

5.3 Lean production and quality management (HL)

The big picture

The previous subtopic ([Subtopic 5.2 \(/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/the-big-picture-id-39052\)](#)) focused on how products are made. This subtopic will focus on how companies ensure that they produce products efficiently and with quality. It will explore two key ideas: lean production and quality management. Lean production involves a set of strategies that reduce waste in the production process. Quality management involves a set of strategies that ensure products meet or exceed customers' expectations. Without effective quality management, production standards are likely to fall and this results in lost sales, lower revenues, higher costs and more waste. Thus, lean production and quality management are related to one another.

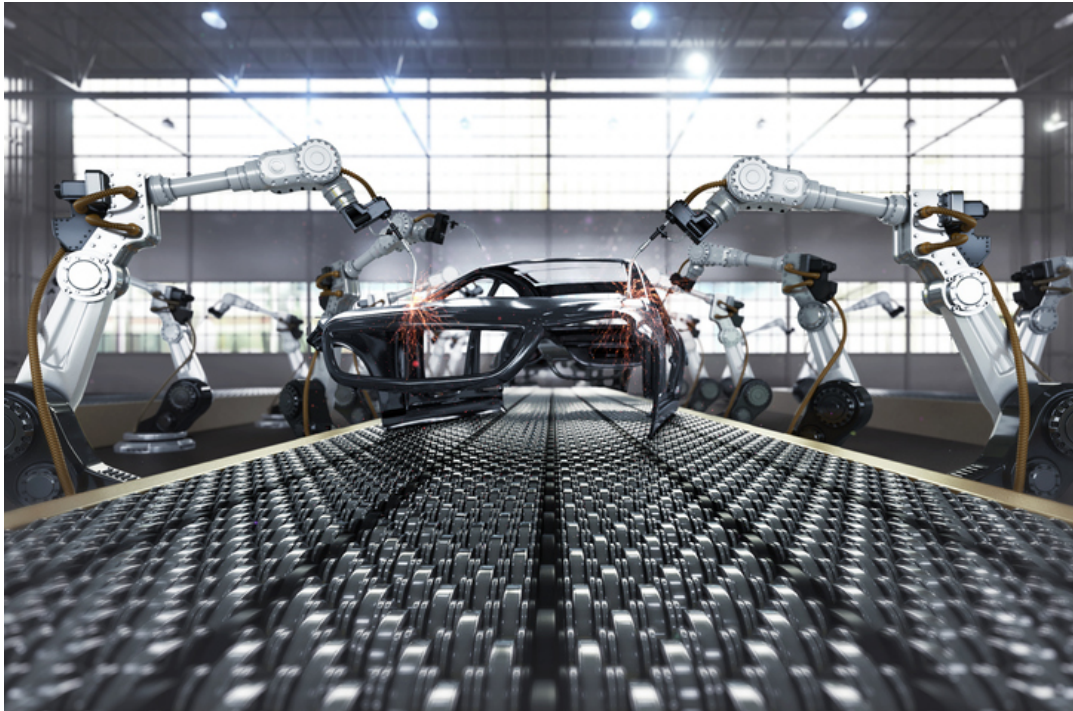


Figure 1. Many automobile manufacturers are very focused on increasing both efficiency and quality.

Credit: Yuichiro Chino, Getty Images

The automobile manufacturer Toyota is widely regarded as the global leader in lean production and quality management. It uses a production control system called the Toyota Production System (TSP) (<https://global.toyota/en/company/vision-and-philosophy/production-system/>), which involves a process called continuous improvement (kaizen). Continuous improvement is the idea that, no matter how efficient a process is, it can always be improved further to reduce waste and

increase quality. These improvements might involve reducing wasted materials, reducing wasted time or reducing defects. Toyota holds a series of ongoing, regular meetings in which staff discuss ideas for improving product quality. The company also carries out a thorough examination of all defective parts that are returned to the factory from customers. These inspections aim to discover and eliminate the root cause of each problem so that it does not occur again.

Toyota also seeks to treat stakeholders with respect, and systems are put in place to ensure stakeholders' needs are met. For example, workflows are designed to avoid putting too much stress on employees, allowing everyone time to complete their jobs. Toyota also aims to build long-term relationships with its suppliers and work in partnership with them, helping suppliers to improve quality and streamline their own production systems.

All of this has helped Toyota become the largest automobile manufacturer in the world, and to retain its lead through the COVID-19 pandemic.

Some of Toyota's strategies for lean production and quality management are shown in **Video 1**. While you watch the video, consider what actions the company takes to reduce waste. How is product quality ensured?

Toyota Material Handling - Applying the Toyota Production Sys



Video 1. How Toyota implements lean production.

Concept

Creativity and sustainability

Creativity involves generating new ideas and considering existing ideas from new perspectives. Creativity may be evident in the use of inputs, business processes, product outputs and other solutions. The creation of ideas and solutions involves a process of synthesising and evaluating in response to surrounding changes.

Lean production and quality management both require creativity from business owners, managers and other employees. Those who work in the business can use their knowledge, skills and experience to find new ways to produce their products that reduce waste and improve quality. They can explore ideas from competitors in the industry, or apply ideas that come from different industries or even from different disciplines. Some of the best ideas in business come from those who have been able to apply novel ideas from completely different fields.