Taylor & Francis
Online

The Engineering Economist ›
A Journal Devoted to the Problems of Capital Investment
Volume 34, 1988 - Issue 1

64 Views | 60 CrossRef citations to date | 0 Altmetric

ARTICLES

An Economic Evaluation Model for Advanced Manufacturing Systems

Chan S. Park & Young K. Son

Pages 1-26 | Published online: 29 Oct 2007

Cite this article https://doi.org/10.1080/00137918808902975

Sample our
Engineering & Technology
Journals
>> Sign in here to start your access
to the latest two volumes for 14 days

References Citations Metrics Reprints & Permissions

Read this article Share

ABSTRACT

With traditional methods of cost accounting, substantial benefits of advanced manufacturing techniques go undetected. Current accounting measures are based on the mass production of a mature product with known characteristics and a stable technology. In particular, the traditional Investment decisions in manufacturing are often based on accounting data collected for the production setting as given, where the cost structure and the uncertainty (in demand, In actual costs, or in delivery times) are assumed exogenous to the model. Recent manufacturing experience suggests, however, that these assumptions – stable product and mass production – are not valid. In Introducing advanced manufacturing technology, the firm should consider all the benefits – Improvement in productivity, quality, and flexibility – offered by the new system. This paper addresses several related Issues by Incorporating these less obvious benefits Into the conventional net present value Index so that the long-term

manufacturing performance can be measured. To this end, we formulate a multistage Investment decision model that consideres explicitly the nonconventional costs of quality, inventory, part waiting, equipment idle, and so forth. Finally, a case study is presented to demonstrate the application of the economic model developed in this paper.

Related research

People also read | Recommended articles | Cited by 60

A cost estimation model for advanced manufacturing systems

YOUNG K. SON
International Journal of Production Research
Published online: 26 Apr 2007

Information for

- Authors
- R&D professionals
- Editors
- Librarians
- Societies

Open access

- Overview
- Open journals
- Open Select
- Dove Medical Press
- F1000Research

Opportunities

- Reprints and e-prints
- Advertising solutions
- Accelerated publication
- Corporate access solutions

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