An Optimization model for Triple Sourcing, Supply Chain under Disruption

Abstract

The trade-off among ordering policies and disruption risks in sourcing networks is a critical issue. This research proposes a generic newsvendor type model for triple sourcing, supply chains where all of the three chains subjected to disrupt events. It is assumed that each supply channel is susceptible to network, operations, and external risks or a combination of all of them. Optimal solutions are obtained in the ordering quantities and the total expected profit is computed. An illustrative numerical example is performed to help managers in balancing the ordering strategies under supply chains' risks.

References

An Optimization model for Triple Sourcing, Supply Chain under Disruption

supply chain networks.
guiding framework for future development.
networks: a case study.
operations.
management in a two-stage production and inventory system.
dual-sourcing supply chains: A disruption risk management framework.
11. Xia, Y. 2015. Responding to supplier temporary price discounts in a supply chain
through ordering and pricing decisions.
disruptions in global sourcing.

Index Terms

Computer Science

Information Sciences

Keywords

Demand uncertainty, triple sourcing, supply chain risk management, stochastic model