

Examining lean operations and competitive advantage in the pharmaceutical industry

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Research in the *International Journal of Services and Operations Management* has looked at the pharmaceutical industry in Jordan from the perspective of lean manufacturing practices and operations, demonstrating that a lean approach can be beneficial to costs, speed, and reliability in the industry but does not apparently affect quality or

innovation significantly.

The concept of lean operations is an approach to manufacturing that emphasizes the elimination of waste and the optimization of efficiency. It was first developed by the Toyota Motor Corporation in the 1950s and has since been adopted by many other manufacturers.

The goal of lean operations is to create value for customers while minimizing waste, such as overproduction, defects, excess inventory, unnecessary movement, waiting, over-processing, and unused talent. A number of tools and techniques are used to facilitate lean operations, such as value stream mapping, continuous flow, pull systems, standard work, visual management, error-proofing, and continuous improvement.

Abdel-Aziz Ahmad Sharabati of the Business Faculty at the Middle East University in Amman, Jordan, surveyed 116 managers from 10 of 14 Jordanian pharmaceutical manufacturing organizations on how lean operations are used in their organizations. Alongside the above findings, the work also showed that lead-time, setup time, inspection time, and delivery time were significant factors in determining a company's competitive advantage, while inventory was not.

The work suggests that similar research might be usefully carried out in other industries across Jordan and in the pharmaceutical industry in other countries to see whether the findings are more widely applicable. In an increasingly globalized world, this research could help companies recognize what needs to be done to improve their competitive edge in the face of international competition. Of course, for the [pharmaceutical industry](#) itself, any such changes in practices and [operations](#) must also comply with regulations in the industry at the national and international level.

More information: Abdel Aziz Sharabati, Lean Operations and

Competitive Advantage in the Pharmaceutical Industry, *International Journal of Services and Operations Management* (2023). [DOI: 10.1504/IJSOM.2021.10038296](https://doi.org/10.1504/IJSOM.2021.10038296)

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