

You can save time and money by applying lean techniques to the office. **The core methods work as well in the front office as they do on the shop floor.**

Trim Down Up Front

By
Mary Lahr Schier

True story: Workers at a large Midwestern manufacturing company always knew it was time to do the monthly books when the accounting department employees arrived at work with their knitting and novels. It took three 12- to 14-hour days to close all the accounts for the company, which had several plants and many products. The work had been organized years earlier so that each accounting employee worked with a separate plant or division on her account. As each accountant finished, she pulled out something to pass the time while she waited for all the transactions to be calculated and the final numbers to be run.

When James “Beau” Keyte, now an independent lean enterprise consultant, suggested that some work could be done ahead of time or that employees could be cross-trained to help each other during the three crunch days, the response was typical: “We’ve always done it this way.” The lesson: Battling inertia and history makes implementing lean enterprise techniques in the office challenging—perhaps even more challenging than on the factory floor, says Keyte, owner of Ann Arbor, Mich.-based Branson Inc. and the author of a forthcoming book on how to put lean practices to work in office settings. However, companies may find the benefits of lean techniques in the office just as significant as lean manufacturing. Improved work flow through the front office can cut the time from order to payment, boost sales because of quicker customer response, and allow a company to develop new markets as it services customers more efficiently.

FOLLOW THE VALUE STREAM

Like lean manufacturing projects, lean office efforts begin with a map of a company’s value stream. Essen-

tially, the managers and employees from all affected departments track the steps an order takes as it moves from the first customer request to the manufacturing process or to payment. A value stream map determines which steps add real value—i.e., the value customers are willing to pay for—to the product. “In a factory setting, you’re talking about mapping inventory,” says Dick Pedersen, a business consultant in MTI’s Owatonna office. “In the office, it’s the paper: the quote, the information about the product.”

“When you do a lean transformation, generally you begin by addressing the core value stream first,” says Keyte. “In a manufacturing company, that’s the shop floor. Next, you look at the value streams that can directly affect the core value stream. Purchasing, for example, can make or break a day on the manufacturing floor. So can sales or engineering—or human resources, if you haven’t got the right people in place. Finally, you would look at the truly administrative functions, such as legal and finance.”

Value stream maps can reveal how—and how well—a business works. By tracking an order and measuring where it goes and how long it sits in one place, companies can uncover the roadblocks in product flow. They often find office employees repeating each other’s work, going to the same spot for different information numerous times, or correcting mistakes made earlier in the process. “You need to find out how it progresses, where it stops, and why,” says Keyte. He cites three of the most common weaknesses identified by value stream mapping.

In 2003, Stacy Newman of Custom Iron Inc. helped the company implement a lean office program that involved employees from all levels of the company.



OFF THE MAP

Lean office forges efficiency at Zumbrota-based Custom Iron Inc.

When workers at Custom Iron Inc. in Zumbrota began mapping the route of a typical order, they discovered that their paperwork liked to travel. An order for the company's custom-built metal spiral staircases or railings started at one end of the company's plant with order entry. Then, it hiked to the other end, where the bill of lading was drawn up. Later, it traveled back to get a shipping label.

"Now everything is entered when the order is created and it's all in the folder when it hits the job floor," says Stacy Newman, a shop floor supervisor and one of eight Custom Iron employees involved in a lean office transformation done by the 51-employee firm this past year. The company had seen a disproportionate increase in its office staff over the past few years, says President Terry Driscoll. He approached MTI for help with the lean office project in hopes of reducing inefficiencies and errors, controlling overhead costs and identifying needed skills for the company to grow.

Employees from marketing, sales, engineering, production support, and manufacturing were involved in the project. Newman, who was a production scheduler at the time, saw how repetitive work and inefficiencies were hampering the firm. "We all knew what was happening, but at first we had different opinions on how to fix it," she says.

However, after the employees conducted a value-stream map of the company and its front office operations, they reached a surprising amount of consensus on what to do to improve operations.

Driscoll and company managers "listened really well when we came back with what we needed," says Newman. The company concentrated on "low-hanging fruit," says Driscoll, those operations that could easily be adjusted to improve the work flow. In addition to combining some steps in the process, the company made sure parts numbers were consistent in its computer system, which had recently been changed, and began keeping a log of work in and out of the engineering department to make sure jobs moved efficiently. Workers also developed a checklist for projects to ensure that parts and specifications were in order before a job moved to the manufacturing floor. "Our first step was to get everything small that we could grab on to to have a big effect," says Newman. While many improvements have been made, the company still has several long-range goals and bigger projects to improve efficiency.

Businesses considering a lean office project should be sure that upper management supports the project from the start. "Be prepared to budget the time and resources necessary to complete the projects identified," says Driscoll, who also urges companies to "look at lean as a company culture, not as a project."

Adds Newman: "Managers should take advice from front-line employees. They know what's happening. They are the ones doing the jobs."

—M.L.S.

- [1] **Bad handoffs.** When work moves from one department or function to another, it may be handed off with insufficient or incorrectly gathered information. “Why are sales people getting information from a customer and then having an engineer call to get the same information?” asks Keyte. Bad handoffs may be as simple as more than one person going to the same computer screen for different information, or as frustrating as having work sit in a person’s in-box while he or she waits for enough of one kind of task to do a batch all at once.
- [2] **Technological disconnect.** A company can invest thousands of dollars in an ERP system only to have it thwarted by a single clerk who doesn’t understand the system and won’t use it. “Disconnects in technology kill office efficiency,” says Keyte. “All sorts of people go off-system. They’ll enter information into their own database or spreadsheet and the person after them in the process will have to re-enter it again in a different program.”
- [3] **Freestyle workers.** Sometimes office workers simply like to do things their own way, either because they have always done it that way or because no one has shown them a bet-

ter way. In one Minnesota company, a value stream map discovered that the four employees taking customer orders worked three different ways. “You can be creative in design or other things, but you should not be creative in how you process paper,” says Keyte.

The value stream mapping processes inevitably surprises managers, say those who have done it. “In 100 percent of the companies I have worked with, somebody says ‘I didn’t know it worked like that,’” says Keyte. In addition, initial efforts to apply lean techniques—such as measuring how long processes take or how long paper sits in one spot—may lead to employee resistance. “People in the office are not used to being measured,” says David Ahlquist, a Hutchinson-based business consultant for MTI and leader of MTI’s Lean Enterprise team. “The activity tends to fill the time allotted. Standardization is not something they are used to. People often are doing work their own way or they treat every job like an exception.”

Uncomfortable as it may be, standardization of routine tasks and a focus on systems are essential to improving overall efficiency.

HARMONIC CONVERGENCE

How one Minnesota company used lean office principles to bring new unity to its operations.

Like many of the fast-food restaurants that make up its customer base, Harmony-based Harmony Enterprises Inc., wasn’t used to special requests. Most of the company’s orders for trash compactors and balers arrived as predictably as a number one value meal at the drive-through window. When customers asked for something special—a different motor, waterproof covers, unique hydraulics—the company struggled even to pull together a quote, which sometimes took seven to 10 days. By the time Harmony had its bid ready, customers had often lost interest.

Company president Steve Cremer thought the custom market could fuel the Harmony’s growth, if the firm could respond to requests quickly and well. He turned to MTI to help streamline operations in Harmony’s front office.

The first step was a value stream map—a step-by-step examination of what happened to an order from the initial phone call until the job was released to the factory floor. The mapping project involved employees from every department that would deal with a custom order, including sales, order entry, engineering, accounting, production, and production scheduling. The value stream map revealed roadblocks and duplication of effort in several areas. For instance, information on the cost of certain parts would be available through the company’s computer when an engineer designed the custom product, but it would not be entered into the bid until later in the process. By simply having the information entered at the earliest point, steps could be bypassed and bids could move more quickly. In addition, the company developed cost modules for typical custom requests.

“We found that we could be 99 percent accurate by using a reference from a different quote,” says Cremer. “For instance, if a product needed to be waterproof because it was going to sit outside, why go back and analyze everything when you have information from an earlier job that is similar enough?”

After conducting the value-stream map, Harmony employees developed new systems for handling custom requests, a process which took about nine months. The results have been dramatic. The time needed to produce a quote has been reduced from a week or more to about one day. More importantly, custom orders have increased from about 1 percent of the company’s business to nearly 10 percent. “A big benefit of the value-stream mapping is that employees understand we were committed to custom work as an important way to grow our business,” says Cremer. “Now people know what they are supposed to do and they have timetables to get it done.”

In addition, the project helped employees in the front office understand each other’s jobs better, and improved communication among them. “For me, that has been the biggest benefit that I did not expect,” Cremer adds. “All of a sudden, people were working together. It’s made this a better place to work.”

— M. L. S.



Steve Cremer, Harmony Enterprises Inc.

SYSTEMS, NOT DEPARTMENTS

Once the work flow is mapped, managers need to develop a clear vision of the ideal future state of operations. This may be as simple as a policy which states that all orders get released to production within 72 hours, or that monthly accounts are completed by the fifth of the next month. Getting to that future state, however, requires commitment from management, buy-in from employees, a clear focus on systems and how they operate, and a willingness to change processes and perceptions.

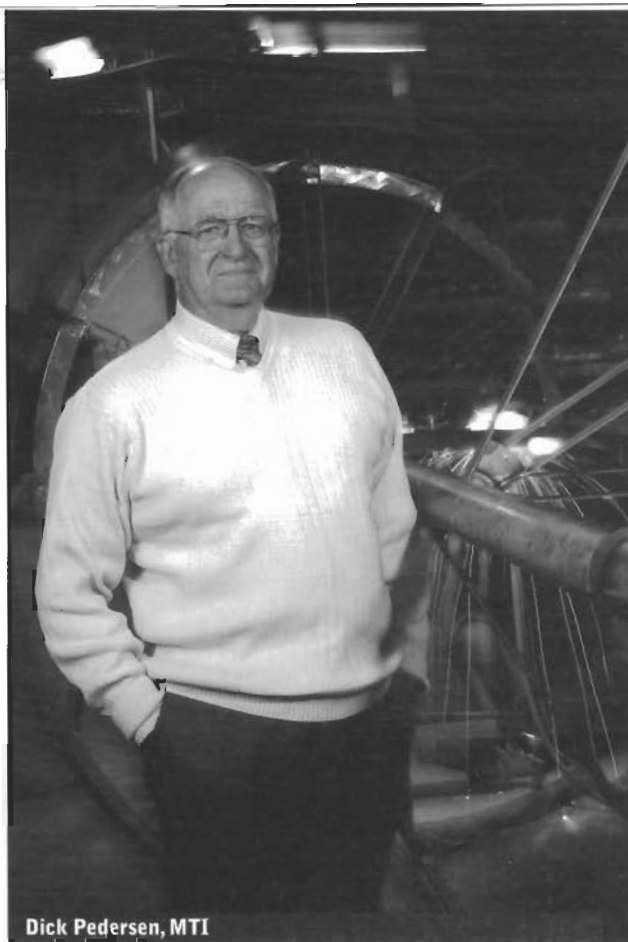
Because the value stream map identifies areas for improvement, the next step in a lean transformation is to conduct continuous improvement events on processes and systems that seem most ripe for gains. These events involve a small group of employees examining a process in detail and developing better ways to do it. The

improvements may be ways to reduce the time it takes for a process or to improve quality and reduce errors. "A lot of what lean is about is a structured way to focus attention, quantify information, and place deadlines on common sense" practices, says Terry Driscoll, president of Zumbrota-based Custom Iron Inc., which conducted a lean office project in 2003. (See "Off the Map," on page 27.)

"Lean in the office works the same as other lean programs," says MTI's Pedersen. "You have to make that future state be the present state." To do that, employees must understand and buy into the purposes of the lean transformation. "Management needs to be very clear up front about expectations," says MTI's Ahlquist, "and also about what they are going to do as they free up people by being more efficient—whether that's to grow sales or develop new products. One of the key goals of lean is to get people involved. Employees have to be motivated and educated."

Keyte recommends that, as work is realigned, management should set the overall goals but give the specifics of how the work will be done over to those closest to the process. Employees should "own the details," he says.

Lean office processes can significantly change how work gets done. In addition to implementing timetables or standardizing processes, office employees may be moved away from a central office to the area where their work is done: Engineers get cubicles on the manufacturing floor or shipping clerks are moved to the dock. Workers can be assigned new tasks, teams can be formed for particular projects—such as a team to handle custom orders—and tasks can be combined. And processes that do not add value can be eliminated. "The goal is to act more like a system instead of a bunch of independent actors," says Keyte.



Dick Pedersen, MTI

“When you do the lean office process right and with the right company, it has an immediate impact.”

Depending on a company's size and complexity, a lean office process can take from six to 18 months or longer. For many firms, the results can be dramatic. A lean office project done at Harmony Enterprises Inc., a Harmony-based manufacturer of trash balers and

compactors, allowed the company to take advantage of a new market for custom compactors and improved communication in the office (see "Harmonic Convergence," page 28). A large manufacturing company that Keyte worked with found that after streamlining some of its engineering department's processes, it freed up time to allow several engineers to focus on new product development, something they had not done for years. Other companies found ways to save money on outsourced legal services, purchasing and other front office functions.

Says Pedersen: "When you do the lean office process right and with the right company, it has an immediate impact." ■

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DANGER SIGNALS

What's holding up work in your office? Consider these four culprits.

[1] Information hoarders. Playing it close to the vest is great in poker and international intrigue, not the front office. Most information should be accessible to those who need it and processes should be clear and understandable.

[2] Batching. What may be efficient for one worker—like waiting until he or she has a pile of invoices before processing and sending any of them out—may not be good for cash flow. Lean office projects often identify delays resulting from batching.

[3] Duplication. When more than one person is handling a piece of paper or going to a computer screen for information, the question to ask is: What is that duplication of effort adding?

[4] Technophobes. With technology changing so quickly, some workers feel overwhelmed and may be covertly working with outdated technology or programs. —M.L.S.