Business Process Optimization

By C. Richard Panico

The ability to successfully combine project management best practices with Six Sigma methodologies allows business processes to be efficient, agile, and to meet customer demands—giving organizations a competitive advantage in the marketplace.

Traditional business has realized that "faster, better, cheaper" are not the only prerequisites of success. To dominate an industry, an organization must continually innovate and remain agile to respond quickly to change. Organizations need to have the ability to pursue strategic initiatives with confidence. They also need the means to consolidate their business during economic downturns, using cost-effective new tools for business process integration.

Achieving these outcomes first requires equipping executive management with accurate information to make educated decisions for strategic course corrections and realignment. Once decisions are made, implementation of these *business process optimization* (BPO) projects often requires an organization to examine and pursue opportunities to reduce costs and cycle times while increasing service levels or product quality. Combining Six Sigma and project management methodologies provides an excellent framework for ensuring seamless execution and delivery of sustainable results.

Don't Compromise Quality for Efficiency

For many consumers, quality is as important, if not more important, than cost. Six Sigma methodologies can be used to embed quality into process optimization projects. Six Sigma's goal is the near elimination of defects from any process, product, or service—limiting defects to just 3.4 defects per million opportunities. Additionally, to ensure organizational alignment, Six Sigma methodology requires that all improvement projects must be integrated with the goals of an organization. The *DMAIC* methodology employed by Six Sigma (The Black Belt Memory Jogger, 2002) includes the following activities:

- Define—identify customer needs and the processes and products to be improved.

- Measure—determine the baseline and target performance of the process, define input and output variables of process steps, and validate the measurement systems.

- Analyze—analyze data to identify critical factors needed for process execution.

- Improve—identify improvements (process, procedural, systemic, etc.) to optimize the outputs and eliminate and or reduce defects and variation. Statistically validate the new process operating conditions.

- Control—monitor and assign overall responsibility for sustaining gains made by the implementation of process improvements.

Hit the Desired Target

BPO projects follow the same method as defined by the Project Management Institute (PMI), in which projects are broken into five process groups: initiating, planning, executing, controlling, and closing.

- Initiating—authorize the project and define the project scope.

- Planning—define and refine objectives and select the best courses of action.

- Executing—coordinate people and other resources to carry out the plan.

- Controlling—ensure objectives are met by monitoring and measuring progress regularly to identify variances from plan so that corrective action can be taken when necessary.

- Closing—formalize acceptance of the project and bring it to an orderly conclusion.

Initiating and Planning Stages

One of the most critical activities to ensure the success of any project is the clear and concise definition of the objectives, goals, and milestones in the project's planning phase. The purpose of the project must support the organization's vision and mission statements, and requires the support and commitment of senior management. BPO projects should define the specific business process to improve. This formal definition of the process optimization scope eliminates any confusion and formally defines the subject boundaries. Additionally, it assists in the identification of the final product deliverable.

Six Sigma is a data-driven problem-solving methodology that requires the formal definition of performance standards. When planning for a process optimization project, specific Six Sigma tools and activities are used to characterize customer needs and processes to be improved. These tools include the mapping of the high-level process in its current state, identification of the existing performance measures, and a process financial analysis. Specifically, Six Sigma seeks to identify the *costs of poor quality* (COPQ). COPQ includes costs of rework, rejects, inspection, testing, and other considerations—such as the cost of customer complaints. While a BPO project's benefit can be measured financially (hard) or nonfinancially (soft), most business cases are based on the hard benefits.

Six Sigma projects take the needs of the customer into consideration. The project team must understand how the process problem links to the eventual customer. Six Sigma employs *voice of the customer* (VOC) research to gain this important insight. There are many different methods of researching the customer's voice—including, but not limited to, a customer complaint database, direct customer contact, and indirect customer contact.

The *suppliers, inputs, process, outputs, and customer* (SIPOC) high-level process mapping tool is another effective to use in a BPO project. It is a simple yet effective tool to align the project team and all stakeholders as to the core process within the scope of the project. It is important to note that it is too early in the project to detail the existing process; that comes later in the measure phase.

Similar to any other project, a BPO project requires the formal identification of a project team with a clear structure, roles, and responsibilities. Use of the SIPOC ensures that all process stakeholders are represented on the core project team.

Remember, the initiating and planning phase of a BPO project starts by formally identifying the process problem, not with the identification of a process solution. Six Sigma tools such as SIPOC, COPQ, and VOC help the project team identify the potential issues, process scope, and essential process representatives before the organization invests substantial time and money in the initiative.

Execution Stage

During the execution phase of a BPO project, developing process measures are critical. These measures must identify and capture data on key performance indicators to determine process effectiveness and efficiency. In general, the following steps are completed to measure the performance of a business process:

- Develop a data collection plan for the process.
- Identify process efficiency data collection sources.
- Identify process effectiveness data collection sources (primarily customers of the service or product).
- Collect efficiency and effectiveness data to determine process performance baseline measurements.

Six Sigma employs process diagrams as a tool to define and illustrate discrete process steps and specific metrics for process efficiency. This can be used to promote an understanding of the key business processes across the supporting functional areas, as a tool for training purposes and as the basis for identifying process improvements later in the project. A high-level process map may include additional information such as cycle time, resource utilization, defect rates, waste, work-in-process queues, and customer satisfaction.

The next step in a process optimization project aims to identify those critical factors that enable or hinder process execution success. Six Sigma defines this as the *analyze phase*. A SWOT analysis is one tool that assists the project team in analyzing the current process. While strengths and weaknesses focus on internal factors, opportunities and threats identify external factors that affect the process.

Pareto analysis, another Six Sigma tool, helps identify the most common categories or reasons for process failure. Pareto charts are simply frequency plots where the most frequent results are placed in order from the left side of the chart to the right. The chart also plots the cumulative frequency from the left of the chart. A large sample of data in each Pareto chart will ensure meaningful results.

Improving Process Performance

After the project team identifies process inefficiencies and causes of failure, its focus turns to the identification, development, and implementation planning. If the process is to be re-engineered, the project team may choose to create a desired-state process map. Mapping the desired-state process is a very useful tool that allows the team to visualize the optimized process and ensure that all process weaknesses and threats are amply mitigated, while sustaining process strengths and exploiting process opportunities.

Controlling Stage

Following the development and testing of systemic, procedural, or responsibility enhancements, the BPO project team's efforts should focus on ensuring that the solutions are implemented and measured for effectiveness. The team must identify measures to be tracked after the desired-state process is deployed. This includes the identification of who is responsible for collecting and analyzing the process data and reporting process efficiencies and effectiveness to the entire organization. Six Sigma projects typically employ statistical process control charts that track the stability and variation of a particular process over time, showing control limits that the results will fall between if the process is "in control." Use of any statistical process control chart requires regular updating and review to ensure its relevance and to ensure that process performance does not decline again.

Process change control is another key that ensures continued alignment with an organization's strategic goals. As documented in the *Certified Six Sigma Black Belt Primer* (2002), a classical model for managing the change process has three phases: unfreezing, movement, and refreezing. Once a process change is identified and ready for deployment, the "unfreezing" of existing behavior patterns must be addressed. Typically, most work groups are resistant to change. People or practices must then be moved to the process change either through training or technology. When process resources have acquired the necessary skills and technology is in place, the process is then "refrozen" to ensure that the process or department is aligned for organizational effectiveness.

Organizations are able to achieve sustainable and effective process improvement by combining project management best practices with certain Six Sigma methodologies. The ability to combine these proven methodologies provides the structure and discipline required to identify process improvement opportunities, develop sustainable solutions, and lead the organization through the strategic change process. Use of these integrated techniques allows business processes to be efficient, agile, and to meet the organization's customer demands—ultimately allowing the company to achieve a level of competitive advantage in the marketplace. **GCI**

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