عنوان مقاله:

A Novel System Dynamics Model towards Analysis of Hybrid Make-To-Stock/Make-To-Order Production Environments

محل انتشار:

کنفرانس بین المللی مدیریت، اقتصاد و مهندسی صنایع (سال: 1394)

تعداد صفحات اصل مقاله: 14

نویسندگان:

Masoud Rabbani, - *School of Industrial Engineering, College of Engineering, University of Tehran*

Moeen Sammak Jalali

Hamed Rafiei

خلاصه مقاله:

Hybrid Make-To-Stock (MTS)/Make-To-Order (MTO) production system takes advantages of both pure MTS and MTO systems and therefore, is regarded as a valuable production system in order to respond today's market conditions such as demand uncertainty, shortage of raw materials, and high inventory holding costs. The aim of this study is to investigate such systems through covering most of the influential factors that have not been taken into account so far. Hence, a system dynamics (SD) model is proposed in this study considering three different series of workstations (MTS, MTO, and MTS/MTO) in a manufacturing firm with a continuous production line. The performance of the developed model is assessed in terms of holding costs as well as product's delivery lead-time.Moreover, this study considers the impacts of some significant, exogenous variables such as different outlays including operating expenses, holding costs, and the company's net profit. The results show the superiority of our proposed model in contrast with previous studies in a cost-oriented point of view.

کلمات کلیدی:

Production planning; Make to stock/Make to order; System dynamics; Capacity coordination; Production/Inventory environments; Order decoupling point