

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

Seminar Announcement

***Durable Products with Multiple Used Goods Markets:
Product Upgrade and Retail Pricing Implications***

by

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Date: Monday, 4 Jan 2010

Time: 11:00 – 12:30 pm

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

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

**Abstract:**

Used goods markets are nowadays important transaction channels for durable products. For some durable products, such markets first appeared when retailers started buying back used products from “old” customers and selling them to new ones for a profit (retail used goods market). The growth of electronic peer-to-peer (P2P) markets opened up a second, frictionless used goods channel where new customers can buy used products directly from “old” ones (P2P used goods market). Both these markets compete with the original primary market whereby retailers sell unused products procured from the manufacturer. This paper focuses on understanding the role that the sequential emergence of the above two used goods markets plays in shaping the product upgrade strategy of the manufacturer and the pricing strategy of the retailer. We do so in the context of a decentralized, dyadic channel dealing with a renewable set of consumers. Our analysis establishes that frequent product upgrades and rising retail prices in durable product sectors of our interest are due to the emergence of the P2P used goods market and how it interacts with the retail used goods source in altering the relative powers of the channel partners. Moreover, contrary to popular belief, we show that the initial introduction of the retail used goods channel actually discourages introduction of new versions and restrains the rise in retail prices. We also comment on how the two used goods markets affect the profits of the channel partners.

**Biography:**

Shuya Yin joined the Paul Merage School of Business at the University of California - Irvine in July 2005. Her recent research addresses various problems in decentralized retail supply chains by using non-cooperative and cooperative game theory.

She is interested in issues including product-return policies between channel members, secondary market for durable products, alliances of players in selling and buying, timing of operational decisions, and management of information flow on uncertain demand. Her research has been published in academic journal such as Management Science, Operations Research, and Naval Research Logistics.

She obtained a bachelor of engineering degree from Southeast University in Nanjing, China; a master's degree in industrial management engineering from Southeast University, and a Ph.D. in management science with a minor in transportation and logistics from the University of British Columbia in Canada.