



383 | 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

