Financing and information sharing in capital-constrained supply chain

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ABSTRACT

This paper focuses on financing choices and information-sharing strategies in the capital-constrained supply chain. We model four scenarios with the capital constraints of the respective manufacturer and retailer using bank credit financing (BCF) and trade credit financing (TCF) approaches to address financing problems, and investigate the retailer’s willingness to share demand forecasting information. We find that TCF is an equilibrium financing choice for a capital-constrained supply chain. However, when a capital-constrained member chooses TCF, sharing demand information over the supply chain becomes more difficult. The interactions between the choices of financing approach and information sharing based on the game equilibria, as well as the conditions that encourage the well-funded member to offer TCF in the capital-constrained supply chains, have also been analytically explored and numerically verified. Additional managerial insights are provided for discussions.

Keywords: Supply chain; Capital constraint; Information sharing; Financing choice; Game equilibrium

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