

THE STORY OF LEAN AND WHY IT SHOULD BE APPLIED TO ALL OF THE SUPPLY CHAIN

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Lean Manufacturing focuses on optimising processes and eliminating waste to cut costs and deliver what customers want and are willing to pay for. With the lean philosophy, you enjoy benefits of continuous improvement. Rather than making rapid, irregular changes that disrupt the workplace, create smaller and sustainable changes people who use the processes, equipment, and materials will take forward.

Henry Ford, supporter of mass production, was one of the first people to develop the ideas behind lean manufacturing. He used the idea of “continuous flow” on the Model T automobile assembly line, where production standards were extremely tight and each process fitted together perfectly, resulting in little waste. His assembly lines and processes didn’t easily allow for modifications or changes to the end product – a Model T assembly line produced only the Model T. This push process, where Ford set the production level, resulted in large inventories of unsold automobile and ultimately resulted in wasted money instead of a “pull” process led by consumer demand.

The inflexibility of Ford’s assembly line paved the way for Taiichi Ohno of Toyota who developed the Toyota Production System (TPS), which incorporated just in time manufacturing processes to increase efficiency. The TPS was created as a means to compete with the US automotive industry through developing and implementing a variety of low-cost improvements. Toyota used this process successfully and as a result, emerged as one the most profitable manufacturing companies in the world.

The lean philosophy is mainly derived from the Toyota Production System. Lean has had a number of names over the years, developed primarily from the Toyota Production System (TPS) it has been called World Class Manufacturing (WCM), Continuous Flow Manufacturing, and Stock-less production to name a few. Today you will even hear Lean Sigma and Agile Manufacturing.

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To locate efficiencies, lean manufacturing adopts a customer-value focus, asking “What is the customer willing to pay for?” Customers want value, and they’ll pay only if their needs are met.

The core idea of lean manufacturing is actually quite simple, relentlessly work on eliminating waste from the manufacturing process. Waste is anything that doesn’t add value to the end product. There’s no need to reduce quality – the cuts are a result of finding better, more efficient ways of accomplishing the same tasks. There are eight categories* of waste that you should monitor: (*the first seven sources of waste were originally outlined in the Toyota Production System; lean manufacturing often includes the eighth):

- Overproduction – Are you producing more than consumers demand?
- Waiting – How much lag time is there between production steps?
- Inventory (work in progress) – Are your supply levels and work in progress inventories too high?
- Transportation – Do you move materials efficiently?
- Over-processing – Do you work on the product too many times, or otherwise work inefficiently?
- Motion – Do people and equipment move between tasks efficiently?
- Defects – How much time do you spend finding and fixing production mistakes?
- Workforce – Do you use workers efficiently?



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Wholesalers, manufacturers, retailers, distributors, suppliers, and every party involved in the supply chain feel the pressure to reduce and balance cost, time and inventory-to be lean. This is true with domestic supply chains; but it is especially true with global supply chains. The Lean concept can also be applied to offices and other work environments, not just to manufacturing plants, simply relate words like inventory, customers, and production to data, documents, knowledge, services, etc.

Lean Logistics, simply put, is described as a way to recognise and eliminate wasteful activities from the supply chain in order to increase product flow and speed. Organisations that incorporate lean thinking into their supply chain benefit from improved customer service and reduced environmental impact. Tracking and tracing your consignments should be a priority at every stage of its journey. Finding a logistics partner that not only provides updates, but captures data at every point in the supply chain, real-time, as it happens, isn't easy. It's even harder to find one that then analyses and interprets the data to provide the comprehensive insights needed to plan effective operations and predict network capacity.

In terms of lean logistics, you should expect your service provider to provide you with a high-level service that matches the charged price. In your supply chain, there are a number of variables that need to be taken into consideration whether it's inhouse or outsourced. All elements of the supply chain should collaborate to ensure waste is removed, resulting in a successful supply chain and revenue streams. Predicting and monitoring customer demand is a huge part of lean manufacturing as it greatly influences production and warehousing, these in turn can affect logistics.

Here at Priority Freight, our mission is to provide the fastest, most economical and time-critical global freight delivery, as your freight is our priority.

Written by Stuart Stobie

Stuart Stobie, Sales and Marketing Director at Priority Freight, has 30 years' experience within the logistics industry. He has worked in a variety of roles from general management to board level in both International and Domestic transport and has experience across sales, marketing, operations and customer service and most recently in specialised customer solutions.



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