THE HONG KONG POLYTECHNIC UNIVERSITY
DEPARTMENT OF MANAGEMENT AND MARKETING

Departmental Research Seminar

The Value of Compatibility to a Tied-good Market
By

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Time : 10:30 am – 12:00 nn
Venue : M802

Abstract

In many complementary-good industries, it is common practice for a firm to tie its products to a proprietary standard, making them incompatible with those produced by other firms. In this paper, I use rich individual-level data to study the impact of compatibility in the digital camera and lens industry, where products are tied as a design choice. I simulate the impact of compatibility via a structural model where forward-looking consumers make costly investment decisions on camera and lens, and forward-looking firms compete for demand using razor-and-blade pricing. I find the introduction of compatibility decreases the value of the install base and thus firms' incentives to compete for it. As a result, compatibility raises equilibrium lens prices by 31% to 40% and generates large profit gains. Although tying is a common design choice, it is unlikely to be the right move in this case as it intensifies competition. Conversely, because tying can be pro-competitive, the regulator should not always enforce compatible standards in new industries.

Dr Yufeng Huang is an Assistant Professor in Marketing at the University of Rochester. He obtained a Ph.D. degree in marketing (cum laude) from Tilburg University.

His research interest focuses on the intersection of pricing, product design, and learning by consumers and managers. He has specific research interests to technology and retail industries. His dissertation works are published on *Marketing Science*. Currently, he is working on a few projects, including:

(1) He evaluates whether the design of complementary products should adhere to proprietary or universal standards.

(2) He measures how retail pricing managers learn about a new market and improve pricing policies over time.

(3) He assesses the impact of online shopping technology on the competitive landscape of the retail industry.

At the University of Rochester, he teaches Pricing Analytics and Programming for Analytics at the graduate level, for Master students in analytics and MBA students. He also gives Ph.D. lectures and advises PhD students.

All interested are welcome.

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