The Hong Kong Polytechnic University
Department of Logistics and Maritime Studies
Research Seminar

Bundling in Service Systems

by

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Date: 30 October 2019 (Wednesday)
Time: 10:30am - 11:30am
Venue: M714, Li Ka Shing Tower
The Hong Kong Polytechnic University

(Conducted in English)

Abstract:

In this talk I present two bundling problems in service systems. The first is motivated by the common practice of amusement parks to sell multiple rides as a whole at a single price: customers either purchase the bundle or do not purchase at all. This pricing scheme is in contrast to a la carte pricing, under which the service provider sets a separate price for each service, and customers can choose which service to purchase, if any. The existing theory generally sees bundling as more lucrative, pointing to bundling's ability to reduce customer valuation dispersion and thus enable surplus extraction. However, we find that the prescriptive guidelines from the existing theory can be reversed in service settings that involve congestion- prone delays. Specifically, bundling fails to make more revenue than a la carte when the market size is large or customers are highly delay-sensitive. The second model is motivated by the practice of restaurants to offer either a la carte or set menus, or both, and prepare placed orders in the same kitchen. Correspondingly, we consider a service firm that manages and prices multiple services in a single queue. We identify the service time variability as the key driver of the optimal pricing scheme. When the market size is large, a la carte strictly dominates bundling absent service variability, but is equivalent to bundling under service variability, if any.

Bio:

Allen Wu has been assistant professor at the Department of Industrial Engineering and Decision Analytics at Hong Kong University of Science and Technology since 2018. He received his PhD in Industrial Engineering and Management Sciences from Northwestern University and bachelor in applied mathematics from Shanghai Jiao Tong University. His research interests include service operations, strategic consumers, and the interface between operations and other business disciplines, such as information systems and marketing. His recent work focuses on understanding the applicability of bundling in various service contexts and digital markets. His research has appeared on leading journal *Management Science*.

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All are welcome!