

Sting, Fabian J.; Huchzermeier, Arnd

Ensuring responsive capacity: how to contract with backup suppliers. (English)

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Summary: Firms that source from offshore plants frequently perceive the lack of reliability and flexibility to be among the major drawbacks of their strategy. To mitigate against imminent mismatches of uncertain supply and demand, establishing capacity hedges in the form of responsive backup suppliers is a way out that many firms follow. This article analyzes how firms should contract with backup suppliers, inducing the latter to install responsive capacity. We show that supply options are appropriate to achieve sourcing channel coordination under forced compliance, whereas any firm commitment contract imposes a deadweight loss on the system. Whereas price-only contracts are unable to coordinate the sourcing channel under voluntary compliance, utilization-dependent price-only contracts are. Under the former contract, a price-focused strategy on the part of the manufacturer turns out to diminish the system's service level and possibly has negative implications on installed backup capacity, and not least on the manufacturer's profit.

MSC:

90B06 Transportation, logistics and supply chain management

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Keywords:

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