

The Engineering Economist >

A Journal Devoted to the Problems of Capital Investment

Volume 52, 2007 - [Issue 2](#)

347 | 7 | 0
Views | CrossRef citations to date | Altmetric

Original Articles

A Profit And Loss Analysis For Make-To-Order Versus Make-To-Stock Policy—a Supply Chain Case Study

Sameer Kumar, Daniel A. Nottestad & John F. Macklin

Pages 141-156 | Published online: 06 Jun 2007

🗨️ Cite this article 🔗 <https://doi.org/10.1080/00137910701328953>

Sample our
Economics, Finance,
Business & Industry Journals
>> [Sign in here](#) to start your access
to the latest two volumes for 14 days

📄 Full Article 📊 Figures & data 📖 References 🗨️ Citations 📊 Metrics

📄 Reprints & Permissions

Read this article

🔗 Share

Abstract

The make-to-order (MTO) or make-to-stock (MTS) decision is important for contract manufacturers supporting product supply chains. This case study provides an integrated profit and loss investment analysis for MTO versus MTS policy while also quantifying factory cost. The use of discrete-event simulation integrated with Excel provides a proactive decision support application to predict lead time and profitability of an extruded part within a manufacturing supply chain at 3M Company headquartered in Maplewood, Minnesota. The analysis presented predicts the conditions where a make-to-stock policy is better than a make-to-order policy in terms of operating income for a single SKU (product) in a large multinational manufacturing company acting as a contract manufacturer. We define an inventory to order quantity

(IOQ) ratio and use this metric with scenario analysis to maximize operating income. The IOQ ratio showcased in this study is applicable for supply chains with predictable customer demand.

[← Previous article](#)

[View issue table of contents](#)

[Next article >](#)

Notes

*Mean *SD.

Related Research Data

[Optimal Admission Control and Sequencing in a Make-to-Stock/Make-to-Order Production System](#)

Source: Operations Research

[Table A.2](#)

Source: Unknown Repository

[Financial Models and Tools for Managing Lean Manufacturing](#)

Source: Unknown Repository

[Special products and uncertainty in production/inventory systems](#)

Source: European Journal of Operational Research

[Make-to-order versus make-to-stock in a production—inventory system with general production times](#)

Source: IIE Transactions

[Make to Order or Make to Stock: Model and Application](#)

Source: Management Science

[The Impact of Adding a Make-to-Order Item to a Make-to-Stock Production System](#)

Related research

People also read

Recommended articles

Cited by
7

[Production planning system for a combination of make-to-stock and make-to-order products >](#)

H. Tsubone et al.

International Journal of Production Research

[Comparison of order-fulfilment performance in MTO and MTS systems with an inventory cost budget constraint >](#)

Xiao-Feng Shao et al.

International Journal of Production Research

Published online: 18 Jul 2011

[A review of production planning and control: the applicability of key concepts to the make-to-order industry >](#)

M. Stevenson * et al.

International Journal of Production Research

Published online: 22 Feb 2007

Information for

[Authors](#)

[R&D professionals](#)

[Editors](#)

[Librarians](#)

[Societies](#)

Opportunities

[Reprints and e-prints](#)

[Advertising solutions](#)

[Accelerated publication](#)

[Corporate access solutions](#)

Open access

[Overview](#)

[Open journals](#)

[Open Select](#)

[Dove Medical Press](#)

[F1000Research](#)

Help and information

[Help and contact](#)

[Newsroom](#)

[All journals](#)

[Books](#)

Keep up to date

Register to receive personalised research and resources by email



Sign me up



Copyright © 2026 Informa UK Limited [Privacy policy](#)

[Cookies](#) [Terms & conditions](#) [Accessibility](#)

Registered in England & Wales No. 01072954
5 Howick Place | London | SW1P 1WG



Taylor & Francis
by informa