

HYODUK SHIN

Curriculum Vitae

Rady School of Management
University of California - San Diego
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Academic Appointment

- 07/2012 - Rady School of Management, University of California - San Diego.
 - ◊ Associate Professor, 07/2015 - current.
 - ◊ Assistant Professor, 07/2012 - 06/2015.

- 07/2008 - 06/2012, Kellogg School of Management, Northwestern University.
 - ◊ Assistant Professor, 09/2009 - 06/2012.
 - ◊ Jacobs Scholar, 07/2008 - 08/2009.

Education

- PhD, Graduate School of Business, Stanford University, June 2008.
 - ◊ Field: Operations, Information and Technology
 - ◊ Thesis: *Essays on the Role of Competition in Operations Management*
 - ◊ Dissertation Advisors: Prof. Evan L. Porteus and Prof. Tunay I. Tunca
 - ◊ Lieberman Fellow (2006-2007)

- MS, Statistics, The University of Chicago, March 2003.
 - ◊ Thesis Topic: *Comparison of hierarchical Bayesian models for estimating prevalence and test accuracy in the absence of a gold standard*
 - ◊ Thesis Advisor: Prof. Michael D. Larsen

- MS, Management Engineering, KAIST Graduate School of Management, August 2001.
 - ◊ Thesis Topic: *Probabilistic Neural Network for Combining Forecasts*
 - ◊ Thesis Advisor: Prof. D. B. Jun

- BS, Industrial Engineering, KAIST, February 1997.

Research Interests

- Collaboration and information sharing in supply chains
- Forecasting and innovation investments in supply chains
- Open source software and network securities
- The motion picture industry and Operations/Marketing interface

Publication and Working Papers

1. Feasting on Leftovers: Strategic Use of Shortages in Price Competition Among Differentiated Products, 2010, *Manufacturing & Service Operations Management*, **12**(1), 140–161, Joint work with Evan L. Porteus and Tunay I. Tunca.
2. The Effect of Competition on Demand Forecast Investments and Supply Chain Coordination, 2010, *Operations Research*, **58**(6), 1592–1610, Joint work with Tunay I. Tunca.
3. Underlying Consumer Heterogeneity in Markets for Technology-Intensive Services with Network Effects, 2012, *Information Systems Research*, **23**(4), 1322–1341, Joint work with Marius F. Niculescu and Seungjin Whang.
4. Licensing and Competition for Services in Open Source Software, 2013, *Information Systems Research*, **24**(4), 1068–1086, Joint work with Terrence August and Tunay I. Tunca.
5. The Impact of the Manufacturer-hired Sales Agent on a Supply Chain with Information Asymmetry, 2014, *Manufacturing & Service Operations Management*, **16**(1), 76–88, Joint work with Neda Ebrahimi and Seyed Iravani.
6. Cloud Implications on Software Network Structure and Security Risks, 2014, *Information Systems Research*, **25**(3), 489–510, Joint work with Terrence August and Marius F. Niculescu.
7. Designing Incentives for Cybersecurity, 2014, *Communications of ACM*, **57**(11), 43–46, Joint work with Terrence August and Robert August.
8. The Impact of Contracts and Competition on Upstream Innovation in a Supply Chain, 2015, *Production and Operations Management*, **24**(1), 134–146, Joint work with Jingqi Wang.
9. Optimal Timing of Sequential Distribution: The Impact of Congestion Externalities and Day-and-Date Strategies, 2015, *Marketing Science*, **34**(5), 755–774, Joint work with Duy Dao and Terrence August.

10. Public Forecast Information Sharing in a Market with Competing Supply Chains, 2016, *Management Science*, **62**(10), 2994–3022, Joint work with Noam Shamir.
11. Incentives for Forecast Information Sharing under Simple Pricing Mechanisms, 2016, *Information Exchange in Supply Chain Management*, Editors: Albert Y. Ha and Christopher S. Tang, Joint work with Noam Shamir.
12. Strategic Communication for Capacity Alignment with Pricing in a Supply Chain, 2017, *Management Science*, **63**(12), 4366–4388, Joint work with Leon Yang Chu and Noam Shamir.
13. Sharing Aggregate Inventory Information with Customers: Strategic Cross-selling and Shortage Reduction, 2018, *Management Science*, **64**(1), 381–400, Joint work with Ruomeng Cui.
14. The Perils of Sharing Information in a Trade Association under a Strategic Wholesale Price, 2016, *Forthcoming to the Special Issue of Production and Operations Management on “Operations Management and Information Systems Interface”*, Joint with Noam Shamir.
15. Generating Value through Open Source: Software Service Market Regulation and Licensing Policy, 2018, *Information Systems Research*, **29**(1), 186–205, Joint work with Terrence August and Tunay I. Tunca.
16. Inclusive Innovation: Broader Market Coverage for Innovative Products with Deliberate Supply Chain Leadership, 2018, *Under review for 3rd round to Manufacturing & Service Operations Management: Special Issue on Value Chain Innovations in Developing Economies*, Joint work with Vish Krishnan, Junghee Lee and Oleksiy Mnyshenko.
17. Business Models for Technology-Intensive Supply Chains, 2018, *Under review for 2nd round to Management Science*, Joint work with Vish Krishnan and Junghee Lee.
18. The Optimal Innovation Decision for an Innovative Supplier in a Supply Chain, 2017, *Working paper*, Joint work with Jingqi Wang.
19. Information Sharing in Supply Chain of Durable Goods, 2018, *Working paper*, Joint work with Neda Khanjari and Seyed Iravani.
20. Cybersecurity Investment and Information Sharing among Competing Firms, 2017, *Work-in-progress*, Joint work with Noam Shamir.

Invited Seminars and Conferences

- 2016:
 - ◊ School of Business, The University of Hong Kong

- ◇ HKUST Business School
- ◇ College of Business, University of Illinois, Urbana-Champaign
- ◇ University of California, Riverside
- 2015:
 - ◇ Southern California Operations Research/Operations Management Day, UCLA Anderson
 - ◇ Desautels Faculty of Management, McGill University
- 2014:
 - ◇ Columbia GSB
 - ◇ UCLA Anderson
 - ◇ Ross School of Business, University of Michigan
 - ◇ Michael G. Foster School of Business, University of Washington
- 2013:
 - ◇ NYU Stern School of Business
 - ◇ Leavey School of Business, Santa Clara University
 - ◇ Paul Merage School of Business, University of California - Irvine
- 2012:
 - ◇ Rady School of Management, University of California - San Diego
 - ◇ UNC Kenan-Flagler Business School
 - ◇ USC Marshall School of Business
- 2011:
 - ◇ Emory Goizueta Business school
 - ◇ Industrial and Systems Engineering, Georgia Institute of Technology
 - ◇ Scheller College of Management, Georgia Institute of Technology
- 2010:
 - ◇ Workshop: New Product Development, Innovation and Sustainability, Kelley School of Business, Indiana University
 - ◇ Stanford Graduate School of Business
- 2009:
 - ◇ Revenue Management conference, Kellogg School of Management, Northwestern University
- 2008:
 - ◇ Columbia University

- ◇ Indiana University
 - ◇ London Business School
 - ◇ Northwestern University
 - ◇ Queen’s University
 - ◇ Southern Methodist University
 - ◇ Stanford University (2005)
 - ◇ UC Berkeley
 - ◇ UC San Diego
 - ◇ University of Chicago
 - ◇ University of Notre Dame
 - ◇ USC
 - ◇ UT Austin
 - ◇ UT Dallas
 - ◇ University of Toronto
 - ◇ University of Wisconsin Madison
 - ◇ Yale University
- Session chairs and Presentations at Annual Conferences: CIST, INFORMS, MSOM, POMS, and WISE.
 - *A Combining Forecast Method using a Probabilistic Neural Network*, 2000, Joint work with D. B. Jun, S. K. Kim and J. J. Lee., The Tenth Japan and Korea Joint Conference of Statistics, Beppu, Japan.

Media Mentions and Other Publications

- *Services Market Is Key to Open Source Software:*
 - ◇ *Stanford Knowledgebase*, September 2009.
 - ◇ *International Business Times*, October 2009.
 - ◇ *The Economist Online-EIU/Harvard Business School Executive Briefing*, October, 2009.
- *Let Your Competitor Feast on Leftovers:*
 - ◇ *Kellogg Insight*, June 2010.
 - ◇ *The Economist Online-EIU/Harvard Business School Executive Briefing*—Creating shortages can be a strategic advantage, August 2010.
- Speaker at 15th Anklestria Supply Forum: “Forecast and Investment Sharing with your Suppliers and Customers,” March 2015.

- Presenter for ACMA Webinar: “Demand Forecasting: What and When to Forecast,” Anklesaria Group, June 2015.
- Speaker at 17th Anklesaria Supply Forum: “Economies of scale and responsive supply chains,” March 2017.

Teaching Experience

- 2012 - Current, Rady School of Management, University of California - San Diego.
 - ◊ MBA core: Operations Management, Instructor (Winter 2013, Winter 2014, Winter 2015, Winter 2016, Winter 2017, Winter 2018).
 - ◊ MBA elective: Supply Chain Management, Instructor (Summer 2014, Winter 2015).
 - ◊ MBA Independent Studies:
 1. Tesla motors and the electric car industry (Fall 2012)
 2. The motion picture industry and the shrinking video windows (Spring 2013)
 3. Inventory information sharing in the fashion industry (Summer 2013)
 4. SANYO television demand forecast model (Fall 2013)
 5. Cost comparison of off-shoring and reshoring in the bio-tech industry (Spring 2014),
 6. Identifying common causes of manufacturing variances for BD Biosciences (Summer 2014)
 7. Valuing integrative medicine in the UC San Diego health system (Summer 2014)
 8. Supply market analysis on Li-Ion batteries in automotive applications (Summer 2015)
 9. AirCourse Operational Plan (Summer 2016)
 10. Supply management using a reverse factoring technology platform (Winter 2017)
 11. Establishing fund services to enable whitelabeling to resellers/partners (Spring 2017)
 12. Multi-Channel Marketing for Ready5 (Spring 2017)
 13. Application of Blockchain Technologies in the healthcare industry (Spring 2018)
 - ◊ MS in Business Analytics: Supply Chain Analytics, Instructor (Winter 2017, Winter 2018).
 - ◊ MS in Business Analytics: Capstone Project Faculty
 1. ViaSat Competition (Spring 2017, Summer 2107)
 2. ViaSat Aviation (Spring 2017, Summer 2107)
 - ◊ PhD: MGT245 Theory of Technology and Operations Management (Winter 2014).
 - ◊ PhD Independent Studies (Winter 2013, Spring 2013, Fall 2014, Spring 2016).
 - ◊ Executive Education in Supply Chain Excellence, sponsored by The Institute for Supply Excellence and Innovation: Supply Chain Contracting, Inventory Control and Negotiation (Winter 2017).
- 2008 - 2011, Northwestern University, Kellogg School of Management.
 - ◊ MBA core: Operations Management, Instructor, Avg. 9.2 out of 10 (Summers 2009, 2010, Spring 2011, Fall 2011, Spring 2012).

- ◇ MBA elective: (turbo) Operations Management, Instructor, Avg. 8.8 out of 10 (Summer 2009, 2010).
 - ◇ PhD: Operations Economics, Instructor, (Spring 2011).
- 2005 - 2007, Stanford University, Graduate School of Business
 - ◇ PhD core: Fundamentals of OIT - Advanced dynamic programming segment, co-developer and lecturer (Fall 2007).
 - ◇ MBA elective: Revenue Optimization, Teaching Assistant (Spring 2006).
 - ◇ MBA core: Operations, Teaching Assistant (Winter 2006).
- 2002, University of Chicago, Department of Statistics
 - ◇ Undergraduate core: Statistics, Teaching Assistant (Fall 2002).

Awards and Honors

- *Most Valuable Professor Award*, Full-Time MBA Class of 2017, Rady School of Management, UCSD (2017).
- *Most Valuable Professor Award*, Flex Evening MBA Class of 2017, Rady School of Management, UCSD (2017).
- M&SOM Meritorious Service Award (2016).
- *Excellence in Teaching Award*, Full-Time MBA Class of 2016, Rady School of Management, UCSD (2016).
- *Award of recognition*: Service in providing accommodations to students with disabilities at UC San Diego, University of California, San Diego (2016).
- *Excellence in Teaching Award*, Flex Evening MBA Class of 2016, Rady School of Management, UCSD (2016).
- M&SOM Meritorious Service Award (2015).
- Management Science Meritorious Service Award (2015).
- *Award of recognition*: Service in providing accommodations to students with disabilities at UC San Diego, University of California, San Diego (2015).

- *Excellence in Teaching Award*, Flex Evening MBA Class of 2015, Rady School of Management, UCSD (2015).
- *Excellence in Teaching Award*, Full-Time MBA Class of 2014, Rady School of Management, UCSD (2014).
- Best Paper Award - Conference on Information Systems and Technology (out of 75 submitted papers) (2012).
- Chairs' Core Course Teaching Award, Kellogg School of Management, Northwestern University (2010 - 2011).
- Management Science Meritorious Service Award (2011).
- Recipient of *Lieberman Fellowship*, Stanford University (2006-2007).
- Recipient of Stanford GSB Fellowship (2003-2008).
- Departmental Fellowship, Department of Statistics, The University of Chicago (2001-2003).
- *Ministry of Education (Korea)*: Scholarship Award for students studying abroad (Statistics) (2001-2003).
- Army Commendation Medal, United States Army (2001).
- Army Achievement Medal, United States Army (2001).
- Full Scholarship from KAIST Graduate School of Management (1997-1999).
- Full Scholarship from *Ministry of Science and Technology (Korea)* (1993-1997).

Dissertation Committees

- Sajjad Najafi, Department of Mechanical and Industrial Engineering, University of Toronto (Postdoc at HKUST under Prof. Guillermo Gallego).
- Elizabeth Hastings, Department of Economics, University of California, San Diego.
- Zheng Huang, Department of Economics, University of California, San Diego.

- Junghee Lee, Rady school of management, University of California, San Diego (First academic appointment: Tulane University), co-chair.
- Duy D. Dao, Rady school of management, University of California, San Diego (First academic appointment: University of Calgary), co-chair.
- Lakshminarayana Nittala, Rady school of management, University of California, San Diego (First academic appointment: University of Dayton).
- Oleksiy Mnyshenko, Department of Economics, University of California, San Diego (Amazon).
- Ruomeng Cui, Kellogg school of management, Northwestern University (First academic appointment: Kelley School of Business, Indiana University; currently at Emory University).
- Jingqi Wang, Kellogg school of management, Northwestern University (First academic appointment: School of Business, The University of Hong Kong), co-chair.
- Qifeng Shao, Industrial Engineering & Management Science, Northwestern University.
- Neda Ebrahim Khanjari, Industrial Engineering & Management Science, Northwestern University (First academic appointment: College of Business, University of Illinois at Urbana-Champaign; currently at School of Business, Rutgers, The State University of New Jersey at Camden), co-chair.

Professional Service

- Master class lecture on the Preview Day for Prospective students in Rady master's programs, Rady School of Management, University of California San Diego, Nov. 2017.
- Guest Senior Editor, Production and Operations Management (2017, 2018).
- Editorial Board member, Service Science (2017 - current).
- Faculty panel and presenter, POMS Doctoral Consortium, POMS, 2017.
- Co-chair of the curriculum subcommittee in the advisory board of The Institute for Supply Excellence and Innovation, Rady School of Management, University of California, San Diego, 2017-current.
- Ad hoc review committee for a faculty promotion, Rady School of Management, University of California, San Diego, 2016-2017.

- Curriculum review committee, Rady School of Management, University of California, San Diego, 2016.
- Search committee for Assistant Dean of MBA Program, Rady School of Management, University of California, San Diego, 2016-2017.
- ITO group representative in PhD program committee, Rady School of Management, University of California, San Diego, 2016 – 2017.
- Advisory group of Professional Certificate program on Purchasing and Supply Chain Management, University of California, San Diego, Extension, 2016 – current.
- Associate Editor for Journal of the Korean Operations Research and Management Science Society (2016 – current).
- Master class lecture on the Preview Day for Prospective students in Rady master's programs, Rady School of Management, University of California San Diego, Apr. 2016.
- Associate Editor for *International Conference on Information Systems (2016)*.
- Committee for Faculty Excellence Program, Rady School of Management, University of California, San Diego, 2015 – current.
- Recruiting Committee for Business Analytics, Rady School of Management, University of California, San Diego, 2015 – current.
- Visioning Task Force for Institute for Global Entrepreneur (IGE), University of California, San Diego, 2015 – 2016.
- Committee for an appointment for an endowed chair, Rady School of Management, University of California, San Diego, 2015.
- AACSB Reaccreditation Working Group, Rady School of Management, University of California San Diego, 2014 - 2016.
- Assurance of Learning in MGT 413 for AACSB, Rady School of Management, University of California San Diego, 2012 – 2017.
- Club faculty advisor for Rady Club for Operations & Analytics, Rady School of Management, University of California San Diego, 2015 – current.

- Master class lecture on the Preview Day for Prospective students in Rady master's programs, Rady School of Management, University of California San Diego, Apr. 2015.
- Panelist in Lab to Market Workshop, Rady School of Management, University of California, San Diego, Mar. 2017, Nov. 2016, June 2016, Dec. 2015, June 2014, Nov. 2013.
- Participation in the Early Calling Campaign, University of California, San Diego, Mar. 2015.
- TMC Marshall Mentor Program, University of California San Diego: Wilson Ng (2013–2014); Sanjeev Ranga (2014–2015); Sharon Ho (2015–2016).
- ITO group seminar series organizer, Rady school of management, University of California, San Diego (2013 - current).
- Judge for the Pre-term case competition, Rady school of management, University of California, San Diego (2012).
- MBA core Operations waiver, Kellogg school of management, Northwestern University (2011).
- PhD student Operations seminar advisor, Kellogg school of management, Northwestern University (Fall 2010).
- Weekly Operations seminar series organizer, Kellogg school of management, Northwestern University (2009 - 2010).
- Associate Editor for *International Conference on Information Systems* (2013, 2018).
- Program Committee for *Conference on Information Systems and Technology* (2013).
- Co-chair of *Supply Chain Management SIG in MSOM* (2014).
- Reviewer of *The United States – Israel Binational Science Foundation (BSF) Research Grant* (2017).
- Referee for *Cluster Computing, Energy Policy, European Journal of Operational Research, Information Systems Research, Journal of the Operational Research Society, Management Science, Manufacturing & Service Operations Management, Management Information Systems Quarterly, Marketing Science, Naval Research Logistics, Omega, International Journal of Management Science, Operations Research, Production and Operations Management, International Conference on Information Systems (2009), Manufacturing & Service Operations Management Conference and Special Interest Group (2009, 2010, 2011, 2012, 2014, 2015, 2016), Manufacturing & Service Operations Management student paper competition (2010,*

2011), POMS Supply Chain College student paper competition (2012, 2017, 2018).