

Planning and Executing Manufacturing Facilities for Global Supply Chains

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Abstract

In today's global market, the bar has been raised for global manufacturing industry. The ability to produce and deliver a quality product, on time and every time and at a competitive price is no longer an asset but an entry-level requirement in the global market. A well designed and executed supply chain management will help companies to become more competitive and sustainable by efficiently integrating suppliers, manufacturers, distributors, and retailers to produce and distribute goods and services while optimizing supply chain objectives.

Planning manufacturing facilities for global supply chain is a vital area of needed research for the simultaneous development of product, processes, and supply chain. We focus on the total system approach of the entire value chain. We have witnessed so much downturn in our national economy mostly due to failure of the manufacturing industry while at the same time foreign based companies are continuously expanding their manufacturing base in US. Therefore, one might assume that those companies that are flourishing are those that optimize their total value chain in order to become a fast-clockspeed company such as Zara. We describe principles, guidelines, and a framework for designing manufacturing facilities for total supply chain optimization.

Keywords

Facility planning, lean manufacturing, supply chain management

Biography

Shahram Taj is Professor and Chair of the Department of Management and Marketing at Lawrence Technological University in Michigan. He is an accomplished academician, executive consultant, and with an expertise in business model innovation, lean and sustainable operations, strategic management, production systems design, systems optimization/simulation, and supply chain management. Shahram earned his Ph.D. in Industrial Engineering and Operations Research from the University of Massachusetts (1984). He has a MS degree in Industrial Engineering from the University of Rhode Island (1980) and a BS in Applied Mathematics/Operations Research from the School of Planning and Computer Applications in Tehran (1977).