THE HONG KONG POLYTECHNIC UNIVERSITY DEPARTMENT OF MANAGEMENT AND MARKETING

Departmental Research Seminar



Understanding Customers' Expectations in Network Product Adoption: A Behavioral Investigation By

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Date : 28 Mar 2024 (THU) Time : 2:30 – 4 pm Venue : M802

Abstract

As information technologies advance, network products are creating strong inter-dependency among customers, posing challenges for marketing strategies. Understanding customer adoption behavior in this context is crucial for managerial decision-making. Prior research uses the fulfilled expectation equilibrium (FEE) to characterize customer expectations. However, this approach, which assumes rational expectations, may not be sufficient to accurately describe the real-world expectations that are often influenced by behavioral biases. To gain further insights into how customers form expectations under network effects, this research takes a behavioral perspective by combining behavioral modeling and controlled lab experiments. The behavioral model, which grounded in cognitive hierarchy (CH) theory and the anchoring-and-adjustment heuristic, reveals a ``rotation-to-middle'' (RtM) effect, where customers underestimate network size at low prices and overestimate it at high prices. Laboratory experiments and structural model estimations confirm this behavioral pattern. A counterfactual analysis suggests that incorporating the RtM effect in a firm's pricing strategy can lead to significant profit gains. This research emphasizes the importance for firms to consider customer's behavioral biases in pricing decisions for network products. The findings of this study contribute to a deeper understanding of customer behavior under network effects and offer valuable guidance for businesses operating in this context.

Prof. Yifan Dou is currently a professor of information systems and business intelligence at School of Management, Fudan University. He obtained the bachelor and doctoral degrees from the School of Economics and Management, Tsinghua University. Prof. Dou's expertise concentrates on the game-theoretical model. His current research interests include pricing of information goods and services, economics of platform technologies and innovations, and the strategic design of data markets and data products. He is currently an associate editor for *Management Science* (IS department) and *Information Systems Research*.

All interested are welcome.



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