Abstract

The main objective of this paper is to develop a Supply chain model of a volume agile manufacturing process for the deteriorating items. It is assumed that an EOQ model in which inventory is depleted not only by demand also by deterioration. In this study, a model for the producer by assuming stock dependent demand rate is developed. It is assumed that the deterioration rate follows the Weibull distribution. The unit production cost which is treated to be a function of the finite production rate which is treated to be a decision variable. This whole study is studied in the inflationary environment. The mathematical expression for the total cost is derived and it is minimized. The solution procedure is illustrated with the help of numerical example.

References

EOQ Model with Volume Agility, Variable Demand Rate, Weibull Deterioration Rate and Inflation

Index Terms

Computer Science  Applied Sciences

Keywords

Volume agility  Stock dependent demand  inflation and Weibull deterioration rate