

Lean Manufacturing Visionary Jim Womack on Frontiers of Lean Thinking

May 4, 2005

Hosted by



**Material
Handling**
MANAGEMENT

Sponsored by

Microsoft
*Business
Solutions*



**Material
Handling**
M A N A G E M E N T

Today's webcast is sponsored by
Microsoft Business Solutions, supplier of manufacturing
solutions to mid-market and enterprise organizations

Microsoft
*Business
Solutions*



How this webcast will work

- **Questions**
 - Box in lower left corner
 - Ask them as they occur to you
- **Slides**
 - Enlarge
 - Download/print
- **Volume control**
 - Can be adjusted within Windows Media Player and RealPlayer; or
 - Adjust the master sound control on your system (in the Control Panel)
- **Disable any pop-up blocking software**
- **Please respond to the feedback form at the end of the event**
- **Need help?**
<http://webcast.on24.com/clients/help/index.html>

Five Principles of Lean Thinking

- Specify value from the standpoint of the customer.
- Identify the value stream providing the value and remove wasted steps.
- Create flow between the remaining steps.
- At the pull of the customer.
- In pursuit of perfection.

Lean Thinking in Action

Process-focused management:

- Focus on the process by which value is created (the value stream), not organizations and assets.

Note: A process is a series of steps that must be performed properly in the proper sequence at the proper time to create value for a customer.

Lean Thinking in Action

- Specify the purpose of the process.
- Determine the current state of the process.
- Envision a better future state for the process.
- Discover how the people touching the process can sustain and improve the process.

**Process-focused management = Purpose,
process, people.**

In Search of the Perfect Process

Let us suppose that we have correctly specified the purpose.

How do we progress toward a perfect process?

Features of the Perfect Process

One in which every step is:

- **Valuable** (no muda: Obsession of Ford & Ohno)
- **Capable** (gives a good result every time: the starting point of Six Sigma)
- **Available** (works when it needs to work: the starting point of TPM)
- **Adequate** (no bottlenecks: TOC and TPS)
- **Flexible** (able to shift rapidly from one product to the next, and scalable: TPS)

Features of the Perfect Process

One in which the steps are connected by:

- **Flow** (so that one step leads immediately to the next: A core concern of Henry Ford, as transformed by TPS)
- **Pull** (so that steps are only performed at the need of the customer: A core concern of TPS)
- **Leveling** (so that only true demand is transmitted: A core concern of TPS in the form of heijunka)

In Search of the Perfect Process

Whether we are from a Six Sigma or TQM or TPM or TOC or BPR or TPS background, we are all in search of the perfect process.

Our differences, including differences within the TPS community, are how we frame the problem and how we decide what to do in what order. (That is: We sometimes differ on the best process for achieving the perfect process!)

Lean thinking in summary: The right purpose supported by the perfect process supported by everyone who touches the process.

Where Are We?

- **Widely attempted in North America in production operations for high-volume, low-variety products. Some spectacular successes.**
- **Value stream focus now widely accepted along with flow, flexibility, and pull.**
- **Less progress on capability & availability (= stability in Toyota speak), adequacy, and leveling.**
- **Breakthrough examples of extended value stream analysis with suppliers; hardly any examples of total value stream transformations.**
- **Still waiting for company-wide breakthroughs in lean product development.**

Where Are We Going?

- **Frightful growth of interest in applying “lean” to everything!**
- ✓ **Low-volume, high-variety manufacturing.**
- ✓ **Business processes of every type: internal like claims processing in insurance; external like help desks in computers.**
- ✓ **Healthcare.**
- ✓ **Maintenance and overhaul.**
- ✓ **Construction.**
- ✓ **Retail, including replenishment.**
- **Now in every region: Leanest operations I’ve seen recently are in India followed by Mexico!**

Why the Interest?

- **Toyota marching from victory to victory in every region.**
- **Other trend-setter companies like GE now on board.**
- **Conditions driving GE now driving whole economy:**
 - ✓ **Need to extract cash from inventory for acquisitions.**
 - ✓ **Need to generate internal growth by capturing share, given the lack of growth technologies.**
 - ✓ **Need to take out cost: healthcare and military.**

What Do We Need to Succeed?

No one wants “lean” to be the next “program”, because all programs fail!

What we need instead:

- ✓ **Complete lean knowledge in process improvement groups: muda identification, capability, availability, adequacy, flexibility, flow, pull, and leveling! (Today most only understand tools: Value stream maps, 5S, set-up reduction, poka-yoke, etc. Necessary but not sufficient!)**

What Do We Need to Succeed?

- **Someone responsible for every process, with a “plan for every process”. (The Toyota Chief Engineer concept applied to every process!)**
- **A plan for every person touching the process, which supports the needs of the process.**
- **Education of senior managers in process thinking as a compliment to strategic thinking and financial thinking.**
- **A new look at customer purpose.**

A New Look at Customer Purpose

Start with a simple question: Do customers want a product or a solution to their problem?

Most producers currently seek to offer brilliant objects in isolation rather than solutions.

But if the purpose is wrong, no process can be right!

What can be done?

Hint: Consumption is a process, just like production.

Look at the consumer's consumption process.

Today's Consumption Process

- **Doesn't solve problems completely.**
- **Wastes consumer's time.**
- **Doesn't deliver the right value.**
- **Doesn't provide value at the right place.**
- **Doesn't provide value at the right time.**
- **Doesn't provide many desired options at all.**
- **Doesn't solve complete problem permanently.**

What can be done?

Treat Consumption as a Process

- **Draw a current-state map of what the consumer actually must do to solve a problem.**
- **Envision a future-state process with only the steps consumers would need to perform to solve their problem completely with no waste of time, getting exactly what they want where they want when they want.**

Treat Provision as a Process

- **Draw a current-state map of the provision process.**
- **Ask how many of the steps are valuable, capable, available, adequate, flexible, flowing, pulled and leveled.**
- **Envision a future-state map of the provision process that solves the customer's problem, meeting the customer criteria described on the previous slide, without wasting the providers time and resources.**

Lean Solutions

- **Solve the customer's problem while reducing the provider's costs.**

Remember: Quality is free; variety is not free. Lean solutions are free and are what many customers really want rather than more product variety!

- **Truly, the frontier of lean thinking.**

Question and Answer Session

Hear Jim Womack speak about lean consumption in more detail at **IndustryWeek's SMART/mfg 2005** senior executive conference, Sept. 19-21 in Bloomingdale (Chicago), IL. Learn more at www.IWsmartmfg.com

Lean consumption story from the Lean Enterprise Institute:

Download a story about lean consumption, the breakthrough idea in *Lean Solutions*, the new book due this fall from Womack and Jones:

www.lean.org/Community/Resources/ThinkersCorner.cfm

Lean webcast on June 7 with Microsoft Business Solutions:

Hear directly from Microsoft and Certified Partner Avanade as they explore implementing Lean principles using Microsoft Business Solutions. Register at:

<http://go.microsoft.com/fwlink/?LinkId=47186>

