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Trade Credit in Supply Chains for Deteriorating Items

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Abstract

Trade credit is an invaluable promotional tool for the suppliers to increase profit through stimulating more sales and a unique opportunity for the retailers to reduce demand uncertainty and its associated risks. It is a regular component of market transactions and constitutes a major source of short-term financing. Its nature has predominantly been an area of inquiry for researchers from the disciplines of finance, marketing, and economics. This is especially remarkable for operational management since financial flows are considered a key element of purchasing and supply chain management. In this review article, an attempt is made to present a complete up-to-date survey of published inventory literature under trade credit for deteriorating items. Compared with the extant reviews (Chang et al 2008; Soni et al 2010), this paper covers the studies from a different perspective. First, this paper proposes some key factors which should be considered in the inventory studies of deteriorating items under trade credit; then, from the perspective of study scope, the literatures are distinguished into different categories with other factors like shortages, price discount, limited storage space, inflation and the time value of money with trade credit and types of trade credit. The literature review framework in this paper provides a clear overview of the inventory models under trade credit for deteriorating items, which can be used as a starting point for further study.

Keywords: Inventory, Trade Credits, Deteriorating Rate, Factors Related To Trade Credits

1. Introduction :

From past few years, many researchers have studied inventory models for deteriorating Items. In general, almost all products deteriorate over time. Sometimes the rate of deterioration is too low, for items such as steel, hardware, glassware and toys, to cause consideration of deterioration in the determination of economic lot sizes. However, some items have a significant rate of deterioration, such as blood, fish, strawberry, alcohol, gasoline, radioactive chemicals, medicine, and food grains that deteriorate rapidly over time, which cannot be ignored in the decision making process of production lot size.

In the traditional economic order quantities (EOQ) model, it is assumed that the retailer must pay to the supplier for the items as soon as the items are received. Today, in practice, the supplier is willing to offer the retailer a certain credit period without interest during the permissible delay period to promote market competition. Before the end of the trade credit period, the retailer can sell the goods and accumulate revenue and earn interest. A higher interest is charged if the payment is not settled by the end of the trade credit period.

A review on inventory models under trade credit

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Abstract: Trade credit is a regular component of market transactions. It arises when a seller allows a buyer to delay making payments for purchased goods or services. Such a contract has attracted the attention of many researchers and practitioners in recent years. In this review article, an attempt is made to present a complete up-to-date survey of published inventory literature under trade credit. This paper addresses the researches with delay in payment and presents pertinent information about developments and extensions of such models to provide an up-to-date review of the studies conducted. It is also an attempt to prepare this paper in a different view of the diagram so that new researchers can easily understand how and what is the development of inventory under trade credit? This can also be the starting point of further research.

Keywords: inventory; trade credit; factors related to trade credit.

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