Abstract

Most inventory control models have been developed for situations where average demand remains constant with time. This paper shows how the traditional (R, S) model induces the system to maintain high inventory levels in low demand seasons, and low inventory levels in high demand seasons, which is a very undesirable behavior. In this paper the authors propose a variation to the (R, S) model that makes it usable for seasonal demand patterns and corrects the problem found in the traditional model. Finally, a sensibility analysis was conducted to find that the proposed model is very sensitive to changes in demand variability, but no sensitive to changes in seasonality.

Keywords

Inventory Control, Simulation, Logistics, Seasonal Demand