



Lean Thinking

Summary notes from book the book authored by James Womack and Daniel Jones
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- Lean Thinking is a way to do more with less and less, while providing customers what they want - when they want.
- Starting point of lean thinking is to understand value as defined by the ultimate customer.
- Do you look at your product or service through the eyes of the customer?
- Paradigm problem: Most producers want to make what they are already making and customers only know how to ask for a variation of what they are already getting.
- Value is often seen in light of the producer's needs, not the customer's.
- Rethink value: accept the challenge of redefinition. To find more customers and build sales quickly, find their needs as quickly as possible.
- Look at what you do as part of an entire value system. Then you can make changes that exert all energies toward creating value.
- Value stream is the set of actions to turn raw material into goods or services needed by the customer.
- Stop thinking of the aggregate of activities and begin looking at those activities required to produce and how they interact. Challenge those activities not in concert to optimize value to the customer.
- An optimized value stream is the irreducible minimum set of activities needed to design, order and make product in a continuous smooth flowing process.
- Muda is the Japanese term for waste or non-value added activities. We tend to accept waste as part of doing business. Eight wastes are defined as over-production, inventory, transportation, motion, waiting, excess processing, defects and underutilizing people's talents.
- To envision flow value – look at activities and times (cycle times and lead-times) related to producing the service or activity.
- What percentage of time is the value stream flowing vs. idle?
- Flow thinking is counterintuitive to a functional thinker.

- In a lean system – all its moving parts are transparent so that suppliers, employees, and distributors see everything. It is easier to create value when you see all the moving parts.
- It cannot be stressed too much. Make your system transparent to all. How it flows, how it can be crippled, and what is its status?
- A lean system's eyes are those of its workforce - talking constantly about fixing problems and implementing improvements. Every individual can identify production status at all times.
- When you've fixed something, fix it again – continuous improvement.
- The more inventory you have, the less likely you are going to have the specific parts you need.
- In a lean system, customers pull products from producers as they are needed. Being able to flex to meet shifting needs is key.
- Pull means no one upstream should produce a good or service until customer downstream asks for it – pull one, make one, move one.
- Remove your staffing anchor draggers (usually 10%)
- Two steps forward, one step back is OK. No steps forward is Not OK.
- Convince your suppliers and customers to take these same steps. Their success is your success.
- Accounting systems must shift along with your lean production thinking.
- Set prices in declining targets and quality reliability at increasing goals so it makes it impossible for the staff, suppliers and customers to relax.
- Lean is not so much about cost reduction, as it is about reducing time to market, shortening lead-times and providing impeccable customer service.
- Top-down leadership is required to support bottom-up initiatives.
- America must overcome the “every firm for itself” mentality