

The Hong Kong University of Science and Technology
Department of Information Systems,
Business Statistics and Operations Management

Seminar Announcement

***Time Is Money: Dynamic Leadtime Quotation
Under General Customer Utilities***

by

***Professor Tava Olsen
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Date: Friday, 6 May 2011

Time: 11:00 am – 12:00 noon

Venue: ISOM Conference Room 4379 (Lift 17/18)

~~~~~ All interested are welcome ~~~~~

**Abstract:** We consider a make-to-order (monopolistic) firm where customers are dynamically quoted leadtimes and prices. Customers have general (non-linear) disutility for delay. We use approximations in the large-capacity asymptotic regime to make the problem tractable. We provide recommended policies for convex, concave, and convex-concave leadtime cost functions for firms with either one (homogenous) or multiple (heterogeneous) classes of customer. We consider both the full information case and the (more realistic) case where the firm, being unaware of customer type, must offer incentive-compatible menus. We propose readily-implementable policies and test them numerically against a number of natural benchmarks. The policies are both highly intuitive and provide delay guarantees for all served customers. We find that significant benefits can accrue by using the prescribed dynamic policies.

**Bio:** Professor Tava Olsen holds the Ports of Auckland chair in Logistics and Supply Chain Management at the University of Auckland Business School. Prior to joining Auckland, she was Professor of Operations and Manufacturing Management in the Olin Business School at Washington University in St. Louis, which she joined after serving as an Assistant Professor in the Department of Industrial and Operations Engineering at the University of Michigan, Ann Arbor. Professor Olsen received her B.Sc. (honours) in Mathematics from the University of Auckland, New Zealand. She earned both her M.S. in Statistics in 1992 and her Ph.D. in Operations Research in 1994 from Stanford University. Professor Olsen's research interests include supply-chain management, pricing and inventory control, stochastic modeling of manufacturing, service, and healthcare systems, queueing systems, stochastic games, and applied probability. Among other journals, her publications have appeared in *Management Science*, *Manufacturing and Service Operations Management (M&SOM)*, *Operations Research*, and the *Journal of Applied Probability*. Professor Olsen has taught a wide variety of courses, including operations management, service operations, healthcare management, simulation, critical thinking, and project management, to a range of audiences from bachelors to executives.

Professor Olsen is currently an Associate Editor for *Management Science*, *M&SOM* and *Operations Research*, is a senior editor of *Production and Operations Management*, and is the Topical Editor for Supply-Chain Management for the *Wiley Encyclopedia of Operations Research and Management Science*. Professor Olsen has an extensive record of service within both her home institution and the OM community at large. Most notably, she is a past president of the Manufacturing and Service Operations (MSOM) society, was the Faculty Development Chair at Olin, and is currently the Academic Director of the Centre for Supply Chain Management at the University of Auckland.