

A Simulation Study on Inventory Record Inaccuracy in Two-echelon Systems

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ABSTRACT

Devoting earn more benefit is the most important thing for companies. Beside reducing material cost, inventory management is very important for supply chain. In reality, inventory record inaccuracy problem usually be neglect in inventory management problem. Thus inventory record inaccuracy problem will lead to many problems which like companies have excess stock problem or stockout problem. These problems may lead companies loss goodwill and order.

The study is discussed with Two-echelon Continuous-Review(s,S) inventory system, based on the aim of reducing inventory costs, to explore affected Two-echelon inventory system in inventory record inaccuracy. Classify inventory record inaccuracy factor as stock losing factor and information error factor to build simulation models. Before experiment, verify models by calculating inventory flow balance of inventory system. Then experiment to observe the changing of inventory system by altering stock losing rate and information error rate to analyze the effect of Two-echelon inventory system and find out which correlation cost involve total cost easily. And changing inventory policy decision values of retailer and warehouse to analyze the changing of correlation cost and reduce total cost.

Keyword: Two-echelon Inventory System 、 Continuous-Review (s,S)Inventory Policy 、 Inventory Record Inaccuracy 、 Simulation 、 Flexsim