# DECISION SUPPORT SYSTEM FOR OPTIMAL REORDER POINT VARIABLE LEAD TIME INVENTORY MODEL

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## Abstract

Lead time reduction has been one of the major factors in the successful implementation of the popular just-in-time (JIT) inventory system. In many practical situations, this controllable lead time can be decomposed into several components; each having a crashing cost for the reduced lead time and the associated crashing expenses contains a fixed cost and a variable cost per unit product. If an item is out of stock in an inventory system in which shortage is allowed, the supplier may offer a negotiable price discount to the loyal, patient and captive customers to compensate for the inconvenience of backordering. Because the reduction of inventory cost plays an important role in production management, this research builds a decision support system to deal with the optimal reorder point inventory model. In the decision support system concerning about the inventory model, we take many parameters into account and help the decision maker to take choice.

Keyword：Lead Time, Backorder Discount, Decision Support System