

The Hong Kong University of Science and Technology
Dept of Information Systems, Business Statistics and Operations Management
Dept of Industrial Engineering & Decision Analytics
Joint Seminar Announcement



**Trade Credit and Bankruptcy Risk
in Supply Chains: An Experimental Study**
by
Prof. Rihuan HUANG
The Chinese University of Hong Kong, Shenzhen

Date : **20 December 2024 (Friday)**
Time : **10:30 – 11:45 AM**
Venue : **Case Room 1005, LSK Business Building**

Abstract: In practice, supply chain parties often have limited capital, requiring them to seek financing and bear bankruptcy risk. In this paper, we behaviorally investigate a trade credit contract between a supplier and a capital-constrained retailer, the latter of which may face bankruptcy risk. After the supplier proposes a wholesale price, the retailer purchases a quantity through trade credit if its initial capital is insufficient and repays the supplier after demand is realized. If demand is too low, the retailer goes bankrupt. Through a controlled-laboratory experiment with human participants, we investigate how a retailer's exposure to bankruptcy risk, which we vary through its initial capital, affects supply chain decisions and outcomes. We find that the presence of such bankruptcy risk leads to decisions that systematically differ when compared to a setting without bankruptcy risk. Among others, the retailer significantly understocks when exposed to bankruptcy risk and the supplier attempts to offset this effect by offering a lower wholesale price. The resulting effect is that expected profits for the retailer, supplier, and supply chain, are all significantly different than the baseline predictions. To account for these observed decisions, we show that a behavioral model of reference dependence and fairness organizes the data well. Our work demonstrates that the presence of bankruptcy risk for a retailer significantly alters supply chain decisions in systematic ways, which has direct consequences on profits.

Bio: Rihuan Huang is an assistant professor of operations management at School of Management and Economics, The Chinese University of Hong Kong, Shenzhen. His research interests include supply chain contracting, social responsibility, and human-AI interaction. He uses experimental methods to study these topics to generate managerial insights from a behavioral perspective. He received his PhD in operations management from Johnson Graduate School of Management, Cornell University.