

## Downside-risk测度下零售商主导的供应链风险共享契约研究

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## Study on Risk Sharing Contract Design of Retailer-Leading Supply Chain with Downside-Risk Control

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- 摘要
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**摘要** 本文以由具有下行风险的制造商和其下游风险中性的零售商组成的两阶供应链为背景,证明了收益共享契约在满足Downside-risk约束下不能实现该供应链的协调。并在收益共享契约的基础上设计了风险共享契约,在满足下行风险约束的条件下,保证供应链参与方利润都获得提高,实现Prateo改进。最后通过数值分析验证了风险共享契约的有效性,并指出制造商的风险规避程度在一定范围内越大,实施风险共享契约使供应链参与方获得的新增利润越大。

**关键词:** 下行风险 供应链 风险共享 协调

**Abstract:** Under the downside-risk control, the revenue sharing contract cannot coordinate the supply chain which formed by the retailers and the downside-risk-averse manufacturers. And on the basis of revenue sharing contract, risk sharing contract is designed, which ensure the profits of supply chain participants are given to improve and realize Prateo improvement with the downside-risk control. Finally the effectiveness of risk sharing contract is verified by numerical analysis, and find the greater the manufacturer's risk aversion (downside risk) in a certain range, the greater the additional profits of supply chain participants access with implementing risk sharing contract.

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