

## Video: A Detailed First Look at Lean's Building Blocks

Okay, back to business. Let's delve into Lean thinking.

Lean is a term used to describe a process of analysis and creative problem solving. Many of its tools and techniques are derived from the manufacturing world and were blended into a specific methodology by upper level Toyota managers. Lean shifts an organization's focus to creating value for the consumer by shortening production cycles, eliminating waste, and emphasizing efficiency. Employed the world over by business, health care, and government organizations, Lean's principles and practices can revolutionize the way an organization operates.

So, how exactly is Lean defined?

Lean is a systematic approach used to identify and eliminate wasteful activities within an organization through continuous improvement by finding ways to flow product at the true demand of the customer.

Wow, for a relatively short statement, that has a lot of different elements. Let's break it down and examine the parts.

Lean is a systematic approach used to identify and eliminate wasteful activities within an organization...

Waste is considered anything that doesn't add value to a good or service in the eyes of a consumer. But when exactly is Value-Added to a product?

Imagine a customer looking over your shoulder while you work. From their point of view, what actions you perform would they find valuable? They would probably only find value in actions that somehow change or enhance the finished product. Would they value you putting on protective coverings? Probably not as they aren't getting anything tangible in return. Would they value you cleaning and checking the equipment you are going to use to produce the product? Probably not as they aren't getting anything tangible in return would they value you measuring and marking before you cut or otherwise modify a product or a piece of a product? Probably not. They would only

find value in the cut or modification itself. Would they value you storing the good in a warehouse before you sell it to them? Definitely not. They would consider those extra costs, your expense of doing business.

Fujio Cho, chairman of Toyota Motor Corporation defines waste as anything other than the minimum amount of equipment, materials, parts, space, and workers' time, which are absolutely necessary to add value to a product or service.

A customer actually finds value in a small percentage of the work you complete, typically only around 10%. This doesn't mean the other work you are doing doesn't have value to you, it's just give them anything tangible. The customer really only wants to pay for work in which they find value, and from their point of view, that's what they are doing. If a customer buys a computer, from their point of view, they are buying the machine and the work it took to tangibly make that machine. They don't factor in all the other costs associated with getting the machine into their hands. If you look at all work as work the customer would be willing to pay for and which work the customer wouldn't be willing to pay for, it is easy to distinguish between Value-Added and non Value-Added activities. What are some of the actions a customer is willing to pay for?

If you're a welder, the customer pays you when the electrode is melting metal. All of the activity before and after that single moment in time does not add tangible value to the finished product or service and the customer does not want to pay for it. Think of yourself as the customer, would you want to pay for a welder to gather parts or would you consider that his cost of doing business?

Look at the service industry. If you're a family doctor, in the eyes of the customer, they are paying you for the you spend with them face to face. In their minds, they are not paying you or your staff for writing chart notes, researching new medication, cleaning your instrument, etc.

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Stop and think a moment about all the activities you do as part of your day-to-day duties and really assess which ones add tangible value to the final product or service. Figure what percentage of your workday you are actually generating value from the customer's point of view. Obviously, the value-generating steps are dependant on the non value-generating steps, but can some of the procedures that do not add value be condensed or eliminated altogether?

How can we work smarter to not only shorten production cycles and free up more time, but also save on the cost of doing unnecessary work?

...through continuous improvement...

In Lean philosophy, continuous improvement is called kaizen, a Japanese word that literally translated means "change for the better."

Lean practitioners are never satisfied with status quo, always believing there is a new, possibly better way of seeing. By staying diligent, they are always looking for ways to improve processes and rethink tasks. Small, incremental improvements can lead to revolutionary changes overtime.

Next time you perform a task, even a small one, pay attention to the details. Is there something you can change about the process that will make your job easier or faster? Select simple, obvious changes, over complicated ones. Use the visualization technique to walk through your daily activities and comb them for waste.

...by finding ways to flow product...

Flow is an important concept in Lean. There are many facets and applications of flow that we will discuss in later videos, but for now, let's simply discuss what flow means in the manufacturing world. After all, Lean thinking got its start on the factory floor.

Unlike mass production's batch and queue processing where numerous copies of one piece of a product are manufactured at the same time and then are stored together in a group until the next stage in the process is ready for them...

...Lean flow is known for one-piece flow. Instead of several pieces being mobbed along the production line together, just one piece at a time moves through.

Ideally this piece moves from process to process continuously, never having to wait in a queue to go through the next process. One-piece flow considerably speeds up manufacturing processes, cuts down on storage and transportation work, and helps eliminate defects and damage that occur from storage and extra transportation.

Flow will be explained visually, in detail in the following airplane exercise video.

...at the true demand of the customer...

Instead of mass producing products and creating inventory, Lean practitioners create only what is ordered by a customer. In this way, the customer pulls the product from the product. The producer creates only what is needed and transports it straight to the customer. They ship more frequently, but there is little to no inventory so they are actually saving resources.

The Lean organization does not incur costs of storage, transportation to and from storage facilities, additional maintenance, and other resources to track and manage these extra steps caused by inventory.

Also, product loss due to damage in transport and storage is greatly reduced.

Allowing consumer demand to pull a product from your organization provides a more balanced approach to supply and demand than the typical "push" scenario.

A push system is unfortunately a common problem



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in today's economy. A company, mistakenly believing they will save money, manufactures larger batches of products and stores them, using aggressive marketing techniques to try and empty their warehouses.

This way of doing business is a costly gamble that has brought down to many organizations to financial hardship.

That is the definition of Lean, but to work properly it takes constant practice.

Lean practitioners are diligent and tireless. They are constantly examining their work processes to find room for improvement. To quote an old cliché, "shoot for the moon. Even if you miss, you'll land among the stars." With alignment to our customer as a benchmark, we will never settle for less than our very best.

To summarize: Lean is a way of thinking, a way of approaching management that promotes efficiency by reducing inventory, de-cluttering the work area, eliminating wait times and queuing, and which focuses all of its energies on giving added value to the customer.

To a Lean manager, getting the customer what he or she needs right when they need it is of the utmost importance. But how is such a feat achieved?

Stay tuned to find out. [u](#)