

Just-in-time, solving key challenges in logistics

The complexity of supply-chains is increasing drastically in recent years. Customers expect same day or overnight shipping of products ordered online. To provide that and reduce the risks associated with high inventories, companies need to rethink their entire supply chain. The just-in-time (JIT) system is one possible solution. Developed in Japan in the 1930's the system soon captured the world. Yet, the challenges created in the modern society force companies to modernize JIT. The following article describes the concept of JIT and its potential to solve modern day challenges.

Hardly any other production concept has gained as much public attention as the just-in-time production system. Though it is a production concept, logistics play a key role in creating a just-in-time production system. Just-in-time production has become the norm in almost every large producing company. Recent developments in technology like the internet of things (IoT) and the created opportunities for data mining allowed companies to further improve their systems. Grasping the concept of just-in-time production and monitoring key trends is detrimental for any company looking to improve its operational efficiency.

Before looking at recent developments affecting just-in-time production, the concept itself must be briefly introduced. Just-in-time production is part of the "Toyota Production System" and was first used by the company in 1938 (Parashar, 2016). It allowed Toyota to compete in the, by US-American car manufacturers dominated, US-market. JIT production aims to decrease unnecessary storage of unneeded products ("waste") and make the overall supply-chain leaner (Cyphus, 2015). Achieving this "leanness" allows producing companies to drastically reduce storage costs and thus overall production costs. The costs saved can be either transferred to the customer in form of lower prices or used to increase profits for the company (Calderone, 2017). Because of the large potentials offered by the just-in-time productions system, many companies started to copy Toyota's approach and the system soon became the norm in many industries. Yet, despite the advantages, the system has its disadvantages which must be kept in check. One of the largest ones is the risk of running out of parts because of logistics problems. For a long time, companies were reliant on their past experiences and predictions made by their suppliers about realistic time schedules. The internet of things can solve many of these problems. With IoT Machines and systems constantly provide and communicate data about their status, their surrounding and more (Burgess, 2018). This data can be analyzed to get real-time information about entire supply chains. Logistic departments can monitor KPI's of their supply chain in real time. This helps to monitor problems before they arise, leading to a drastically decreased risk of uncertainty. Further

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04, 7 • 68161 Mannheim • Germany

Press Contact: Claudia dos Santos (c.dossantos@occon.de)

Telephone: +49 621 5968 3262 14

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technological advancements will make this planning even more reliable with advanced algorithms finding application in sophisticated tools. Creating a more efficient supply chain will become one of many key challenges companies have to solve to beat the increasing competition resulting from advancing globalization.

If you and your company want to be ahead of the competition contact OCCON today! Our team of high-skilled logistic experts can help to solve your logistics and procurement related challenges. Our team members have experiences from a wide range of industries and are looking forward to working with you. At OCCON staying up to date is very important to allow our customers to capitalize from the latest trends in technology.



Parashar, J. (2016). Why Toyota's Just-in-Time method Is Critical to Its Success. Available at: <https://marketrealist.com/2016/05/toyotas-just-time-method-critical-success/#:~:text=Using%20JIT%2C%20Toyota%20produces%20its,vehicles%20are%20received%20on%20time.&text=This%20allows%20Toyota%20to%20minimize%20its%20inventory%20of%20vehicle%20parts.> [last accessed: 07.09.2020].

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About OC CON

OC CON is an independent, owner managed logistics and procurement consulting and software company with headquarters in Ludwigshafen, Germany. The service provider supports manufacturing and trading companies of various industries in transport procurement and logistics on global scale. Via their in-house-developed eProcurement platform, NOCCO a yearly spend volume of 5 bn USD is covered.

Media contact

Claudia dos Santos • Phone: +49 621 5968 3262 14 • E-Mail: presse@occon.de

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