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基于 ROI, VMI 和 CS 三种库存方式长短期绩效的对比研究

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A Comparative Study of Short and Long-term Performance Based on ROI, VMI and CS Inventory Policies

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- 摘要
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- 相关文章

全文: PDF (482 KB) HTML (1 KB) 输出: BibTeX | EndNote (RIS) 背景资料

摘要 ROI、VMI 和CS 是基于供应链的三种库存管理方式. 本文以两层供应链的ROI 、VMI 和CS 方式为例, 通过数学模型和具体算例, 比较分析了三种库存方式下买方和卖方成本和利润构成的不同之处. 本文研究发现:在长期内相对于ROI 方式而言, VMI 方式下供应链的效率更高; 如果卖方的单位存储成本大于买方, CS 方式下供应链的长短期效率可能高于VMI 更高于ROI 方式.

关键词: 零售商占有库存 卖方管理库存 寄售库存 供应链绩效

Abstract: ROI, VMI and CS are three of most widely discussed partnering initiatives for improving multi-firm supply chain efficiency, that is to say three inventory policies based on supply chain. In this paper, we introduce some mathematics models and try numerical examples for the purpose of examining the analytical expressions of costs and profits of buyer and supplier in such three different policies as ROI, VMI and CS. We draw lessons from the practice of Dong and Xu, divide both cost and profit into two cases (short-term and long-term) and then calculate the cooperation and non-cooperation solutions of both buyer and supplier in ROI, VMI and CS policies according to variable market demand Our results suggest that VMI provides higher efficiency compared with ROI in the long run. If we suppose the unit storage cost of the vendor is greater than the buyer, CS policy may be more effective than the VMI even better than ROI both in the short and long run.

Key words: retailer-owned inventory vendor managed inventory consignment stock supply chain performance

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