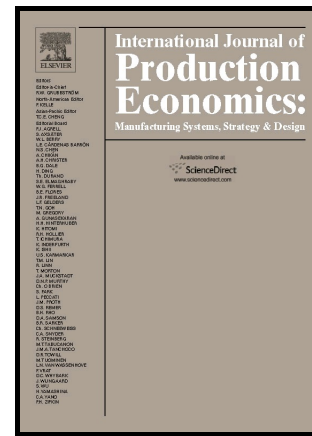


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# A two-level delay in payments contract for supply chain coordination: The case of credit-dependent demand

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## Abstract

This paper investigates the coordination of decisions in a two-echelon supply chain (SC) consisting of a supplier delivering a single product to a retailer. Demand is assumed stochastic and credit-dependent. A two-level delay-in-payments contract is applied as an incentive scheme to coordinate both ordering and marketing decisions. Under decentralized decision making, the retailer decides both on the size of the order quantity as well as on the length of the credit period offered to the customers. The supplier, in turn, proposes a delay-in-payments contract as an incentive scheme to induce the retailer to make globally optimal decisions. Numerical experiments illustrate that the proposed model leads to higher profits for the SC. In addition, the model increases the expected profit of both players and thus ensures that they participate in the cooperation. Applying the coordination scheme

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