

## 双边道德风险下供应链质量协调契约研究

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## Study on the Quality-Coordination Contract of Manufacturing Supply Chain under Double Moral Hazard

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**摘要** 契约的公平性是契约有效性的前提,也是提高供应链协调效率的基本保证。本文基于外部市场变化对契约公平性影响,运用委托代理理论,同时考虑供应商和制造商质量失误的基础上,构建双边道德风险下二级供应链质量控制博弈模型,分析外部损失分担与内部惩罚质量契约协调下双方产品质量控制水平,研究外部市场及质量成本变化对两种契约的公平性和有效性的影响,并对模型分析结果进行仿真验证。结果显示:外部认证系统直接影响外部损失分担契约的公平性与有效性,而对内部惩罚契约无效;当供应商不必为制造商质量失误负责时,外部损失契约将实现对供应链的质量协调;随着供应商质量控制成本的提高,内部惩罚契约质量控制效果将高于外部损失分担契约,而当制造商质量控制成本下降时,外部损失分担契约较内部损失分担契约更有效。因此,保证契约的公平性是实现供应链产品质量协调的根本前提。

**关键词:** 双边道德风险 质量控制 外部损失分担契约 内部惩罚契约

**Abstract:** Fairness is the effectiveness premise of the contract, and also the guarantee of coordination improvement of a supply chain. Considering the influence of market change on the contract's fairness, in this paper, considering double moral hazard, a quality control game model for a manufacturing supply chain based on the Principal-agent theory, and the quality-control levels of the supplier and manufacture both which have quality failures are analyzed. How the change of the market and quality cost impact on the fairness and effectiveness of the contracts is also studied. The result shows after the simulation verification, the accuracy of investigation technology affects the fairness and effectiveness of external loss sharing contracts directly while is invalid on the internal punishment contracts. The external loss sharing model will coordinate the supply chain only when the supplier does not have to be responsible for the manufacturers' to failure. The effects of internal punishment contracts will be higher than the external loss sharing contracts with the increase of the supplier's quality-control costs, while the external loss sharing contract will be more effective with the decrease of the manufacturer's quality-control costs. So, to realize the quality coordination in a supply chain, fairness of the contract is underlying premise and should be first.

收稿日期: 2011-08-17;

基金资助:

北京市哲学社会科学规划项目(11JGB043); 2011年度教育部人文社会科学研究规划基金项目(11YJA790182)

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### 引用本文:

申强,侯云先,杨为民.双边道德风险下供应链质量协调契约研究[J].中国管理科学,2014,V22(3):90-95

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- [1] 倪冠群, 徐寅峰, 郑斐峰. 网上一口价在线拍卖的定价策略设计[J]. 管理科学学报, 2011, 14(3): 1-9.
- [2] Chao G H, Iravani S M R, Savaskan R C. Quality improvement incentives and product recall cost sharing contracts[J]. Management Science, 2009, 55(7): 1122-1138. 
- [3] Goldberg A, Hartline J, Wright A. Competitive auctions and digital goods[C]. Proceeding of twelfth Annual ACM-SIAM Symposium on Discrete Algorithms, Washington, DC, January 7-9, 2001.
- [4] Zhu Kaijie, Zhang R Q, Tsung F. Pushing quality improvement along supply chains[J]. Management Science, 2007, 53(3): 421-436. 
- [5] 李丽君, 黄小原, 庄新田. 双边道德风险条件下供应链的质量控制策略[J]. 管理科学学报, 2005, (1): 42-47. 
- [1] 朱立龙, 于涛, 夏同水. 两级供应链产品质量控制契约模型分析[J]. 中国管理科学, 2013,(1): 71-79
- [2] 朱立龙, 于涛, 夏同水. 两种激励条件下三级供应链产品质量控制策略研究[J]. 中国管理科学, 2012,20(5): 112-121
- [3] 朱慧明, 曾惠芳, 虞克明, 郝立亚, 李素芳. 基于多子样的贝叶斯动态过程能力估计与评价方法研究[J]. 中国管理科学, 2009,17(4): 170-177
- [4] 熊中楷, 曹俊, 刘克俊. 基于动态博弈的闭环供应链回收质量控制研究[J]. 中国管理科学, 2007,15(4): 42-50
- [5] 胡华安, 田益峰, 向卓元, 邓望年. 物资采购综合评价指标体系质量控制模型应用研究[J]. 中国管理科学, 2004,(1): 75-80