Using the Lean Value Stream Map to Connect the Dots

By Shannon Flumerfelt

A new employee in a government purchasing office was at lunch with a trusted colleague one day and described her recent interview with the management team she now works for. She explained how shocked she was that the management team fumbled when she asked about the relationship of the organization’s mission to the daily work in the office. As a potential employee, she was surprised to learn during the interview that the daily work appeared separate from the mission.

Government financial offices are busy places where well-intentioned people work within complex systems, comply with accounting standards, follow legislative mandates, and meet political and societal expectations. However, as the new purchasing agent’s interview experience highlights, failure to understand the organization’s mission and to engage with it in the context of daily work is a common problem known as organizational drift. The deviation is normalized, and the mission no longer guides the enterprise, let alone individual employees’ work. When this happens, work processes can quickly lose their potential for creating value and become bastions of waste. To get back on track, the management team needs to ask a critical question: “Is it possible to connect daily work to the organization’s mission in a way that leads to performance improvement?” This article will demonstrate how a Lean tool, the value stream map, can be used to do just that.

MISSION-BASED IMPROVEMENT

Using the value stream map, organizations can examine and improve work processes systemically, through collaborative means. The value stream map considers two essential perspectives: what the critical stakeholders (i.e., customers, clients, beneficiaries, employees, and suppliers) need from the process, and what product or service results from the process. The organization’s stated mission should help identify those that are served, what they require from the government organization, and the core processes used to meet these needs. The value stream map can help the organization better articulate its mission and translate that mission into employees’ day-to-day work activities.

Mission-based improvement to the organization’s work can be realized through a three-step method:

- Creating a current-state value stream map.
- Conducting Kaizen (identifying improvements).
- Creating a future-state map.

Creating the current-state value stream map leads to three considerations:

- Who is my customer/beneficiary/stakeholder?
What metrics within the scope of mission do my critical stakeholders value?

What do my critical stakeholders get from my organization?

William K. Balzer described the current-state map as an opportunity to “personally experience and thoroughly understand the process” and as “a practical starting point” to see where a process adds value and where it suffers from waste.

The second step, conducting Kaizen, leads to critical examination of two issues: What is wrong with this process, and what process improvements must be made? Balzer describes Kaizen as a chance to “see the wide variety of waste that adds no value from the perspective of the beneficiary and disrupts smooth flow in the process.”

The third step, creating a future-state map, leads to these two questions: What will be different, and how will it be different? Beau Keyte and Drew Locher described the future-state value stream map as “the opportunity for the management team to redefine the enterprise.”

**AN EXAMPLE: TEACHING TECHNOLOGY**

To illustrate value stream mapping, consider the example of a public school’s process for deciding to purchase a major teaching technology. Thinking that spending the money would solve the problem, the school purchased the technology and put it in every classroom. A few months later it became painfully obvious that the new technology was only used by a small portion (10 percent) of the school, resulting in a significant waste of resources. This outcome showcases a disconnect between the mission of the public school system and the work of the purchasing and teaching employees. The school system’s results would have been much different if it had used a value stream map.
Creating a value stream map would start with a shared understanding of how teaching technology was being used in the classroom. The customer, the metrics of value, and the flow of the teaching technology learning process would be depicted on a current-state value stream map. The process itself is mapped out in sequential steps, with arrows indicating the process flow. Under each process step box, list the metrics for that step. Exhibit 1 shows the current-state map for the school.

The current-state value map is then used for a Kaizen event, during which the school identifies waste in the learning process that is caused by a lack of teaching technology. Yellow Kaizen burst icons are placed on the current-state value stream map wherever waste exists, with short written explanations. Reviewing the Kaizen bursts reveals problem areas such as gaps in faculty’s understanding of the new technology. To rephrase, Kaizen has occurred when problems such as insufficient training in and use of teaching technology are shown and solved on the value stream map. In this case, Kaizen would likely include a good cost-benefit analysis of the new technology’s impact, a root-cause analysis to uncover the learning gaps related to using teaching technology, and a cause-effect analysis of why teachers may not be skilled in using teaching technology. Kaizen bursts placed on the current-state value stream map would depict each of these areas, and Kaizen would also include creating solutions. Exhibit 2 shows what the value stream map might look like at this point.

Finally, a future-state value stream map is created to show the customer, metrics of value, and the new process and flow. The solutions from Kaizen are represented in the future-state value stream map (see Exhibit 3).

During the current-state value stream mapping experience, it is common to realize that the customer has not been specified or that a customer that isn’t recognized in the mission statement is in fact driving the process. It is also common to see that a process is running with poor metrics or without metrics that are of value to the critical customer. Another typical insight is that a process has no flow or that it has too much flow with extra, redundant steps. The current-state value stream map and Kaizen allow for these problems to be examined in depth, and the future-state
value stream map outlines solutions. In each case, a value stream mapping experience enhances an organization’s mission and does much to align the mission with employees’ daily work.

In the public school example, one benefit of value stream mapping would be to deflate the idea that spending money is the only way to improve the use of teaching technology in the classroom. Instead, it would provide a new paradigm: improving the process of teaching technology usage in the classroom. To do this, the process has to be examined and improved. Rather than spending precious resources to solve a poorly understood problem, the school would design right-sized improvements to match well-understood problems, and then spend the amount needed to achieve the new process of the future-state value stream map.

CONCLUSIONS
Several conditions need to be considered in a high-pressure working environment, including the need to carefully align the organization’s mission with its resource allocation; the need to improve management practices and processes; the need to achieve desired outcomes; and the need to use data to drive policy. Lean provides insight into many of these pressures and their interface with financial management. Lean creates clarity around the organization’s mission as it aids in identifying the critical stakeholders, developing value within processes by removing waste, and providing protocols for understanding how systems within a process influence one another — connecting the dots in government finance management by using Lean value stream mapping.

Notes

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