# Hongmin Li

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# **Education**

- Ph.D. in Operations Management, Massachusetts Institute of Technology, 2007
- Master of Engineering in Logistics, Massachusetts Institute of Technology, 2002
- Master of Science in Computer Engineering, Syracuse University, 1998
- Master of Science in Chemistry, University of Michigan, 1997
- Bachelor of Science in Chemistry, Beijing University, 1995

# Academic Experience

• Professor

Department of Supply Chain Management, W.P. Carey School of Business Arizona State University, 2020–present

- Associate Professor Department of Supply Chain Management, W.P. Carey School of Business Arizona State University, 2014–2020
- Assistant Professor Department of Supply Chain Management, W.P. Carey School of Business Arizona State University, 2007–2014

#### **Industrial Experience**

- Research Intern, Supply Chain Department 3Com, Inc. Marlborough, MA, 2005 2006
- Software Engineer Open Market Inc. Burlington, MA, 2000 – 2001 Tickets.Com Inc. Syracuse, NY, 1998 – 2000

### **Principal Areas of Research**

- Operations and Pricing Decisions for Product Transitions Pricing and revenue management Demand forecasting Inventory, production, and capacity planning
- Supplier Management and Incentive Designs in Supply Chain Dynamic contract, incentive designs, competition in supply chain

### **Publications**

(\*student or postdoc co-author, \*\*industry coauthor; lead author listed first)

#### • Published or Accepted Papers at Peer-reviewed Journals

- 1. Hongmin Li and Scott Webster, "Technical Note Optimizing risk-balancing return under discrete choice models," forthcoming, *Operations Research*
- 2. Hongmin Li and Scott Webster, "Technical Note Risk sensitivity and firm power: price competition with mean<sup>2</sup>-variance profit objective under Multinomial Logit demand," forthcoming, *Operations Research*
- 3. Woonghee T. Huh and Hongmin Li, "Product-line pricing with dual objective of profit and customer utility," forthcoming, *Productions and Operations Management*
- 4. \*Xu, Liang, Hongmin Li, and Hui Zhao, "Outcome-based reimbursement: the solution to high drug spending?"2022, *Manufacturing & Service Operations Management*, 24(4), 2029-2047
- 5. Huh, Woonghee T. and Hongmin Li (2022), "Technical Note: Optimal pricing under multiple-discrete customer choices and diminishing return of consumption," *Operations Research* 70(2): 905-917
- Li, Hongmin, Woonghee T. Huh, \*Matheus Carioca Sampaio, \*\*Naiping Keng (2021), "Planning production and equipment qualification under high process flexibility," *Production and Operations Management* 30(10): 3369-3390
- 7. Li, Hongmin (2020). "Optimal pricing under diffusion-choice models," *Operations Research*, 68(1):115-133
- Li, Hongmin, Scott Webster, and \*Gwangjae Yu (2020). "Product design under Multinomial Logit choices: optimization of quality and prices in an evolving product line," *Manufacturing & Service Operations Management* 22(5): 1011-1025
- Li, Hongmin, Scott Webster, \*\*Nicholas Mason, and \*\*Karl Kempf (2019). "Product-line pricing under discrete Mixed Multinomial Logit demand," *Manufacturing & Service Operations Management*, 21(1):14-28 (First-prize, 2017 M&SOM Practice-based Research Competition)
- 10. Farahat, Amr, Woonghee T. Huh, and Hongmin Li (2019). "On the relationship between quantity pre-commitment and Cournot games," *Operations Research*, 67(1):109-122
- 11. \*Inkaya, Tulin, Dieter Armbruster, Hongmin Li, and \*\*Karl G. Kempf (2018). "Product variety strategies for vertically differentiated products in two stage production," *International Journal of Production Research*, 56(17):5930-5944

- 12. Li, Hongmin, and Scott Webster (2017). "Optimal pricing of correlated product options under the Paired Combinatorial Logit model," *Operations Research*, 65(5): 1215-1230
- Eftekhar, Mahyar, Hongmin Li, Luk N. Van Wassenhove, and Scott Webster (2017). "The role of media exposure on coordination in the humanitarian setting," *Production and Operations Management*, 26(5): 802-816. (Runner-up, 2015 POMS College of Humanitarian Operations & Crisis Management Best Paper Award)
- 14. Huh, Woonghee T. and Hongmin Li (2015). "Technical Note: Pricing under the nested attraction model with a multi-stage choice structure," *Operations Research*, 63(4): 840-850
- Yin, Rui, Hongmin Li, and Christopher S. Tang (2015). "Optimal pricing of two successive-generation products with trade-in options under uncertainty," *Decision Sciences*, 46(3), 565-595
- 16. Li, Hongmin, Stephen C. Graves, and Woonghee T Huh (2014), "Optimal capacity conversion for product transitions under high service requirements," *Manufacturing & Service Operations Management*, 16(1):46-60
- \*Navarro-Barrientos, Jesus-Emeterio, Dieter Armbruster, Hongmin Li, \*\*Morgan Dempsey, and \*\*Karl G. Kempf (2014). "Characterization and analysis of sales data for the semiconductor market: an expert system approach," *Expert Systems with Applications*, 41:893-903
- 18. \*Adriaansen, Teun, Dieter Armbruster, \*\*Karl G. Kempf, and Hongmin Li (2013), "An agent model for the high-end gamers market," *Advances in Complex* Systems, 16(7)
- 19. Li, Hongmin, Dieter Armbruster, and \*\*Karl G. Kempf (2013), "A Population-growth model for multiple generations of technology products," *Manufacturing & Service Operations Management*,15(3): 343-360
- 20. Li, Hongmin, Hao Zhang, and Charles H. Fine (2013), "Dynamic business share allocation in a supply chain with competing suppliers," *Operations Research*, 61(2) : 280-297
- Li, Hongmin and Woonghee T. Huh (2012), "Optimal pricing for short life-cycle products when customer price sensitivity varies over time," *Naval Research Logistics*, 59(7): 552-576
- 22. Li, Hongmin and Stephen C. Graves (2012), "Pricing decisions during inter-generational product transition," *Production and Operations Management*, 21(1): 14-28
- 23. Li, Hongmin, Yimin Wang, Rui Yin, Thomas J. Kull, and Thomas Y. Choi (2012), "Target pricing: demand-side versus supply-side approaches," *International Journal of Production Economics*, 136 (1): 172-184

- 24. Li, Hongmin and Woonghee T. Huh (2011), "Pricing multiple products with the Multinomial Logit and Nested Logit models: concavity and implications," *Manufacturing & Service Operations Management*, 13(4): 549-563
- 25. Li, Hongmin, Stephen C. Graves, and Donald B. Rosenfield (2010), "Optimal planning quantities for product transition," *Production and Operations Management*, 19(2): 142-155

### • Peer-reviewed Proceedings

 \*Navarro-Barrientos, Jesus-Emeterio, Dieter Armbruster, Hongmin Li, \*\*Morgan Dempsey, \*\*Karl G. Kempf (2013), "Towards automated extraction of expert system rules from sales data for the semiconductor market", in I. Batyrshin and M. González Mendoza (Eds.): *Mexican International Conference on Artificial Intelligence - MICAI 2012, Part II, Lecture Notes in Artificial Intelligence LNAI 7630, Springer*, pp. 421–432.

#### • Papers under Review or in Progress

- 1. Heng Zhang, \*Hossein Piri, Woonghee T. Huh and Hongmin Li, "Assortment Optimization Under Multiple-Discrete Customer Choices."
- 2. \*Zhen Chen, Heng Zhang, Hongmin Li, and Scott Webster, "Multi-Objective Assortment Optimization: Profit, Risk, Customer Utility, and Beyond."
- 3. Harish Goda, \*Yuchi Yang, Hnongmin Li, "Competitive Pricing in the Presence of Manipulable Information in Online Platform."
- 4. \*Binghan Kou, Yuqi Yang, Hongmin Li, "Discrete Choice Model with Habituation"
- 5. \*Gwangjae Yu, Hongmin Li and Scott Webster, "Capacitated and bounded pricing under Multinomial Logit choices."

### **Grants Awarded**

- 1. Dean's Award for Excellence Research Grant, 2017 (Amount \$20,000), 2018 (Amount \$15,000), 2019 (Amount \$20,000), 2020, 2021, 2022 (Amount \$15,000).
- Principal Investigator, "Machine Qualification Decision Solver", Sponsored by Semiconductor Research Corporation (2012-IN-2377), 2012-2013, ASU Project ID: 026093, Amount \$60,000.
- Principal Investigator, "Equipment Fungibility Decision Solver", Sponsored by Semiconductor Research Corporation (2011-IN-2215), 2011-2012, ASU Project ID: 025193, Amount \$60,000.
- 4. Co-PI, "Agent Based Simulations for Sales Forecasting", Sponsored by Intel Research Council, 2010-2012. ASU Project ID: 023320, Amount: \$147,472, PI: Dieter Armbruster

5. Principal Investigator, "Forecasting for Inter-generational Product Transitions", Sponsored by Intel Research Council, 2008-2010, ASU Project ID: 021666, Amount \$80,000, Co-PI: Dieter Armbruster

### **Professional Award**

- 1. W. P. Carey Dean's Mid-Career Research Award 2022
- 2. Nominated for 2021 ASU Outstanding Faculty Mentor Award
- 3. Finalist for 2019 W.P. Carey Outstanding Doctoral Faculty Award
- 4. First-prize, 2017 M&SOM Practice-based Research Competition
- 5. Runner-up, 2015 POMS College of Humanitarian Operations & Crisis Management Best Paper Award

#### **Presentations**

- Li, Hongmin, and Scott Webster (2022). "Risk-sensitive Pricing Under Discrete Choice Models," The Institute for Operations Research and the Management Sciences (INFORMS) International Conference, Vancouver, Canada
- 2. Huh, Woonghee T., and Hongmin Li, (2021). "Product-line pricing with dual objective of profit and customer utility," The Institute for Operations Research and the Management Sciences (INFORMS) Annual Conference, Online
- 3. Huh, Woonghee T., and Hongmin Li, (2021). "Optimal Pricing under Multiple-Discrete Choices and Diminishing Return of Consumption," Production Operations Management Society Annual Conference, Online
- 4. Yu, Gwangjae, Hongmin Li, and Scott Webster (2019). "Capacitated and Bounded Pricing Under Multinomial Logit Choices," Production Operations Management Society Annual Conference, Washington D.C. The Institute for Operations Research and the Management Sciences (INFORMS) Annual Conference, Seattle, WA.
- Li, Hongmin, (2018). "Optimal pricing under diffusion-choice models," Production Operations Management Society Annual Conference, Austin, TX. The Institute for Operations Research and the Management Sciences (INFORMS) Annual Conference, Phoenix, AZ.
- Li, Hongmin, Scott Webster, Nicholas Mason, and Karl Kempf (2017). "Product-line pricing under discrete Mixed Multinomial Logit demand," Production Operations Management Society Annual Conference, Seattle, WA.

Manufacturing and Operations Management Society Annual Conference, Chapel Hill, NC.

- 7. Li, Hongmin, and Scott Webster (2016). "Pricing Correlated Product Options," Informs International Meeting, Hawaii
- 8. Eftekhar, Mahyar, and Hongmin Li (2015). "The Role of Media Exposure in Humanitarian Coordination," Production Operations Management Society Annual Conference, Washington, D.C.
- 9. Li, Hongmin, Amr Farahat, and Woonghee T. Huh (2014), "Quantity Pre-commitment and Cournot Equivalence," The Institute for Operations Research and the Management Sciences (INFORMS) Annual Conference, San Francisco, CA.
- 10. Eftekhar, Mahyar, and Hongmin Li (2014), "Horizontal Coordination in Humanitarian Operations," The Institute for Operations Research and the Management Sciences (INFORMS) Annual Conference, San Francisco, CA.
- 11. Li, Hongmin, and Woonghee T. Huh (2013), "Pricing under the Nested Attraction Model with a Multi-stage Choice Structure," The Institute for Operations Research and the Management Sciences (INFORMS) Annual Conference, Minneapolis, MN.
- 12. Li, Hongmin, Hao Zhang, and Charles H. Fine (2013), "Dynamic Business Share Allocation in a Supply Chain with Competing Suppliers," Production Operations Management Society Annual Conference, Denver, CO.
- 13. Yin, Rui, Hongmin Li and Christopher S. Tang (2013), "Optimal Pricing of Two Successive-Generation Products with Trade-in Options under Uncertainty," POMS Annual Conference, Denver.
- Li, Hongmin (2013), "Managing Multiple Differentiated Technology Products: Models of Optimal Pricing and Long-range Forecasting," <u>Invited presentation</u>, Washington University, Olin School of Business.
- 15. Armbruster, Dieter, Tulin Inkaya, Karl G. Kempf, Morgan Dempsey, and Hongmin Li (2013), "Characterizing and Forecasting the Market Influence of the Original Equipment Manufacturers," INFORMS Analytics conference, San Antonio, TX
- Armbruster, Dieter, Tulin Inkaya, Karl G. Kempf, Morgan Dempsey, and Hongmin Li (2013), "Competitive Product Differentiation in a Three Level Market," SIAM CSE13 Conference on Computational Science and Engineering.
- 17. Li, Hongmin and Woonghee T. Huh (2012). "Optimal Pricing for a Short Life-cycle Product when Customer Price-sensitivity varies over Time," INFORMS Annual Conference, Phoenix.

- Inkaya, Tulin, Dieter Armbruster, Karl G. Kempf, Morgan Dempsey, and Hongmin Li (2012), "Variety Competition for Vertically Differentiated Products," INFORMS Annual Conference, Phoenix.
- 19. Inkaya, Tulin, Hongmin Li, Dieter Armbruster, Karl G. Kempf (2012), "Variety Competition for Vertically Differentiated Products," POMS Annual Conference, Chicago.
- 20. Li, Hongmin (2012), "Managing Multiple Differentiated Technology Products: models of optimal pricing and Long-range Forecasting," <u>Invited presentation</u>, University of Texas at Dallas, Naveen Jindal School of Management, Richardson, TX
- 21. Li, Hongmin, Dieter Armbruster, and Karl G. Kempf (2012), "A Population-growth Model for Multiple Generations of Technology Products," MSOM Annual Conference, New York City
- 22. Zhang, Hao, Hongmin Li, and Charles H. Fine (2012), "Dynamic Performance-Based Business Share Allocation with Substitutable Suppliers," <u>Invited presentation</u>, Naveen Jindal School of Management, University of Texas at Dallas, Richardson, TX
- 23. Zhang, Hao, Hongmin Li, and Charles H. Fine (2012), "Dynamic Performance-Based Business Share Allocation with Substitutable Suppliers," <u>Invited presentation</u>, Sauder School of Business, University of British Columbia, Vancouver, BC Canada
- 24. Zhang, Hao, Hongmin Li, and Charles H. Fine (2011), "Dynamic Performance-Based Business Share Allocation with Substitutable Suppliers," <u>Invited presentation</u>, Rady School of Management, University of California, San Diego, CA
- 25. Zhang, Hao, Hongmin Li, and Charles H. Fine (2011), "Dynamic Performance-Based Volume and Margin Contracts with Substitutable Suppliers," MSOM Annual Conference, Ann Arbor.
- 26. Li, Hongmin and Woonghee T. Huh (2011), "Pricing Multiple Differentiated Products using the Logit and Nested Logit Models," MSOM Annual Conference, Ann Arbor.
- 27. Zhang, Hao, Hongmin Li, and Charles H. Fine (2011), "Motivating Suppliers in a Dynamic Moral-Hazard Environment," POMS Annual Conference, Reno.
- 28. Zhang, Hao, Hongmin Li, and Charles H. Fine (2011), "Dynamic Performance-Based Business Share Allocation with Substitutable Suppliers," <u>Invited presentation</u>, Gary Anderson Graduate School of Management, University of California, Riverside, CA
- 29. Li, Hongmin, Stephen C. Graves, and Woonghee T. Huh (2011), "Pricing Multiple Differentiated Products using the Logit and Nested Logit Models," <u>Invited presentation</u>, University of British Columbia, Sauder School of Business.

- 30. Li, Hongmin, Woonghee T. Huh (2010). "Pricing Multiple Products with the Multinomial Logit and Nested Logit Models," INFORMS Annual Conference, Austin.
- 31. Zhang, Hao, Hongmin Li, and Charles H. Fine (2010), "Motivating Suppliers in a Dynamic Moral Hazard Environment," INFORMS Annual Conference, Austin.
- 32. Li, Hongmin and Woonghee T. Huh (2009), "Pricing for a Product Life Cycle," MSOM Annual Conference, Boston.
- 33. Li, Hongmin and Charles H. Fine (2009), "A Principal Agent Model for Long-run Performance Contract Using Margin or Volume Incentives," INFORMS Annual Conference, San Diego.
- 34. Li, Hongmin (2009), "Research on Inventory, Pricing, and Capacity Planning for Multiple Generations of Technology Products," <u>Invited presentation</u>, Arizona State University, School of Computing, Informatics, and Decision Systems Engineering, Tempe, AZ.
- 35. Li, Hongmin, Yimin Wang, Rui Yin, Thomas J. Kull, Thomas Y, Choi (2009), "Target Pricing: Demand-Side versus Supply-Side Approaches," <u>Invited presentation</u>, Arizona State University, Department of Supply Chain Management, Tempe, AZ.
- 36. Li, Hongmin, Yimin Wang, Rui Yin, Thomas J. Kull, Thomas Y, Choi (2009), "On the Value of Joint Supplier Improvement in Target Pricing," INFORMS Western Regional Conference, Tempe, AZ
- 37. Li, Hongmin, Stephen C. Graves (2008), "Pricing Decisions during Inter-generational Product Transition," INFORMS Annual Conference. Washington D.C.

#### **Teaching**

#### • Courses Taught

"SCM 516 Descriptive and Predicative Supply Chain Analytics" Arizona State University, Fall semesters 2014-2022
"SCM 432 Controls and Supply Chain Management" Arizona State University, Spring semesters 2014-2015
"SCM 479 Supply Chain Strategy" Arizona State University, Fall semesters 2007-2012
"SCM 455 Purchasing Research and Negotiations" Arizona State University, Spring semester 2009

#### • Dissertations Supervised

Gwangjae Yu, Ph.D., July 2021 Feng Lin, DBA, April 2021 Jian Jin, Jian Xiang, DBA, 2022

#### • Current Doctoral and Postdoc Advising

Ph.D. students: Zhen Chen, Yuqi Yang Postdoc: Binghan Kou DBA students: Li Liu, Chaofeng Wang, Zhixiang Zhao, Wei Zhou, Kanda Lu, Ling Sun

#### **Professional and Institutional Service**

#### • Editorial Service

- 1. Senior Editor, Production and Operations Management 2017-present
- 2. Associated Editor and Academic Committee Member, 2020-22 MSOM Practice-Based Research Competition
- 3. Editorial Review Board of IEEE Transactions on Engineering Management
- 4. Journal Referee
  - a. Management Science
  - b. Manufacturing & Service Operations Management
  - c. Operations Research
  - d. Production and Operations Management
  - e. Decision Sciences
  - f. International Journal of Production Economics
  - g. INFORMS Journal on Computing
  - h. INFORMS Journal on Optimization
  - i. Operations Research Letters
  - j. Operations Research Perspectives

#### • Award Committee Service

- 1. Committee member, Informs 2023 I Industry Engagement Award
- 2. Committee chair, Informs 2023 Prize for Teaching ORMS Practice
- 3. Committee member, Informs 2022 Prize for Teaching ORMS Practice

#### • Conference Service

- 1. MSOM Track Co-Chair, INFORMS 2023 Annual conference, Phoenix
- 2. Program Co-Chair, POMS 2021 Annual conference, online
- 3. POM in Practice Track Co-Chair, POMS 2019 Annual conference, Washington D.C.
- 4. MSOM Track Co-Chair, INFORMS 2018 Annual conference, Phoenix
- 5. Session Chair, POMS 2019 Annual conference, Washington D.C.
- 6. Session Chair, INFORMS International meeting 2016, Hawaii.
- 7. Session Chair, INFORMS 2014 Annual conference, San Francisco.
- 8. Session Chair, INFORMS 2013 Annual conference, Minneapolis.
- 9. Session Chair, POMS 2013, Denver.
- 10. Organizing Committee, Contributed Sessions Track Co-chair, INFORMS 2012, Phoenix.

- 11. Session Chair, INFORMS 2012 Annual conference, Phoenix.
- 12. Session Chair, INFORMS 2011 Annual conference, Charlotte.
- 13. Session Chair, INFORMS 2010 Annual conference, Austin.

#### • Department Committee Service

- 1. Chair, Doctoral Committee (2020-2022)
- 2. Co-chair, Faculty Recruiting Committee (2018-2019)
- 3. Faculty Recruiting Committee (2016-2017)
- 4. Analytics Committee (2016-present)
- 5. Personnel Committee (2015-present)
- 6. Committee to implement a student knowledge acquisition assessment process required for AACSB accreditation (2010)
- 7. Undergraduate Program Committee (2007-2009, 2011-2017)

#### • University and College Service

- 1. W.P. Carey Post-tenure Review Committee (2021-2022)
- 2. Chair, University Senate Personnel Committee (2018-2019)
- 3. University Senate Personnel Committee (2017-2019)
- 4. Academic Senate Representative (2016-2019)
- 5. W.P. Carey China DBA program, Thesis Advisor, RIA II (2018-present)
- 6. Participated in Faculty Involvement Meeting with AACSB Continuing Accreditation Reviewers (2019)