

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

Seminar Announcement

Durable Products, Time Inconsistency, and Lock-in

by

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Date: 5 December 2008 (Friday)

Time: 11:00 am – 12:30 pm

Venue: Room 4379, ISOM Conference Room (L17/18)

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

Abstract

It is well known that when a durable goods manufacturer sells her product, her ability to earn rents can be impeded by consumers' rational expectation that she will have an incentive to reduce the price over time. This effect is known as *time inconsistency* in reference to the fact that the manufacturer's ability to earn rents is inconsistent with the passage of time. Although leasing has been widely recognized as a means to eliminate the externality that causes time inconsistency, it is not always practical. As a possible alternative, some manufacturers are able to charge consumers for the use of a durable product by tying its use to a contingent consumable, e.g. the owner of a copier must buy toner in order to make copies. By tying a durable to a proprietary consumable, a manufacturer introduces a potential hold-up issue: Once consumers have bought the durable and are locked-in, the manufacturer may have an incentive to increase the price for the consumables. However, the income stream from selling consumables may also reduce the manufacturer's incentive to reduce the price of the durable over time, partially mitigating the time inconsistency problem. In this paper, we explore how tying a durable to a proprietary consumable can mitigate time inconsistency and we develop insights in regard to how and when this approach should be implemented.

This is joint work with Sree Jonnalagedda.

Biography

Stephen M. Gilbert is a Professor of Operations Management at the McCombs School of Business at the University of Texas at Austin. He holds a Ph.D. in Operations Management from the Sloan School of Business at M.I.T. His current research focuses on issues of coordination in supply chains especially in the presence of strategic consumers. His publications have appeared in *Operations Research*, *Management Science*, *IIE Transactions*, *European Journal of Operational Research*, and elsewhere. Currently he serves as an Associate Editor for *Management Science*, as an Associate Editor and for *Manufacturing and Service Operations (M&SOM)*, and as a Department Editor for *IIE Transactions*.