Chen Tang

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Research interests

Operations Management
Revenue Management & Dynamic Pricing
Empirical OM & Data-Driven OM

Education

The Chinese University of Hong Kong, Shenzhen Shenzhen, China
M.Sc. in Data Science 2023 – 2025 (expected)

Shanghai University of Finance and Economics Shanghai, China
B.Mgt. in Business Analytics 2019 – 2023

Research Experience

Algorithmic Collusion of Dynamic Pricing: Past, Present and Future
with Janusz Meylahn and Xavier Lambin Working Paper
Algorithmic collusion emerges when companies utilize reinforcement learning and other AI-driven algorithms to engage in pricing competition, resulting in supra-competitive market prices. In this survey, we explore the development and potential future research directions of algorithmic collusion in competitive dynamic pricing.
The initial solo version is available: PDF, SSRN, Tutorial, Presentation

Regulating Asymmetric Competition of Platform Owners: Evidence from the Korean Accommodation Market
with Sung Kwan Lee and Liu Ming Work in Progress
This paper empirically examines the effect of regulation on the asymmetric competition between the platform owner and third-party firms. Using the Differences-in-Differences approach, we identified that antitrust regulation has significantly improved the operational conditions of third-party firms within the Korean accommodation market.
Initial results were present on CSAMSE 2024, Xiamen, July 2024

Price Competition under Multinomial Logit Demand with Hidden Inventory Information
with Zizhuo Wang Research Project
While price competition with public inventory information has been resolved, the scenario where capacity information is opaque is less understood. In this research, we delve into price competition under the MNL model, where firms can infer the competitor's capacity based on their own demand. The solutions of dynamic programming reveal that firms may experience less profits in an opaque capacity setting depending on the demand-to-capacity ratio.
Research snapshot is available: PDF

Cross-Channel Marketing on E-commerce Marketplaces: Impact and Strategic Budget Allocation.

under supervision of Qiyuan Deng — Research Assistant

This paper optimizes the budget allocation strategy based on a demand function estimated from empirical data, with the core of the process being the accurate estimation of the demand function. In my role as a research assistant, I have conducted data analysis, read related literature, and sought out and tested potential instrumental variables to reduce the bias of parameter estimation.

Working snapshot is available: PDF

Referees

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