

289 Views | 23 CrossRef citations to date | 0 Altmetric

Original Articles

Optimal economic production quantity policy for randomly failing process with minimal repair, backorder and preventive maintenance


Gwo-Liang Liao

Pages 1602-1612 | Received 03 Jan 2011, Accepted 04 Dec 2011, Published online: 21 Feb 2012

Cite this article <https://doi.org/10.1080/00207721.2012.659702>

Sample our Engineering & Technology Journals

>> [Sign in here](#) to start your access to the latest two volumes for 14 days



We Care About Your Privacy

We and our 876 partners store and access personal data, like browsing data or unique identifiers, on your device. Selecting I Accept enables tracking technologies to support the purposes shown under we and our partners process data to provide. Selecting Reject All or withdrawing your consent will disable them. If trackers are disabled, some content and ads you see may not be as relevant to you. You can resurface this menu to change your choices or withdraw consent at any time by clicking the Show Purposes link on the bottom of the webpage. Your choices will have effect within our Website. For more details, refer to our Privacy Policy. [Here](#)

We and our partners process data to provide:

- Use precise geolocation data. Actively scan device

I Accept

Reject All

Show Purpose



Full Ar

Repri

Abstra

This stud

model in

proce

parts

conditi

rejection

periodic

perfect

the last

cost is d

y (EPQ)

perfect

defective

state. The

r owing to

two types of

bability of

med since

ing the total

arning effect.

Finally, this investigation presents a numerical example to illustrate the effects of PM

ability, repair cost and defect number on total costs and production period. This study finds that enhancing maintenance ability reduces production related costs. The product system can be produced more efficiently using a PM program.

Keywords: [production](#) [imperfect maintenance](#) [learning effect](#) [optimum](#) [backorder](#)

Acknowledgements

The author is pleased to thank the anonymous referees, and the editors, for their valuable comments and suggestions, which significantly improved the clarity of this paper. This research was supported by the National Science Council of Republic of China, under Grant No. NSC 99-2410-H-143-009-MY2.

Related research

People also read

Recommended articles

Cited by
23



Information for

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

Opportunities

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

Keep up to date

Register to receive personalised research and resources by email

 Sign me up



Open access

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

Help and information

- Help and contact
- Newsroom
- All journals
- Books

Copyright

Accessib

Registered
5 Howick Pl

or & Francis Group
orma business

