DEMAND FORECAST AND INVENTORY PLANNING

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ABSTRACT

The paper proposes an approach to the two period inventory problem for items that have heterogeneous Poisson demands. A model is constructed whose appealing features reveal aspects of the nature of the optimal stocking problem that enable the manager to assess the degree to which demand is affected by factors such as the adopted promotional policy or the utility and inherent appeal of the item. The forecasts obtained by the model are utilized in the derivation of the optimal inventory stocking policy from a profit maximization standpoint.

Keywords and Phases: Demand Distribution; Demand Forecast; Inventory Model; Compound Poisson Demand; Generalized Waring Distribution.