

A Comparison among Various Inventory Shortage Models on the Basis of Maximizing Profit

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Abstract For a finite planning horizon, there has been a considerable body of research papers in the area of Operations Management dealing with four different inventory shortage models for the last two decades. In this paper, we use maximizing profit as the objective to make an appropriate comparison among those four alternatives. The theoretical results reveal that Model 4 provides the highest profit only if the profit margin is sufficiently low. Otherwise, in general, Model 3 has the highest profit among them.

Keywords: Inventory, EOQ, Shortage Models, Maximum Profit.