

CHAPTER OVERVIEW

7: Total Quality Management and Lean

Would you order a delivery pizza for dinner from a restaurant advertising delivery in 6 hours? How about a restaurant that can bring you a cold, stale pizza in only 5-minutes? To meet the consumer's needs, the pizza shop must be able to give customers the number of pizzas they want when they want it. Preparing pizzas in advance is too wasteful because most consumers are not likely to buy a stale pizza. Meanwhile, if you take too long to deliver the pizza, you will lose customers to a more responsive competitor. The concept of just-in-time focuses on making what you need to meet customer demand only when you need it. For a pizza delivery shop, that probably means a fresh pizza at the customer's door in around 30 minutes. This philosophy can apply to a range of operations, from simply washing a car to manufacturing a complex aircraft.

Similarly, the concept of lean manufacturing refers to eliminating waste in the manufacturing process. The Toyota Product System is the model for modern manufacturers that want to control waste. In this unit, we will look at seven types of waste and processes for controlling them. In addition, we will explore the origins of the "Just-in-Time" (JIT) philosophy and the use of pull systems to control inventory.

[7.1: Lean Manufacturing and Control](#)

[7.2: Five Core Principles of Lean](#)

[7.3: Just-In-Time \(JIT\) Systems](#)

[7.4: Total Quality Management](#)

7: Total Quality Management and Lean is shared under a [CC BY-NC-SA 4.0](#) license and was authored, remixed, and/or curated by Hamid Faramarzi and Mary Drane.