## **SARBJIT SINGH**

INSTITUTE OF MANAGEMENT TECHNOLOGY, NAGPUR, India

## INVENTORY POLICY OF ITEMS HAVING UNCERTAIN DEMAND UNDER PERMISSIBLE DELAY IN PAYMENTS

## **Abstract:**

Nothing is sure in this world except death, then how can surely; a supplier/retailer can determine the demand for his items. In the classical EOQ models, it has been considered that demand is deterministic, but in actual practice it is not possible to have a fixed demand, this study discusses the more realistic overview of demand, as in realistic situations, we can't have dependent demand; it is possible only if you're supplying sub-assembly parts on a contract basis. Therefore, in this study stochastic demand has been considered. This study also considers the effect of trade credit with stochastic demand, which has not been used earlier, as both these are pragmatic concepts without considering these two factors, we can't think of any practically applicable inventory model.

## **Keywords:**

Probabilistic Demand, Permissible Delay, Inflation, Backorder