Boya Peng

PhD Candidate | 951 CYT, 12 Chak Cheung Street, Shatin, Hong Kong | The Chinese University of Hong Kong

Email: boyapeng@link.cuhk.edu.hk | Website: https://peng-boya.github.io/

Research Interest

Topics: Empirical Operations Management, Supply Chain Management, Operations-Finance Interface

Methodologies: Econometrics, Causal Inference, Text Analysis, Large Language Models

Education

The Chinese University of Hong Kong 2022 - 2027 (Expected)
Ph.D. in Operations Management Hong Kong, China

- Department of Decisions, Operations and Technology, CUHK Business School

Shanghai Jiao Tong University 2015 - 2019
B.A. in Industrial Engineering Shanghai, China

- Department of Industrial Engineering & Management, School of Mechanical Engineering
- GPA 4.05/4.3, Outstanding Graduate, China National Scholarship (2016, 2017)

Research Papers

1. Vernon Hsu, **Boya Peng** and Jing Wu, 2024, Global Supply Chain Rerouting in Response to the U.S.-China Trade War. ***Major Revision*** at ***Manufacturing and Service Operations Management*** (UTD 24)
   - Selected for presentation at the 2024 MSOM Conference
2. Yuxuan Zhang, **Boya Peng** and Jing Wu, 2025, Integrating Operations and Finance for Sustainable Development: Theory, Practice, and Opportunities. ***Major Revision*** at ***Production and Operations Management*** (UTD 24)
3. Kashish Arora, **Boya Peng** and Jing Wu, 2025, Cost Shocks and Production Reorganization: Evidence from India's Goods and Services Tax Reform. ***Under Review*** at ***Management Science*** (UTD 24)

Teaching Experience

The Chinese University of Hong Kong:

Teaching assistant for Financial Data Modeling and Analysis (FMBA)	2025
Teaching assistant for Strategic Management of Innovation (EMBA)	2025
Teaching assistant for Advanced Topics in Global Operations and Supply Chain Strategies (DBA)	2025
Teaching assistant for Statistical Analysis for Business Decisions (Undergraduate)	2024
Teaching assistant for Fintech and Its Applications (Master)	2023
Teaching assistant for Global Supply Chain Management (Master)	2022

Grants and Funding

Co-I, General Research Fund	2025/2026
P-I, Competitive Graduate Student Grant	2023/2024

Selected Presentations

POMSHK Conference, Shenzhen, China	January 2026
MSOM Conference, Minneapolis, USA	June 2024
POMSHK Conference, Hong Kong, China	January 2024

Professional Service

Referee for *Manufacturing & Service Operations Management*, *Production and Operations Management*

Skills

Programming: Python, Stata, C++
Languages: Mandarin (native), English (fluent)
Certificates: Chartered Financial Analyst (CFA) Level I
Industry Experience: Oliver Wyman (2019-2021)

REFERENCES

1. **Prof. Jing Wu**
   Professor, Department of Decisions, Operations and Technology
   CUHK Business School, The Chinese University of Hong Kong
   Email: jingwu@cuhk.edu.hk

2. **Prof. Vernon Ning Hsu**
   Choh-Ming Li Professor, Department of Decisions, Operations and Technology
   CUHK Business School, The Chinese University of Hong Kong
   Email: vhsu@cuhk.edu.hk

3. **Prof. Kashish Arora**
   Assistant Professor, Department of Decisions, Operations and Technology
   CUHK Business School, The Chinese University of Hong Kong
   Email: kashisharora@cuhk.edu.hk

ABSTRACTS

1. **Global Supply Chain Rerouting in Response to the U.S.-China Trade War.**

Abstract: ***Problem definition:*** Concerned about rising geopolitical tensions between the U.S. and China, many U.S. firms in recent years have sought to reduce their dependence on China in an attempt to hedge against potential disruptions in Chinese supply chains. U.S. importers have increasingly turned to intermediary countries like Vietnam and Mexico in order to diversify their supplier base. However, can these importers develop supply chains that are independent from China? Or are they still retaining indirect dependence on China by rerouting their supply chains via these third-party countries? ***Methodology/results:*** Utilizing transaction-level customs import-export data, we develop a novel measure to assess firm-product-level indirect dependence of U.S. importers on China via their suppliers in Vietnam and Mexico. Our findings indicate a substantial increase in indirect dependence on China post-Trade War – indirect dependence via Vietnam and Mexico increased by approximately 21% and 5.5% respectively – suggesting that despite efforts to reduce dependence on China, U.S. supply chains remain indirectly dependent on China via third-party nations. We further explore the role of product channels, observing that more downstream products and products for which China has a significant revealed comparative advantage (RCA) experience greater increases in indirect dependence through Vietnam. In contrast, more upstream products exhibit more substantial increases through Mexico. Decomposing indirect dependence into U.S. import share and suppliers' input dependence on China reveals asymmetric growth patterns: for Vietnam, the latter component grows more significantly, while for Mexico, the former shows a slightly more pronounced increase. ***Managerial implications:*** Our results underscore the necessity for firms to reassess indirect dependencies beyond their first-tier suppliers, and also highlight the complex dynamics of global supply chain responses to bilateral trade disputes.

2. **Integrating Operations and Finance for Sustainable Development: Theory, Practice, and Opportunities.**

Abstract: Sustainable development demands addressing two core challenges: mobilizing financial resources and aligning stakeholder incentives. This paper honors Professor Christopher S. Tang by surveying the operations-finance interface literature through the lens of "Mobilizing Resources" and "Aligning Incentives" framework. We highlight how his seminal work has advanced our knowledge of mitigating SME financing constraints and crafting operationally-informed financial contracts to internalize externalities. We identify a critical gap: while theoretical models for incentive alignment are well-established, empirical evidence remains limited due to the difficulty of analyzing unstructured data. To bridge this gap, we present Large Language Models (LLMs) as a rigorous methodological toolkit for empirical operations management research. We outline a four-step framework—Problem Definition, Model Selection, Prompt Engineering, and Validation—and illustrate its application via a case study that extracts novel data on supplier finance programs from corporate 10-K filings. We conclude by proposing a unified research agenda for advancing future study at the intersection of operations, finance, and sustainability.

3. **Cost Shocks and Production Reorganization: Evidence from India's Goods and Services Tax Reform.**

Abstract: Manufacturing firms routinely face exogenous cost shocks—such as taxes, tariffs, and regulatory shifts—that alter their cost structures, forcing a fundamental trade-off between reorganizing production to minimize direct costs and maintaining established production "recipes" to preserve efficiency. This paper examines this dilemma using India's 2017 Goods and Services Tax (GST) reform as a natural experiment which introduced heterogeneous effective tax changes across plants by unifying taxes and eliminating cascading input taxes. Leveraging granular plant-level data from 72,000 manufacturing facilities over nine years, we employ a continuous difference-in-differences (DiD) design to track plant responses. We find that plants facing larger tax increases systematically shift product portfolios toward lower-rate categories. We distinguish between reclassification (minor product modifications that preserve existing production capabilities) and reorganization (fundamental operational restructuring with new inputs). Resource-constrained plants favor low-cost reclassification, while larger, capital-intensive plants pursue reorganization. These adjustments, however, come at a steep operational cost: total factor productivity (TFP) declines by 2.2 percent for every 10 percentage-point increase in effective tax rates. This

decline is driven by a “quantity-for-quality" substitution in material sourcing, where plants switch to lower-quality domestic inputs to cut costs, eroding material efficiency despite simultaneous gains in labor, capital, and inventory productivity. Taken together, these patterns reveal a clear cost-efficiency trade-off: plants lower their effective tax and working-capital burdens through portfolio shifts, input substitution, and leaner inventories, but accept lower production efficiency in return. Our findings provide actionable insights for managers building operational resilience and for policymakers on mitigating unintended productivity losses from heterogeneous policy shocks.