

1. Necessary transportation is something that adds value to a good or service like a delivery from UPS or the delivery of a pizza. Unnecessary transportation does not add any value for the final customer and adds costs and increased damage risk. For example, moving a product back and forth between warehouses due to poor inventory planning would be an example of unnecessary transportation.
2. Waiting is a form of waste, but there are cases where waiting can actually make life easier for the consumer. An inbound call center can be run more economically if the center is capable of answering all calls on the first ring. If the center has that many representatives, they will be grossly underutilized and the company (and ultimately the customer) will be paying for much idle time.
3. Lean and quality management are similar in many ways, but they have differences as well. Both have a focus on customers, continuous improvement, and employee empowerment, but at their core, there is a fundamental difference. In quality management the focus is on what is important to customers, while lean is focused on eliminating waste and improving productivity for a better use of resources.
4. A planning tool is used to forecast what will be needed in the future, while a kanban is a control mechanism that is used to control inventory in a system. Example 13.4 illustrates that the planning and completion of work center A controls the flow of the metal through the system in work center B. MRP and kanban can be used together to anticipate changes in planned order quantities and then use that plan to recalculate the number of kanbans needed.
5. A firm's suppliers could improve lean efforts by allowing the firm to hold lower stock or lowering lead times for goods. They can undermine lean efforts by requiring a firm to take all of their stock when it is finished -and they can have longer lead times that can cause firms to have a larger inventory and safety stock. In the Porsche example, Porsche took steps to fine-tune cooperation with suppliers to ensure factories received parts just when they were needed on the assembly line, a method that's been widely copied in the automotive industry. By working with their suppliers on holding stock and/or manufacturing in a JIT fashion, they were able to slim down their supply chain and inventory drastically.