

A Profile of Toyota's Production System

Early History

Kiichiro Toyoda founded the Toyota Motor Company in 1937.¹ The company, headquartered in Toyota City, Japan, grew to a market capitalization of \$138 billion by early 2010,² number 10 on the Fortune Global 500. It was the largest car company in the world,³ having produced 8.9 million vehicles worldwide in 2008.⁴

Before founding the company, Toyoda was denied the opportunity to head his family's mechanical loom business. Looking for alternatives, he set his sights on building cars. He attracted his cousin, Eiji Toyoda, to be his understudy and partner.⁵ They were both impressed by the industrial might of US companies during the war and wanted to see them in operation. In the early 1950s, Eiji Toyoda traveled to America in order to study Ford's immense River Rouge plant just outside Detroit, Mich. He was impressed by the size of the plant but noted many inefficiencies,⁶ including large amounts of both inventory and rework to fix production mistakes.⁷ Some good did come from this trip, but it was from a visit to a Piggly Wiggly supermarket. "[T]he delegation was inspired by how the supermarket only reordered and restocked goods once they had been bought by customers."⁸ This would become the *kanban* system, part of the inventory restocking policy that would become world-renowned.

The TPS

While growing the company in Japan between 1949 and 1975, Toyota management—primarily Taiichi Ohno, Shigeo Shingo, and Eiji Toyoda⁹—worked on improving the company's logistics and production processes, especially as they related to minimizing inventory, involving employees in the process of managing their jobs, and defining the manufacturing process so that it could handle multiple products easily.¹⁰ The result of their work became known around the world as the Toyota Production System (TPS).

TPS is "an integrated socio-technical system...that comprises [Toyota's] management philosophy and practices. The TPS organizes manufacturing and logistics for the automobile manufacturer, including interaction with suppliers and customers."¹¹ It has two foundational concepts:

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