Suppliers cutting corners: Can excessive competition compromise quality?

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Abstract

Higher number of competing bidders, n, in electronic reverse Auctions creates price pressure on the winning supplier, thus increasing its incentives to cut corners which could result in supplier non-performance. However, higher competition also increases the likelihood of finding a more efficient (lower cost) supplier thus negating the pressure of lower payment on non-performance risk. We present a model that captures this tension in analyzing the impact of supply base size, n, on supplier non-performance risk. Using auction theory we characterize conditions on suppliers' underlying cost distribution under which the ex-ante likelihood of cutting corners is increasing in n. We then formulate the cost versus risk trade-off in buyer's supply base size decision that arise when supplier non-performance risk increases with n and characterize conditions on optimal supply base size for uniformly distributed costs. We further find that dual sourcing could decrease risk of supplier non-performance and buyer's procurement cost over single-sourcing and that splitting awards more evenly in dual sourcing results in lower likelihood of non-performance.

Speaker Profile:

Aadhaar Chaturvedi is an Assistant Professor of Operations and Supply Chain Management at University of Namur, Belgium. His research focuses broadly on Supply Chain Management and more specifically on Sourcing Strategies and how procurement decisions can be better integrated with other aspects of supply chain management like risk management, competition, inventory management and capacity management. Of particular interest to him are research questions related to use and design of electronic Reverse Auctions (eRAs) in sourcing.