

Delegation versus Control under Competition and Bargaining Power Distribution in Supply Chain Procurement

Parisa Rahimi

Industrial Engineering Department
Iran University of Science and Technology
Tehran, Iran
rhm.parisa@gmail.com

Ehsan Bolandifar

Business School
The Chinese University of Hong Kong, Hong Kong
ehsan@baf.cuhk.edu.hk

Rassoul Noorossana

Industrial Engineering Department
Iran University of Science and Technology
Tehran, Iran
rassoul@iust.ac.ir

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Abstract

This paper studies the optimal strategies of procuring components in a three-tier supply chain setting, including two competing original equipment manufacturers (OEM), a contract manufacturer (CM) and a supply market. The OEMs sell substitutable products in the same market. The OEMs are dependent on the CM to perform significant manufacturing tasks or customized processing services. The CM also needs a key component for performing its task; this key component should be procured from an upstream supplier. To procure the key component, each OEM has two options; it can either procure directly through the supply market or delegate procurement process to the CM. The OEMs procurement game has been analyzed under a nonstrategic supplier case where a quantity discount schedule is exogenously given. The optimal component procurement strategy has been characterized at different levels of quantity discount rates offered by the upstream supplier.

Keywords

Procurement, Delegation, Contract Manufacturer and Supply Chain.

Parisa Rahimi received the B.S. and M.S. degree in Industrial Engineering from Iran University of Science and Technology in 2014 and 2018 respectively. She was a Research Assistant in Business School of the Chinese University of Hong Kong from 2015 to 2016. Her research interests include Supply Chain Management and Optimization.

Ehsan Bolandifar is an assistant professor of Decision Science and Managerial Economics at the Chinese University of Hong Kong Business School. Prior to joining the Chinese University of Hong Kong, he was a Ph.D. candidate at Washington University in St. Louis. He received his Ph.D. degree in Operations and Manufacturing Management in Aug 2012. He also received his B.S. and M.S. in Industrial Engineering from Iran University of Science and Technology and Sharif University of Technology, respectively. His research focuses on Supply Chain Management/ Healthcare Management.

Rassoul Noorossana received the B.S. degree in engineering from the Louisiana State University, Baton Rouge, LA, USA, in 1983 and the M.S. and Ph.D. degrees in engineering management and statistics from the University of Louisiana, Lafayette, LA, USA, in 1986 and 1990, respectively. He is currently a Professor of statistics at the Department of Industrial Engineering at Iran University of Science and Technology. His primary research interests include statistical process control, process optimization, Six Sigma, and statistical analysis. Prof. Noorossana is the Editor of the Journal of Industrial Engineering International and serves on the Editorial Review Board of many journals. He is a Member of the founding committee for the Iranian Society for Quality. He is also a Senior Member of the American Society for Quality, Iranian Society for Quality, Iranian Statistical Association, and Industrial Engineering Society.