Strategic Sourcing

Is it a Variant of Lean Six Sigma?

Lee E. Simon

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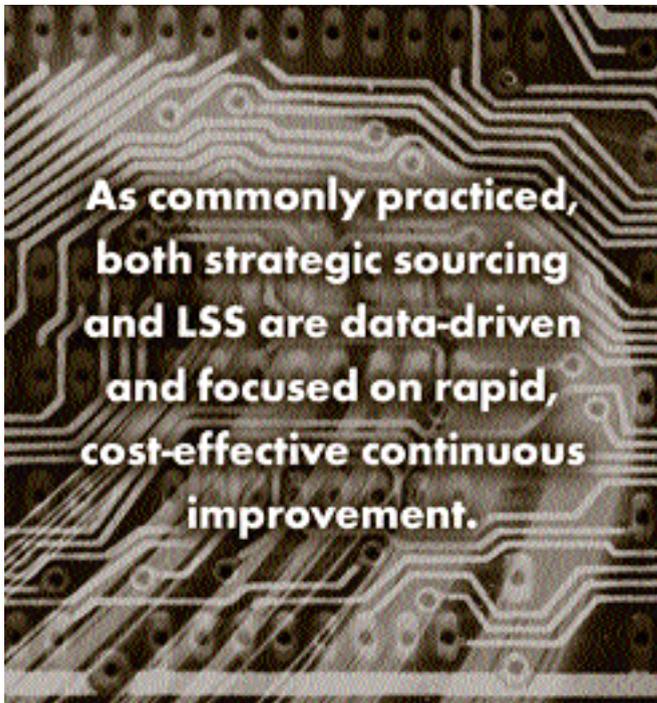
Strategic sourcing (as defined in the May 25, 2005 memorandum issued by the Office of Management and Budget) is "the collaborative and structured process of critically analyzing an organization's spending and using this information to make business decisions about acquiring commodities and services more effectively and efficiently." Matching the voice of the customer and the voice of the market is a subtle but important part of strategic sourcing.

Lean Six Sigma

Lean Six Sigma (LSS) is an organized collection of techniques that focus on increasing speed ("Lean") and improving quality ("Six Sigma"). Matching to the voice of the customer and the voice of the process is critically important in LSS.

As commonly practiced, both strategic sourcing and LSS are data-driven and focused on rapid, cost-effective continuous improvement. Strategic sourcing could easily be viewed as a special type of transactional LSS project.

Transactional LSS projects range between two extremes. The first extreme mimics manufacturing LSS, where simply improving efficiency brings improved effectiveness as a byproduct. A transactional example of this could be a pizza order call center where quickly walking the customer through a limited set of standard choices and accurately documenting the result are the hallmarks of efficiency. The efficiency metrics might be calls taken per staff-hour and errors per hundred calls.

The second extreme is distinctly different from manufacturing LSS and focuses on improving effectiveness (with efficiency as a secondary benefit of effectiveness). An example would be a suicide-prevention call center where keeping the client alive is the overarching effectiveness goal. The metrics might be dropped (missed) calls, percentage of clients talked out of suicide, and clients who were successfully referred to a clinician.

A key effectiveness concept in Strategic Sourcing is an end-to-end look at the acquisition process. With this, we look at reducing the "noise" that obscures the true voice of the customer from the supplier as well as the noise that makes it difficult for the customer to recognize what needlessly drives up supplier cost. Typically, efficiency-focused LSS project opportunities are often discovered as a Strategic Sourcing project team gathers information on and understanding of the requirement and the market.

The Strategic Sourcing project team is called a commodity team (CT) or sometimes a commodity council. Generically, Strategic Sourcing starts with an opportunity assessment that identifies a target for study. Strategic Sourcing is an improvement process during which the CT develops a profound understanding of the requirement and the market that supplies it. With this understanding (analysis) in hand, the CT develops an improvement strategy. The team then implements the strategy and manages (controls) resulting contract performance.

Some of the key concepts underlying Lean Six Sigma are:
- Lean
  - Focus is eliminating non-value-added (from customer perspective) waste in a process or service

Simon, *a retired captain, Medical Service Corps, USNR, served as consequence management officer, I Marine Expeditionary Force, prior to joining the Marine Corps Business Enterprise Office of Headquarters Marine Corps, where he has been active in the startup of Lean Six Sigma and Strategic Sourcing.*

- Result is reducing service cycle times, improving on-time delivery of products and services, and reducing cost
- Six Sigma
  - Term originally comes from statistics
  - Focus is reducing variation in a process
  - Result is achieving improvements in service, quality, and cost
- Theory of Constraints
  - Emphasizes throughput
  - Convoy is only as fast as the slowest ship.

Generically, a Lean Six Sigma improvement project follows the DMAIC process—Define, Measure, Analyze, Improve, Control.

Strategic Sourcing as a Lean Six Sigma Project

The opportunity assessment that is the first step of Strategic Sourcing includes a review of existing data called a spend analysis. This uses some traditional "analyze" phase DMAIC techniques to identify potential CTs.

Like other LSS teams, the CT essentially uses a Plan-Do-Check-Act cycle. Like other LSS projects, a CT project normally starts with a charter. Strategic Sourcing usually deals with a transactional process that does not mimic manufacturing. CT projects are based on common characteristic combinations of the requirement (product and/or service) and of the market that provides that product and/or service. Like a Black Belt LSS project that may be approached as a series of Green Belt projects addressing specific steps in the process, a Strategic Sourcing project may be approached by the CT as a series of smaller included slices. Strategic Sourcing slices tend to be horizontal (end-to-end but covering only a subset of the commodity) while LSS project slices tend to be vertical (necking down into a subprocess).

Like other LSS projects, the CT project looks for waste, but the emphasis in the CT waste search is on requirement-market (customer-supplier) mismatches. This focus is an outward look from the purchasing subprocess of the larger acquisition process rather than an inward look at purchasing or some other subprocess. Traditional LSS looks at waste in the "white space" between steps in a process, or waste within steps of the process. The Strategic Sourcing approach has more emphasis on the high-level Lean portion of LSS. The key Strategic Sourcing emphasis is to avoid inadvertently asking the supplier to provide the real customer with waste. An example might be asking the supplier to paint the yellow rescue kit green only to find that the rescue team repaints the green rescue kit back to standard rescue yellow.

The DMAIC Model

LSS uses the DMAIC model, which is discussed below and related to Strategic Sourcing steps.

Define

The typical LSS tollgate for the Define phase is a charter with objective, scope, team, goals, tollgates, and schedule.

In traditional LSS, the purpose of the Define phase is to select an appropriate project and then clearly define the problem in terms of "voice of the customer" or CTQs (Critical To Quality; e.g., a translation of customer needs into quantifiable requirements for the product/service). Traditional substeps of Define are (1) qualifying the project and defining its boundaries; (2) determining the project approach; (3) defining expected outcomes; (4) identifying stakeholders; (5) selecting the team; (6) kicking off the project; and (7) creating the project plan.

In Strategic Sourcing, the opportunity assessment identifies potential projects based on an initial spend analysis and on organizational priorities. It assures that there is an ongoing demand for the commodity to be addressed, and assures that there are sufficient potential savings in order to justify the effort (usually potential cost-avoidance, but sometimes the saving is simply better fulfillment of customer requirements). Strategic Sourcing and traditional LSS projects emphasize, from inception, the need for a good return on investment.

The outputs and deliverables of the opportunity assessment are a prioritized list of potential commodities to be strategically sourced (i.e., a list of opportunities) and a draft charter for the next project to be addressed by a CT.
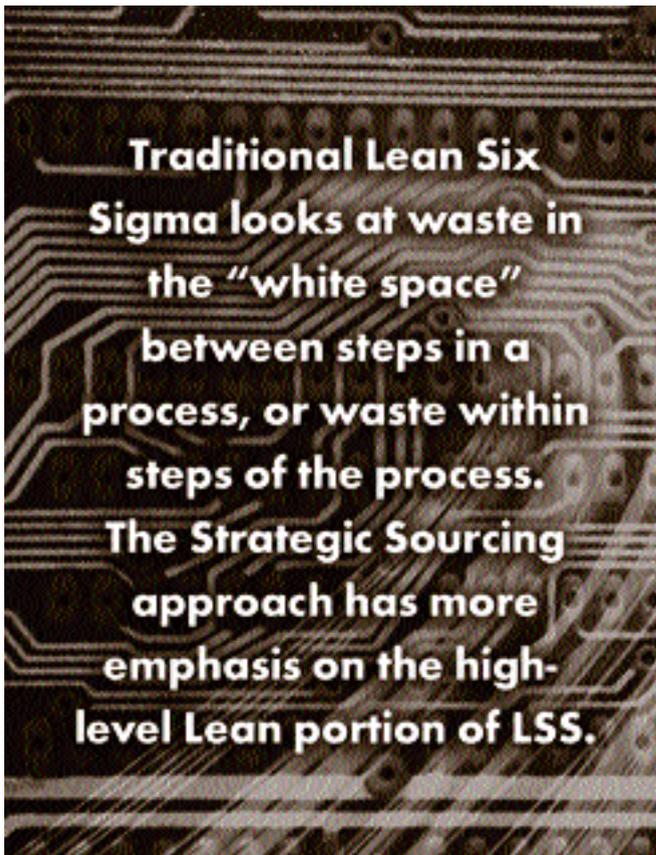
Measure

The typical LSS tollgate for the Measure phase includes data and information summary, and current-state value stream.

The LSS team maps the current process and documents customer requirements. The existing process is documented at a relatively high level. Data are collected and the LSS team verifies that the process is stable or in statistical control.

Strategic Sourcing as a Variant of Lean Six Sigma

Characteristic	Lean Six Sigma	Strategic Sourcing
Data Driven	Yes	Yes
Voice of customer	What customer wants	Customer requirements with transparency on cost drivers
Waste elimination focus	Internal process	Redundant transactions and externalized costs
One time only?	No—continuous	No—cyclic and continuous

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The Measure phase is typically addressed in two steps of a Strategic Sourcing project. The first is the "profile commodity" step, where a thorough analysis of the existing and future requirements, as well as what drives those requirements, is undertaken. Profile commodity is sometimes called requirements analysis. The second is the "profile market" step, where a thorough analysis is undertaken of how the market sees itself and what drives supplier cost. Ideally, this step yields market data including cost, profit, cost drivers, industry forecasts, and other information.

As noted, the CT develops a profound understanding of the requirement (voice of customer) and the market that supplies it. Data are collected on the current requirement and the projected requirement as currently understood. Exploratory data are collected on what drives the customer to have the requirement. Data are concurrently collected on the market that supplies the current requirement and what drives costs within that market. Ideally, the CT recognizes—to make a basic analogy—when their eggs are expensive simply because they are buying them in cartons of 10 rather than cartons of 12 like the rest of the market. If the data show that the customer doesn't really care about the carton size, then no one would really want to pay for unneeded custom cartons.

In Strategic Sourcing, measurement is focused on developing a deep understanding of the real-world market. Un-

like a process that must be "stable" in order to be ready for LSS improvement, the market is not necessarily stable (i.e., in statistical control). Therefore, unlike traditional LSS, the CT should place little emphasis on confirming process stability during the Measure phase. Instead, they should emphasize the identification of ongoing cost drivers in the market. However, there is an environmental scan for special-cause cost drivers—perhaps the possibility of avian influenza (bird flu) killing chickens and temporarily distorting egg prices.

The outputs and deliverables of this measure phase (the profile commodity and the market analysis steps) for a strategic sourcing project are a commodity profile (data and briefing) and a market profile (data and briefing).

Analyze

The typical LSS tollgate milestones for the Analyze phase are identification of non-value-added efforts, bottlenecks, and wastes, along with their root causes.

The Analyze phase of traditional LSS concentrates on Six Sigma to reduce variation and reduce defects. LSS also concentrates on identifying the eight forms of waste (overproduction; waiting; transport; extra processing; excess inventory; motion; defects; and underutilization) in order to become Lean.

The Analyze phase for Strategic Sourcing concentrates on identifying mismatches among voice-of-customer requirements as stated in the contract, and cost drivers in the market. Within the acquisition process, customers may be modifying their true requirement in order to accommodate perceived constraints imposed by purchasing or imposed by what is seen as a good value in the existing market. Hopefully, the outputs from the Measure phase identify these mismatches which can be the root cause of waste.

The Analyze phase looks at the transaction costs within the purchasing process. This involves reducing costs that fragmented transactions impose on the government and/or the supplier (which, in turn, are reflected in the price that the government ultimately pays).

The Analyze phase also looks at the drivers of the total cost of ownership. A low initial price with a high operating cost or a high disposal cost could make that initial low price offering a bad choice when total cost of ownership is considered.

And finally, the Analyze phase looks at legal requirements and socio-economic goals when developing a suite of

though we can't remember the problems off the top of our heads, we can send you our reasons for rejecting it in a day or two," the team usually ends up gaining acceptance for the plan. If someone can point out a flaw in your logic (including the basic assumptions) rather than your specific plans, then you had better go back and reconsider your plan.

Understanding Your Functional Specialists
There's another benefit to understanding what your functional specialists do. Many teams are staffed one-deep in the specialties. If one person gets sick, goes on vacation, or—even worse—gets reassigned before the replacement shows up, progress can come to a grinding halt. If you can at least take care of some of the missing person's responsibilities, then progress can continue forward, even if not at full speed. (In fact this additional benefit of cross-coverage is a good idea not just for PMs, but for all acquisition workers.)

The obvious question is "How do I prepare for that?" The simple answer is training and education in all of its forms. Take classes in the various specialties, not just those required for DAWIA certification in program management. Look at the training required for the various functionals and start taking those classes. It won't be easy to get into a lot of those classes, but keep pressing the point. Organizations also need to realize the benefit to this and be willing to expend budget on cross-training.

Don't forget informal education. Sit down with different functionals and find out what they do, how they do it, and why. And if you're reading this article, then you are already familiar with *Defense AT&L* magazine. Keep reading articles, even those that might not appear to hold interest at first. You never know where the next great nugget of information is going to come from.

Looking Beyond Program Management
Some day you'll probably move on. This may or may not be when the particular program or programs you are working on are complete, or even at a logical transition point. One last functiona PM might consider is training someone on the team to take over when that time comes. Sharing information and building up good team relationships will make for a smooth transition. If you can find one or more people, then develop and mentor them so that the program will carry on as well as (or maybe even better than) when you were in charge. Do that and you've not only distinguished yourself as a program manger, you have made yourself a leader!

strategies from which the improvement strategy will be selected.

The outputs and deliverables of this phase are a proposed strategy tailored to the specific commodity, a simple business case, estimated savings, and a decision brief.

Improve
The typical LSS tollgate milestones for the Improve phase are countermeasures to address root causes of waste and a future-state process map with performance targets.

The Improve phase of a Strategic Sourcing process converts an acquisition strategy into agreements; contracts; and tangible, streamlined procedures. Typical procedures use best practices to increase transparency between suppliers and end users, increase competition and/or partnering, and reduce transactions costs.

The outputs and deliverables of the Improve phase are new or revised contracts, data-capture improvements, forecast-sharing improvements, and updated procedures.

Control
The typical LSS tollgate milestones for the Control phase are planning for sustainable improvement, standardizing work for the improvement, establishing key process output measures and a measurement plan, and recording the results of any pilot studies.

The Strategic Sourcing Control phase is usually referred to as "managing performance" and includes monitoring best practices that were implemented to see if they are performing as expected. Continued communication and partnering with suppliers and customers insure that transparency is actually facilitating the avoidance of inadvertently driven-up costs. Spend analysis is used to monitor competition (in order to assure that prices do not creep up) and adverse impacts on transaction volume with its associated cost.

Improves Effectiveness
Traditional Lean Six Sigma is patterned on manufacturing where improved efficiency typically brings improved effectiveness as a by-product. The Strategic Sourcing variant of Lean Six Sigma shares characteristics with some other transactional processes. Strategic Sourcing improves effectiveness and, as is seen in many other transactional processes, generates efficiency as a by-product of effectiveness.