



381 | 5 | 1
Views | CrossRef citations to date | Altmetric

Articles

Optimal inventory decisions when offering layaway

Stanko Dimitrov & Oben Ceryan

Pages 1161-1175 | Received 08 Jun 2017, Accepted 12 Jul 2018, Published online: 25 Sep 2018

Cite this article <https://doi.org/10.1080/00207543.2018.1502484>



Full Article

Figures & data

References

Citations

Metrics

Reprints & Permissions

Read this article

Share

Abstract

This paper presents an inventory management policy for a retailer offering a layaway programme. Layaway is a service provided by retailers that allows budget constrained consumers who have sufficiently high valuations to pay for a product in several instalments rather than at once and obtain the product that has been reserved for them at the end of the payment period. If a consumer defaults on payments, then the reserved item is released back into store inventory. In this paper, we first determine the retailer's optimal order decisions when layaway is offered. We find that the order quantity under a layaway programme decreases with the likelihood of consumers not finishing their layaway plans and that it is not always profitable for a retailer to offer a layaway programme. We then identify the market conditions under which the retailer would benefit from a layaway programme. Lastly, we consider an extension to capture the influence of the timing of consumer defaults.

Keywords:

- layaway
- inventory management
- consumer behaviour
- order quantity
- profit maximisation

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

Stanko Dimitrov <http://orcid.org/0000-0003-1573-1140>

Oben Ceryan <http://orcid.org/0000-0002-7298-9781>

Additional information

Funding

This work was supported by Natural Sciences and Engineering Research Council of Canada.

Related research

- People also read
- Recommended articles
- Cited by
5

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 © 2025 Informa UK Limited [Privacy policy](#) [Cookies](#) [Terms & conditions](#)

[Accessibility](#)

 Taylor and Francis Group

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