Huang, Y.-F.

Optimal retailer's ordering policies in the EOQ model under trade credit financing. (English)

Zbl 1097.90501
J. Oper. Res. Soc. 54, No. 9, 1011-1015 (2003).

Summary: The main purpose of this note is to modify the assumption of the trade credit policy in previously published results to reflect the real-life situations. All previously published models implicitly assumed that the supplier would offer the retailer a delay period, but the retailer would not offer the trade credit period to his/her customer. In most business transactions, this assumption is debatable. In this note, we assume that the retailer also adopts the trade credit policy to stimulate his/her customer demand to develop the retailer's replenishment model. Furthermore, we assume that the retailer's trade credit period offered by supplier M is not shorter than the customer's trade credit period offered by retailer N ($M \geq N$). Under these conditions, we model the retailer's inventory system as a cost minimization problem to determine the retailer's optimal ordering policies. Then a theorem is developed to determine efficiently the optimal ordering policies for the retailer. We deduce some previously published results of other researchers as special cases. Finally, numerical examples are given to illustrate the theorem obtained in this note.

MSC:

90B05 Inventory, storage, reservoirs

Keywords:

EOQ; inventory; trade credit; permissible delay in payments

Full Text: DOI