

SEMINAR SERIES  
Department of Quantitative Analysis and Operations Management  
College of Business Administration  
University of Cincinnati

**Managing Competition in the Supply Chain; Applications in Service and Physical Products**

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**Friday April 2, 1999**  
**12:30 p.m.**  
**214 Lindner Hall**

In many industries, firms rely upon independent third parties to deliver their products to market. When a firm does this, its own profits depend upon the self-interested operating decisions made by these downstream organizations regarding capacity, inventory, pricing, etc. Whether these decisions are consistent with maximizing the profits of either the upstream firm or the supply chain as a whole depends upon the form of contract between the upstream and downstream firms.

This talk addresses two situations (one in services and one in physical goods) in which a firm distributes its product through a set of independent distributors that compete with one another in an oligopoly setting. For each situation, an analysis is presented of how alternative contracts with the distributors affect the form of competition among them and the resulting equilibrium. The analysis identifies specific types of contracts and operational policies that the upstream firm can implement for dealing with its distributors that induce more favorable forms of downstream competition.

The first part of the talk is based on, "Incentive Effects Favor Non-Consolidating Queues in a Service System," (co-authored with Z. Kevin Weng) which appeared in *Management Science* (Dec. 1998). The second part of the talk is based on work that is currently in progress.

Stephen M. Gilbert is an associate professor at the Weatherhead School of Management at Case Western Reserve University. His research interest is in the area of managing uncertainty in manufacturing and service operations. Recently, he has been studying problems that arise in the coordination of supply chains that operate in uncertain environments. His research has appeared in *Management Science*, *Operations Research*, *IIE Transactions*, *The European Journal of Operations Research*, and *The Journal of Manufacturing and Operations Management*. Steve teaches courses in operations management, both in the MBA program and in a graduate program for practicing engineers in the Engineering School. Prior to joining CWRU, Steve earned a Ph.D. in Operations Management at the MIT Sloan School of Management, an M.S. in Industrial Engineering at Stanford University, and a B.S. in Industrial Engineering at the University of Michigan.