Abstract

The objective of this paper is to develop an inventory model with fuzzy inflation and multi variant demand rate. A new demand rate introduced which depends on price, quality and time. Planning horizon is random in nature for manufacturing company. Production rate is taken to be flexible in nature which depends on the technology frequency, capital investment and its elasticity and number of labour. Model is developed for both crisp and fuzzy environment. Numerical example is cited to illustrate the results and its significant features. Finally, to study the effect of changes of quality, inflation and planning horizon sensitivity analysis is carried out.

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