

Disruption Coordination of Supply Chain with Loss-Averse Retailer Under Buy-Back Contract

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Abstract : This paper aims to investigate a two stage supply chain of one leading supplier and one following retailer that experiences two factors perturbation out of supplier's production cost, retailer's marginal cost and retail price in stochastic demand environment. Granted that risk neutral condition has long been discussed, little attention has been given to disruptions under the premise of risk neutral supplier and risk aversion retailer. We establish the optimal order quantity and revealed the profit distribution coefficient in risk-neutral static model, make adjustment under disruption scenario, and then select utility function method for risk aversion model. Using buy-back contract policy, the improvement of parameters can achieve channel coordination where Pareto optimal is realized.

Keywords : supply chain coordination, disruption management, buy-back contract, lose aversion

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