An Inventory Model with Noninstantaneous Receipt

and Permissible Delay in Payments

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Abstract

This article explores an inventory system with noninstantaneous receipt under conditions of permissible delay in payments. The noninstantaneous receipt model under trade credit is newly introduced. The purpose of this article is to determine the optimal replenishment policies under conditions of noninstantaneous receipt and permissible delay in payments. We present an easy analytical closed-form solution to find the optimal order quantity, order cycle and order receipt period so that the total relevant cost per unit time is minimized. Numerical examples are presented to illustrate the proposed model.

Keywords: Inventory, Noninstantaneous Receipt, Replenishment Policies, Permissible Delay in Payments.