

## Liang (Leon) Xu

Assistant Professor  
Department of Supply Chain Management and Analytics  
College of Business, University of Nebraska - Lincoln  
HLH 511T, P.O. Box 880491, Lincoln, NE 68588  
Tel: 402-272-3442  
[liang.xu@unl.edu](mailto:liang.xu@unl.edu)

---

### Academic Experience

#### University of Nebraska - Lincoln, College of Business

Assistant Professor of Supply Chain Management and Analytics 2019-present

### Education

#### Smeal College of Business, The Pennsylvania State University

Ph.D. in Supply Chain Management Aug 2019

#### Lingnan College of Business, Sun Yat-sen University

M.S. in Management Science and Engineering Jun 2013

B.S. in Logistics Engineering and Management Jun 2011

#### CUHK Business School, Chinese University of Hong Kong

Visiting Student Jul-Sep 2012

### Research Interests

- Healthcare Operations and Innovations, Pharmaceutical Supply Chains, Data analytics, Behavioral Operations Management.

### Publications

- Liang Xu**, Hui Zhao, Nicholas C. Petruzzi. 2021. Inducing Compliance with Post-market Studies for Drugs Under FDA's Accelerated Approval Pathway. *Manufacturing & Service Operations Management* 23, no. 1: 170-190.
- Hui Zhao, **Liang Xu**, Siemsen Enno. 2020. Inventory Sharing and Demand-Side Underweighting. *Manufacturing & Service Operations Management*, [Articles in Advance](#).
- Gang Chen, Waiman Cheung, Sung-Chi Chu, **Liang Xu**. 2017. Transshipment Hub Selection from a Shipper's and Freight Forwarder's Perspective. *Expert Systems with Applications* 83:396-404.
- Bin Zhang, **Liang Xu**. 2013. Multi-item Production Planning with Carbon Cap and Trade Mechanism. *International Journal of Production Economics* 144(1):118-127.

### Papers in Review Process

- Liang Xu**, Hongmin Li, Hui Zhao. 2020. Outcome-Based Reimbursement: The Solution to High Drug Spending? Under second review (major) at *Manufacturing & Service Operations Management*.
- Liang Xu**, Mani Vidya, Hui Zhao. 2020. Not a Box of Nuts and Bolts: Are Specialty Distributors the Right Channel for Specialty Drugs? Under revision (major) at *Production and Operations Management*.

## Work-In-Progress

1. **Liang Xu**. The Effectiveness of Substance Abuse Treatment Services in Combating the Opioid Crisis. Sponsored by NSF-funded Center for Health Organization Transformation (CHOT) at The Pennsylvania State University.
2. **Liang Xu**, Linzhou Xue. Data-driven Inventory Control with ARIMA Demand Process.
3. Valery Pavlov, **Liang Xu**. The Impact of Social Comparison on Newsvendor Decisions: An Experimental Investigation.

## Published Business Cases

- Chen G. and **Xu L**. 2012. 7 Days Inn: Operations Strategy. Ivey Case Library, ID: 9B12D023.
  - EFMD Case Writing Award, “highly commended” by the case writing competition sponsor in the Emerging Global Chinese Competitors Category.
- Chen G. and **Xu L**. 2012. Teaching Note 7 Days Inn: Operations Strategy. Ivey Case Library, ID: 8B12D023.

## Teaching Experience

### Instructor, College of Business, University of Nebraska – Lincoln

- SCMA 350 – Business Analytics and Information Analysis
  - Learn to explore patterns in big data and communicate findings through effective visuals with Excel and Tableau.
  - Statistical power tools: Confidence Interval, A/B Test and Control Charts.
  - Learn the linear and logistic regression for prediction.
  - Learn the exponential smoothing for time series forecasting.

### Instructor, College of Business, University of Nebraska – Lincoln

- SCMA 450 – Data Modelling and Computing
  - Learn the fundamentals of R programming.
  - Clean and manipulate and data with *tidyverse* and *data.table*
  - Visualize data with *ggplot2*.
  - Learn linear regression and model selection with cross validation.
  - Learn machine learning models with *caret*.

### Instructor, Smeal College of Business, The Pennsylvania State University

- SCM 421 (undergraduate core) – Supply Chain Analytics Fall 2016
  - The course helps students to acquire the quantitative supply chain modeling and analytics skills through three modules: spreadsheet engineering, data manipulation & visualization, and simulation & optimization.
  - Instructor evaluation: 6.09/7
  - Course evaluation: 6.39/7

### Teaching Assistant, Lingnan College of Business, Sun Yat-sen University

- Operations Management (Joint EMBA with Carlson School of Management) Fall 2012, 2013
- Operations Management (International MBA) Fall 2011
- Management Information Systems (undergraduate) Fall 2010

## Invited Talks and Presentations

*INFORMS Annual Conference, Virtual Conference, Nov 2020*

- Outcome-Based Reimbursement: The Solution to High Drug Spending?
- How does Medication-Assist Treatment Help in Combating the Opioid Epidemic?

*INFORMS Annual Conference, Seattle, WA, Oct 2019*

- Outcome-Based Reimbursement: The Solution to High Drug Spending?
- How does Medication-Assist Treatment Help in Combating the Opioid Epidemic?

*2019 Spring CHOT IAB (Industry Advisory Board) Meeting, Malvern, PA, Apr 2019.*

- A Prediction, Prevention, and Intervention Model to Combat the Opioid Epidemic.

*INFORMS Annual Conference, Phoenix, AZ, Nov 2018.*

- Outcome-based Reimbursement for Pharmaceuticals with Uncertain Effectiveness.

*US Food and Drug Administration (FDA), Silver Spring, MD, Sep 2018.*

- Inducing Compliance with Post-market Studies for Drugs under FDA's Accelerated Approval Pathway.

*POMs Annual Conference, Houston, TX, May 2018.*

- Inducing Compliance with Post-market Studies for Drugs under FDA's Accelerated Approval Pathway.
- A Behavioral Perspective on Inventory Sharing.
- Not a Box of Nuts and Bolts: Are Specialty Distributor the Right Channel for Specialty Drugs?

*INFORMS Annual Conference, Houston, TX, Nov 2017.*

- Inducing Compliance with Post-market Studies for Drugs under FDA's Accelerated Approval Pathway.
- A Behavioral Perspective on Inventory Sharing.

*POMs Annual Conference, Seattle, WA, May 2017.*

- Accelerated Approval: Gatekeeper or Roadblock?

*INFORMS Annual Conference, Nashville, TN, Nov 2016.*

- Accelerated Approval: Gatekeeper or Roadblock?

*POMs Annual Conference, Orlando, FL, May 2016.*

- Not a Box of Nuts and Bolts: Distribution Channel Choice for Specialty Drugs.

*INFORMS Annual Conference, Philadelphia, PA, Nov 2015.*

- Determinants of Distribution Channel Choice in Pharmaceutical Industry – Specialty Drugs.

*POMs Annual Conference, Washington D.C., May 2015.*

- Gatekeeper or Roadblock: Optimal Evidence Generation and Access for New Drug Regulation.

## Professional Experience

- Reviewer for *Manufacturing & Service Operations Management, Production and Operations Management, Decision Sciences, NSF Proposal*, etc.
- Session Chair or Co-chair
  - Data-driven Decision Making in Pharmaceutical and Healthcare Supply Chains, INFORMS Annual Conference, Phoenix, AZ, Nov 2018.
  - Study of the Pharmaceutical Supply Chain, INFORMS Healthcare Conference, July 2021.
- Participant, 2017 POMs Doctoral Colloquia, 2017 INFORMS Doctoral Colloquia, 2018 CSCMP Doctoral Symposium, 2019 INFORMS New Faculty Colloquia.

## **Awards and Honors**

- Industry Studies Association Dissertation Award, Finalist. 2020.
- Jeanne and Charles Rider Graduate Fellowship, Smeal College of Business, 2017, 2018.
  - The highest research award at Smeal Ph.D. level.
- Ossian R. MacKenzie Doctoral Teaching Award, Smeal College of Business, 2017.
- First prize, Structural Modeling Applications for Research in Technology (SMART) Workshop Competition, Carnegie Mellon University, 2015.
- National Scholarship for Graduate Students, Sun Yat-sen University, 2012.
- Graduate School Fellowship, Sun Yat-sen University, 2011, 2012.

## **Media Mentions**

- Large Number of Drug Manufacturers Fail to Complete FDA's Accelerated Approval Program, <https://www.informs.org/About-INFORMS/News-Room/Press-Releases/New-Research-Reports-Over-One-third-of-Pre-Approved-Prescription-Drugs-Have-Not-Completed-the-FDA-Approval-Process>.
- Xu Examines Mechanism to Speed Drug Approval Process. <https://news.unl.edu/newsrooms/today/article/xu-examines-mechanism-to-speed-drug-approval-process/>