
Editorial

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1 Introduction

Greetings. 2017 is a good year for the *International Journal of Inventory Research (IJIR)* because we have completed the publication of a few interesting special issues as well as received many good paper submissions. It is also remarkable that we have kept the average review time for every manuscript to be 75 days.

2 Awards

As we announced in the editorial of last year's editorial (volume 4, issue 1), we had established the awarding schemes to merit outstanding editors, reviewers and contributors. Upon discussion with the editors, the following winners are selected. Each winner will receive a certificate for the honors.

- *The Best Editor Award*: Professor Ata Allah Taleizadeh, for professionally handling paper reviews, organising special issues, and providing timely editorial recommendations.
- *The Best Reviewer Award*: Professor Bin Shen for providing high quality and constructive reviews to the submissions in a timely manner.
- *The Timothy Urban Best Paper Award*: Professor Barry R. Cobb, from Department of Marketing, Missouri State University, Springfield, MO, USA, for his following paper: Cobb, B.R. (2016) 'Lead time uncertainty and supply chain coordination in lost sales inventory models', *International Journal of Inventory Research*, Vol. 3, No. 1, pp.5–30.

3 About this issue – inventory insights

This regular issue of *IJIR* includes five research papers. The respective inventory insights of the papers are summarised as follows.

Pal and Samanta explore the inventory model for a non-instantaneous deteriorating item. The authors consider the case when deterioration of the item appears randomly, i.e., at a random time point. They assume that no shortage is permitted and demand is

uniformly distributed. The authors derive the optimal ordering quantity as well as the re-order intervals. Among other findings, they find that the re-order cycle's length is increasing in the ordering cost and it is a decreasing function of the deterioration rate, purchasing cost and inventory carrying cost.

Bhattacharjee, Giri and Chakraborty study a single-vendor single-buyer supply chain. They consider the case when the vendor's capacity is constrained. The authors explore the situation when the vendor delivers the quantity ordered by the buyer in equal shipments. By formulating a formal analytical optimisation model, they characterise the problem and solve the optimisation problem in which the vendor's capacity is the decision variable. They show how their model is related to the joint economic lot sizing problem in inventory control.

Gerchak examines the optimal inventory control problem with reference prices. They formulate a two-period problem in which consumers react to the prices offered at first and second periods by the retailer. In the price-setting newsvendor inventory model with uniform noise distribution, the author has shown the key structural features of the problem analytically.

Patoghi and Setak investigate an inventory system for non-instantaneous deteriorating items. The authors build a demand model which depends on the price and advertisement frequency. The optimisation objective is to determine the optimal price, the optimal replenishment cycle and the optimal advertisement frequency, which maximise the total profit. The authors also explore the Pareto optimal solution.

Shah and Naik explore an optimisation model for non-instantaneous deteriorating items. In their model, they consider the learning effect on costs and a time and price dependent demand function. The authors examine how a technology investment can help reduce the deterioration rate. With an objective to maximise the total profit, the authors derive the optimal decision (including the selling price, optimal replenishment cycle time, the preservation technology investment per unit time, etc). The authors report a numerical example and conduct a sensitivity analysis to derive novel insights.