

The Second P in LPPD

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lppd  Lean Product &
Process Development

“Lean Production” in the 1990s

- A term introduced in 1987.
- Popularized in *The Machine That Changed the World* in 1990.
- What most people heard was:
 - ✓ Factories making products with fewer defects, shorter through-put times, and lower costs by application of lean manufacturing methods.

What We Meant Was

- An interlocking set of ideas and methods for:
 - ✓ Lean product development
 - ✓ Lean supplier development and management
 - ✓ Lean customer support
 - ✓ Lean fulfillment, from order to delivery
 - ✓ Lean management (to supplant Modern Management)
- To be applied to every value creating activity in every industry.

“Lean Product and Process Development” > 2008

What people heard, when this phrase was introduced in Al Ward’s book, was “lean product development”.

- ✓ The ideas and methods needed for lean product design.

What we (or at least I) meant was “lean product and process development.”

- ✓ The ideas and methods needed to create a lean product design delivered to the customer through a lean fulfillment process (from order to delivery and sometimes with continuing support through the use cycle.)

A Strange Situation

The LPPD community has worked hard to popularize a great set of ideas but has largely restricted its efforts to a subset of the total development problem:

- ✓ Most lean development teams would surely not think of developing a new product exactly like the previous product.
- ✓ But most seemingly do not think it odd to launch a new “lean” product through the same, not-at-all-lean fulfillment process their organization has used for previous products.

The Consequence

- ✓ A loss of feedback about new product designs, based on alternative, lean designs for the fulfillment process (with less capex, less human effort, fewer defects and less rework, shorter lead times, etc.)
- ✓ A splendid business opportunity for lean process consultants to start doing “kaizen” (= “rework”) on faulty fulfillment processes soon after the launch of “lean” products!

(More generally, does anyone else find it strange the that the great bulk of the work of the Lean Community in fulfillment has been laboriously redesigning production processes that should never have been launched into production to begin with?)

What Can We Do?

- Insist in the LPPD community that all new products be developed with a lean fulfillment process.
- Insist that we do product and process development simultaneously (and concurrently), with the manufacturing, industrial, and logistics engineers in the obeya room.
- Facilitate this by reaching agreement on the methods, principles, and fundamental beliefs of lean process design, through dialogue across the enterprise.
- Repurpose Toyota's "model line" concept to be proactive!

A Special Problem

Products are individual – we expect them to be different within the same organization, perhaps even designed with different philosophies and methods.

Fulfillment processes are often “corporate standard” for use with every product.

As a result, a demand from a development team to change the fulfillment process seems both onerous and threatening to everyone from sales to PC&L to purchasing.

Senior support is therefore needed – maybe a hoshin project (one of the few priorities) with an A3 to gain alignment?

Principles of Lean Process Design

Similar to those of lean product design:

- ✓ Chief engineer to lead the process of process design.
- ✓ System concept paper to gain agreement on the problems with traditional process development and to identify the potential of lean process development.
- ✓ Concurrent experiments with alternative design solutions.
- ✓ Trade-off analysis to create a knowledge base on design choices.
- ✓ Process obeya as part of the larger obeya for total projects.

(With thanks to Matt Zayko & Eric Ethington for these points.)

My Hope for Next Year

- The presentations will include examples of lean product and process development.
- Reported by someone(s) in this room today.
- For the benefit of everyone in the LPPD community.