

非对称信息和弹性需求下的供应链激励机制研究

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Incentive Mechanism in Supply Chain under Asymmetric Information and Elastic Demand

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摘要 本文针对价格弹性需求和对非对称信息下两级供应链的激励机制问题进行了探讨。运用机制设计理论和博弈论相结合的方法,从集中控制和对称信息两种情况切入,对销售价格的最优解及供应链双方的收益进行分析;在此基础上就销售商成本信息不对称时,供货商激励机制的设计问题做了深入研究,得出具有Pareto改善的次优结果和必要条件。实例仿真验证了结论,讨论了激励机制下供应链各方收益的变化情况,以及该机制对整个系统效率的影响。

关键词: 非对称信息 弹性需求 机制设计 激励机制

Abstract: The mechanism designing theory is utilized to discuss the incentive mechanism under asymmetric information and price elastic demand. The optimal retailing prices and the profits of supply chain members are analyzed under two situations: the centralized control and decentralized gaming, and then the supplier's incentive mechanism designing are studied when the retailer's cost is unknown. Thus the subprime results and prerequisite with pareto are obtained. Finally, the change of the supply chain members' profits with the asymmetric information incentive mechanism and the influence of this mechanism on the system's efficiency via a numerical simulation are discussed.

收稿日期: 2011-07-28;

基金资助: 国家自然科学基金资助项(10971126); 上海财经大学'211工程'三期重点学科建设项目

引用本文:

郎艳怀. 非对称信息和弹性需求下的供应链激励机制研究[J]. 中国管理科学, 2012, V20(5): 106-111


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