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Modeling of the across-chain inventory coordination in cluster supply chains. (Chinese. English summary) [Zbl 1174.90308](#)

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Summary: On the basis of cluster supply chains consisting of two single ones, the retailer of one supply chain transshipping stock from the retailer of the other chain is taken into account for exploring across-chain inventory coordination. The two across-chain inventory coordination models with and without single chain (supplying) constraint are built. To reduce stock and increase profits, the regular replenishment quantity and emergency transshipment quantity for the receiving chain are found through utilizing systematic optimization theory. The experiment results show that across-chain inventory coordination can be promoted by higher retail price, higher inventory rate, shorter order interval and lower emergency transshipment price.

MSC:

90B05 Inventory, storage, reservoirs

90B06 Transportation, logistics and supply chain management

Keywords:

inventory management; cluster supply chains; across-chain coordination; emergency transshipment; regular replenishment