

Chapter 8

Setting Two-Tiered Price for Non-Instantaneous Deterioration: Price-Sensitive Quadratic Demand

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ABSTRACT

To survive in cut-throat competition of today's business, manufacture gives permissible delay in payment to retailer to increase demand of the product. Here, manufacturer provides permissible delay in payment to retailer. In this chapter, we study inventory control system of non-instantaneous deteriorating item with maximum fixed life-time and two-tiered pricing policy is adopted. The selling prices of product for the non-deteriorating period and the deteriorating period are different. Demand is a function of time and two-tiered selling prices which is more suitable for food industry. In the former, we consider the concept of preservation technology investment to preserve the product and reduce deterioration rate in the inventory system when deterioration start. In later view, we ignore the concept of preservation technology. Due to investment on preservation technology, demand of the product increases and retailer can earn more profit compare to without preservation.

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