

# **Supply Chain Coordination with Price-sensitive Demand under the Risks of Demand and Supply Disruptions**

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## **Abstract:**

This paper considers coordination in a supply chain which consists of a single- supplier and a single- retailer when the demand at the retailer is dependent on price. We develop models for the decentralized system, centralized system and decentralized system with revenue sharing contract between the supplier and the retailer under the risks of demand disruption at the supplier and supply disruption at the retailer. We observe from the analysis and the numerical study that the supply disruption reduces the profit of the retailer, the supplier and the whole system whereas the revenue sharing mechanism helps the system to increase its profit.

## **Key words:**

Supply chain coordination, price-dependent demand, disruption, revenue sharing contract.