

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

Seminar Announcement

*Dynamic Pricing of Enterprise Software with Value
Uncertainty: Motivation for Selling Software as a Service*

by

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Time: 11:00 am – 12:30 pm

Venue: Room 2379, FINA Conference Room (L17/18)

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

**Abstract**

The enterprise software market is seeing the rise of a new business model--selling Software-as-a-Service (SaaS), in which a standard piece of software is owned and managed remotely by the vendor and delivered as a service over the Internet. Despite the hype, questions remain regarding the rise of this reoccurring business model and how it will impact the software market. In this paper, I study software vendors' motivation to offer the lease-based SaaS model as an alternative to perpetual licensing taking into account two characteristics of enterprise software adoption: clients' uncertainty about their valuation for the software and the upfront implementation costs. I consider a standard discrete-time overlapping generations (OLG) model, in which clients do not know but receive a noisy signal about their true valuation for the software prior to adoption and only learn their true valuation after using the application, which requires a sunk implementation cost. The model indicates that the existence of customers' value uncertainty changes the standard results of the durable goods theory. In particular, I show that when the implementation cost is not too low, the vendor would prefer perpetual licensing to lease-based pricing if the high and low-end markets are very different.

Developments in web-based technologies enable the lease-based SaaS model, which requires a lower implementation cost, and hence make lease-based pricing a more profitable option in some product segments. The insights gained from my model are consistent with published SaaS adoption data showing that in some product segments perpetual licensing remains the dominant pricing strategy (for example, the ERP market), while in other product segments vendors and clients are actively embracing the SaaS model (for example, the CRM and HRM market). Moreover, according to the results, a vendor's incentive to offer leasing through SaaS in addition to perpetual licensing may also be driven by the cumulated demand from the low-end market over time.

**Biography**

Mingdi Xin is a Doctoral Candidate in the Department of Information, Operations and Management Sciences at New York University's Stern School of Business. Her research interests generally involve understanding the dynamics of the enterprise software and services market, specifically IT vendors' product and pricing strategies and clients' adoption decisions. Her current research focuses on understanding the rising adoption of the Software-as-a-Service (SaaS) model in the enterprise software market. She has published her work in Information Systems Research and the Proceedings of the International Conference on Information Systems. She holds a Bachelor's degree in Information Sciences from Peking University, China and a Master's degree in Information Systems from the New York University's Stern School of Business.