AN INCENTIVE EOQ INVENTORY MODEL WITH PRICE DISCOUNT

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ABSTRACT

This article looks at the problem of a supplier placing an order and providing a consumer a discount. This study's objective is to develop a decision-making procedure that will assist retailers in selecting between a regular order policy and a special order policy. The three possibilities in the created model are the optimal special order quantity is calculated with both regular and additional quantity benefits, while the optimal special order quantity is determined only with additional quantity benefits and the optimal order quantity is computed without taking advantage of price savings. This study finds the ideal solution, illustrates the theoretical conclusions using a variety of numerical examples, and then runs a sensitivity analysis of the ideal solution with respect to the key parameters.

Keywords: EOQ, Inventory, Special order quantity, Price discount

1. INTRODUCTION

In reality, if a supplier encounters significant market saturation, an unexpected overflow of inventory, or a change in the product's manufacturing run, he or she may offer customers a special price discount to acquire a special amount. Retailers are encouraged by the discount to place larger orders and give discounts to customers in order to boost demand and profits.

Heuristics for sourcing from several providers with different quantity discounts were examined by Burke et al. in 2008. The ideal order size was created by Leopoldo Eduardo