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CIO Corner

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Lean: More than a Shop-Floor Fad

Tom Costello, *UpStreme*

When most business or IT executives hear the term “Lean,” they immediately think of shop-floor-centric initiatives limited to manufacturing. However, a deeper look at Lean principles reveals opportunities for organizations to optimize their operations, including IT.

At its most basic form, Lean focuses on processes in an organization that add value for which a customer will pay. It advocates removing all extraneous processes that don’t directly contribute to that value stream. I recently met with Larry Miller, author of *Lean Culture: A Leadership Guide* (LM Miller Publishing, 2011), to discuss not only how IT can support Lean efforts but also how the Lean philosophy can help CIOs optimize IT operations.

Although executives and business leaders are Miller’s target audience, IT analysts, relationship managers, business liaisons, change-management teams, and other IT players will quickly spot how the described approach fits

in with IT practices. Given that today’s CIOs have evolved from simple service providers into partners in business-strategy definition and execution, these processes should be useful with or without a formal Lean initiative.

The Lean Approach

From an historical perspective, Lean is the adaptation and culmination of a long list of efforts aimed in improving organizational or production performance. Such efforts have focused on processes and culture and include philosophies, researchers, and tools ranging from Deming and Herzberg time-motion studies to the Total Quality Management approach, team behavioral sciences and rewards systems, the Six-Sigma strategy, and the Toyota Production Systems philosophy. Some of these were narrow in their focus, while others lacked the ability to be easily applied to a variety of work settings.

However, Lean isn’t a one-size-fits-all approach, so you can’t point to any given firm or industry and say “that’s the Lean model.”

Rather, in *Lean Culture* (and its accompanying handbook, *Lean Team Management*), Miller focuses on the importance of a total system solution that addresses culture as part of a holistic process-improvement effort. You can’t view Lean as merely a collection of tools, because tools alone never create change. Lean requires having the organization make a broad commitment to the collection of tools, methods, approaches, and cultural change in order to adopt better habits for the long term.

How IT Aids Business Lean

Lean looks at core processes that add value for the customer, so IT applications, data, and infrastructure invariably touch or drive those business processes. IT people often say, “We know the business better than our business people.” Wrong. IT knows the systems better than the business. So whether these processes are being examined by Lean or IT teams, there’s a balance between stating “what is” versus “what is necessary.” IT teams must work hard to

(continued on p. 2)

break that view of “normalcy” and work with the business to best define the valuable elements of each process.

The key tenants of any improvement process are defining baseline metrics, setting target goals, and constantly reevaluating progress against those goals. IT’s role is often limited to creating reports to feed these steps. IT analysts, relationship managers, and data experts must be precise in their efforts to ensure everyone understands the definitions used to create the data, to synchronize the data when used for reporting, and to capture (in the Lean spirit) only essential data.

The greatest challenge to IT organizations when assisting Lean initiatives being run by the business is responsiveness. Having appropriate resources to provide agile responses and actions is critical to keeping momentum on the Lean team. This responsiveness can’t be limited to the Lean initiative but must become a standing capability for the IT team going forward.

How Lean Aids IT

Miller points out that IT is an enabler of the core work process, so IT managers must view those who work on the line—doing the work that customers pay for—as their own customers. Lean thinking is based on the idea that there’s a chain of customers throughout the organization, and each team defines the customer requirements for the next team (receiving work). This principle applies equally to the enabling function of IT. Too often IT managers have a “we know best” attitude that blinds them to the actual needs of those doing the core work.

Even if your organization is not executing a Lean initiative on the business side, IT shops can use the same philosophies to optimize internal IT operations and

functions. Too often IT shops have onerous processes for everything from setting up new users to software requests, project initiative requests, customer trouble tickets, and project tracking. How many of those processes have overhead that cause delay or confusion or are just unnecessary? Some of the processes I’ve named span outside of IT, but many are internally created, owned, and controlled—and are ripe for improvement.

But think beyond forms and processes. How much data is the organization collecting that simply isn’t used? How much data is retained or archived? How many systems are running that add little or no value? How many duplicate or redundant systems exist across your organization? These systems have faded into background noise or are considered “untouchable” for a variety of reasons, yet their value (if quantified) would be low or questionable. An IT-centric Lean effort could shine a spotlight on these systems for a more thorough review and could result in significant savings for the enterprise.

Changing the Culture

Regardless of whether you attempt to “lean out” your IT processes, you need to understand IT’s role in Lean efforts elsewhere in your organization. Any IT team member who interacts with the business should be versed in Lean nomenclature, concepts, and tools. Lean isn’t just a temporary project with a start-and-end date—it involves a deep organizational change in culture. And like it or not, IT is typically seen as the change agent in most organizations.

Some IT shops have even been visionary enough to create change-management teams and have been rewarded with higher success rates on IT projects. This is where Miller’s background in the

behavioral aspects of high-performing organizations helps him identify a key differentiator; the greatest impact from any Lean effort will come through focusing on the behavioral aspects of change. Miller refers to these as “the five S’s of culture.”

Structure refers to the manner in which an organization evolves over time and how it typically hinders effective process management. This concept of organizational evolution comes from Miller’s prior work (*Barbarians to Bureaucrats*, Fawcett Columbine, 1989).

Systems refers to the disciplines within an organization that make it function (hiring, training, onboarding new employees, financial, and so on) and how misalignment of these functions impedes progress.

Skills includes human competence in both technical and people-oriented capabilities, allowing people to function together.

Style is the behavior by which an organization conveys its values, principles, judgments, and priorities.


Symbols are the ritualistic things done in an organization that can create unity or division—such as offices versus cubicles or open versus reserved parking.

No single department in an organization owns any of the five S’s, and meaningful change will require an enterprise-wide commitment. Each department, including IT, must do its part to foster change. Although the value stream in each organization will differ—according to the market, unnecessary baggage from the past, and the myriad of IT systems supporting and feeding their habits—CIOs will find themselves at the epicenter of change identified through Lean efforts.

You might not be comfortable with everything Larry Miller has to say. Miller insists that the


leaders of organizations—including the CIO—must model the behavior they expect of others. If your own team isn't functioning well, solving problems, keeping score, and eliminating waste, how can you expect the same of others? He places responsibility squarely on the leader of the organization—saying you must change yourself if you are to change others—and offers specific guidance on exactly how to do that.

IT executives understand that their responsibility goes beyond “keeping the systems working” and includes enabling the organization to derive value. Lean principles won't necessarily create a silver bullet to cure all ills, but they can help CIOs and IT

teams meet organizational objectives. Whether supporting a business Lean initiative or using Lean principles to optimize IT itself, I think you'll find that Lean is more than just a shop-floor fad. 

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