



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35.



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DEPARTMENT OF AUTOMOBILE ENGINEERING

19AUZ405 – LEAN MANUFACTURING

IV YEAR / VII SEMESTER

Topic - Conventional Manufacturing versus Lean Manufacturing



Lean manufacturing

- Lean manufacturing is a methodology that focuses on minimizing waste within manufacturing systems while simultaneously maximizing productivity.
- Waste is seen as anything that customers do not believe adds value and are not willing to pay for. Some of the benefits of lean manufacturing can include reduced lead times, reduced operating costs and improved product quality.



Conventional Manufacturing versus Lean Manufacturing



- Manufacturing efficiency is key to the overall operational efficiency of the supply chain. Being a cost-adherent function within a business, the manufacturing industry continues to strive for higher manufacturing efficiencies to compensate for the rising costs of business.
- Traditionally, manufacturers produced by anticipating demand for their products. Stockpiling and higher inventories only added more baggage for a manufacturing business. With the advent of lean manufacturing, firms can now produce and customize products when and where needed.



Traditional Manufacturing

- Traditional manufacturing is akin to mass production. Manufacturing products at a larger scale and keeping larger stocks in inventory is the precursor of traditional manufacturing. This philosophy is driven by the economies of scale concept, where businesses produce stable product designs using non-unique technologies.
- The purpose of traditional manufacturing has been to churn out identical products without a prior understanding of customer needs. The manufacturing department produces larger quantities of similar products based on sales forecasts.



Lean Manufacturing

- Unlike traditional methods of dumping down similar products, lean manufacturing is customer-centric. Following a customer-focused business strategy, lean manufacturing allows firms to identify what each customer wants. The philosophy was first incepted in the Japanese auto manufacturing industry, where just-in-time manufacturing was pioneered.
- The purpose of lean production was to keep inventory levels low. Just-in-time is the core principle of today's lean manufacturing philosophy in that businesses only produce quantities of a product when they're ordered to minimize inventory holding costs.



- Lean production emphasizes eliminating the risk of defective products by following customer needs closely. Resultantly, you only manufacture products in the right quantity and only when customers order them. When you incorporate lean production, you follow a series of processes to minimize and eliminate any wasteful material to maintain the production level.
- The net result is total productivity improvement.



How Is Lean Manufacturing Better?

- The ultimate goal of lean manufacturing is to eliminate non-value adding operations so that the best output can be delivered. Here's why lean manufacturing is better for your business:
- **Improve Lead Times:** when you eliminate any wasteful activity, you streamline your manufacturing process. Ultimately, you get better at responding to market fluctuations resulting in fewer delays and improved lead times.
- **Improve Product Quality:** the higher the efficiency, the better the product quality because you free up resources and labor to focus on quality control and innovation.



- **Improve Employee Satisfaction:** lean production reduces workload allowing employees to focus on high-priority work. Lean manufacturing boosts employee morale with important tasks instead of assigning unnecessary tasks every day.
- **Improve Sustainability:** the lesser the waste, the better your business gets at adapting to climate and environmental challenges. You can keep value-adding operations and eliminate that which isn't adding value to your overall manufacturing processes.
- Lean manufacturing also eventually improves profitability.



- Resource Link _
<https://www.techtarget.com/searcherp/definition/lean-production#:~:text=Lean%20manufacturing%20is%20a%20methodology,not%20will%20to%20pay%20for.>



Thank You !