#### RAHUL KAPOOR

Management Department, The Wharton School, University of Pennsylvania, 2207 Steinberg Hall-Dietrich Hall, 3620 Locust Walk, Philadelphia, PA 19104-6370 Tel: +1-215-898-6458 · Fax: +1-215-898-0401, Email: kapoorr@wharton.upenn.edu https://mgmt.wharton.upenn.edu/profile/kapoorr/

#### RESEARCH INTERESTS

Innovation, Technology Management and Strategy, Industry Evolution, Firm Boundaries, Business Ecosystems

#### **EDUCATION**

- 2008 Ph.D. in Management, INSEAD, France
- 2006 M.Sc. in Management, INSEAD, France
- 2002 M.B.A., National University of Singapore, Singapore
- 1997 B.A.Sc., Materials Engineering (First Class Honors), Nanyang Technological University, Singapore

#### ACADEMIC APPOINTMENT

The Wharton School, University of Pennsylvania Associate Professor of Management (with tenure), 2015-Present Assistant Professor of Management, 2008-2015

#### RESEARCH AND PUBLICATIONS

# A. Papers in Refereed Journals

- [1] Nathan Furr and Rahul Kapoor (2017), "Capabilities, Technologies, and Firm Survival during Industry Shakeout: Evidence from the Global Solar Photovoltaic Industry," *Strategic Management Journal*.
  - Best Paper Proceedings, Academy of Management Annual Meeting, 2016
- [2] Joon Mahn Lee and Rahul Kapoor (2017), "Complementarities and Coordination: Implications for Governance Mode and Performance of Multi-product Firms," *Organization Science*.
- [3] Rahul Kapoor, Thomas Klueter, James M. Wilson (2017), "Challenges in the Gene Therapy Commercial Ecosystem," *Nature Biotechnology*, 35(9): 813-815.
- [4] Rahul Kapoor and Shiva Agarwal (2017), "Sustaining Superior Performance in Business Ecosystems: Evidence from Application Software Developers in the iOS and Android Smartphone Ecosystems," *Organization Science*, 28(3): 531-551.
- [5] Ron Adner and Rahul Kapoor (2016), "Innovation Ecosystems and the Pace of Substitution: Re-examining Technology S-curves," *Strategic Management Journal*, 37(4): 625-648.

- Lead Article
- [6] Rahul Kapoor and Thomas Klueter (2015), "Decoding the Adaptability-Rigidity Puzzle: Evidence from Pharmaceutical Incumbents' Pursuit of Gene Therapy and Monoclonal Antibodies," *Academy of Management Journal*, 58(4): 1180-1207.
  - Top 3 papers published in Academy of Management Journal, 2016
  - Best Paper Award in Innovation Management second prize, 2014
  - Giarratani Rising Star Award finalist, Industry Studies Association, 2014
- [7] Rahul Kapoor and Nathan Furr (2015), "Complementarities and Competition: Unpacking the Drivers of Entrants' Technology Choices in the Solar Photovoltaic Industry," *Strategic Management Journal*, 36(3): 416-436.
- [8] Rahul Kapoor and Patia J. McGrath (2014), "Unmasking the Interplay between Technology Evolution and R&D Collaboration: Evidence from the Global Semiconductor Manufacturing Industry, 1990-2010," *Research Policy*, 43(3): 555-569.
- [9] Rahul Kapoor (2013), "Persistence of Integration in the Face of Specialization: How Firms Navigated the Winds of Disintegration and Shaped the Architecture of the Semiconductor Industry," *Organization Science*, 24(4): 1195-2013.
- [10] Rahul Kapoor and Joon Mahn Lee (2013), "Coordinating and Competing in Ecosystems: How Organizational Forms Shape New Technology Investments," *Strategic Management Journal*, 34(3): 274-296.
  - Best Paper Proceedings, Academy of Management Annual Meeting, 2010
- [11] Rahul Kapoor (2013), "Collaborating with Complementors: What do Firms do?" *Advances in Strategic Management*, 30: 3-25.
  - Lead Article, Annual Volume on "Collaboration and Competition in Business Ecosystems."
- [12] Rahul Kapoor and Ron Adner (2012), "What Firms Make vs. What They Know: How Firms' Production and Knowledge Boundaries Affect Competitive Advantage in the Face of Technological Change," *Organization Science*, 23(5): 1227-1248.
  - Lead Article, Special Issue on "Organizational Economics and Organizational Capabilities: From Opposition and Complementarity to Real Integration."
  - INFORMS-Industry Studies Association Best Paper Prize first runner-up, 2013
  - Best Paper Award in Innovation Management second prize, 2013
  - Best Paper Proceedings, Academy of Management Annual Meeting, 2008
- [13] Ron Adner and Rahul Kapoor (2010), "Value Creation in Innovation Ecosystems: How the Structure of Technological Interdependence Affects Firm Performance in New Technology Generations," *Strategic Management Journal*, 31(3): 306-333.
  - Highly Cited Paper, Thomson Reuters Citation Index (Top 1% of the academic field of Economics & Business).
- [14] Rahul Kapoor and Kwanghui Lim (2007), "The Impact of Acquisitions on the Productivity of Inventors at Semiconductor Firms: A Synthesis of Knowledge-Based and Incentive-Based Perspectives," *Academy of Management Journal*, 50(5): 1133-1155.

- Best Paper Proceedings, Academy of Management Annual Meeting, 2005
- Carolyn Dexter Award Nominee, Academy of Management Annual Meeting, 2005

#### B. Other Research Awards

- Emerging Scholar Award, Academy of Management Technology and Innovation Management (TIM) Division, 2011
- Dorinda and Mark Winkelman Distinguished Scholar Award, The Wharton School, 2011
- Sloan Industry Studies Best Dissertation Award finalist, 2008

# C. Other Published Papers

- [15] Rahul Kapoor and Thomas Klueter (2017), "Organizing for New Technologies," *MIT Sloan Management Review*, 58(2): 85-86.
- [16] Ron Adner and Rahul Kapoor (2016), "Right Tech, Wrong Time: How to Make Sure That Your Ecosystem is Ready for the Newest Technologies," *Harvard Business Review*, November: 60-67.
  - HBR's 2018 10 Must Reads
- [17] Rahul Kapoor and Ron Adner (2007), "Technology Interdependence and the Evolution of Semiconductor Lithography," *Solid State Technology*, 50(11): 51-54.

# D. Reports and Other Materials

- [18] Rahul Kapoor and Andrew Kohm (2012), "Tesla Motors Inc." Wharton Case Study #84.
- [19] Rahul Kapoor (2012), "Managing Complexity and Change in the Semiconductor Ecosystem: A Report on the Findings from the Wharton-ATREG Industry Study."
- [20] Rahul Kapoor (2011), "Collaborative Innovation in the Global Semiconductor Industry: A Report on the Findings from the 2010 Wharton-GSA Semiconductor Ecosystem Survey."
- [21] Rahul Kapoor, Daniel Levinthal, and Dalglish Chew (2009), "E-Books in 2009: Did the Long Heralded Revolution Finally Arrive?" Wharton Case Study #48.

# E. Working Papers

- [22] Shiva Agarwal and Rahul Kapoor, "Two Faces of Value Creation in Business Ecosystems: Leveraging Complementarities and Managing Interdependencies."
- [23] Rahul Kapoor and Thomas Klueter, "Progress and Setbacks: The Two Faces of Technology Emergence."
- [24] John Eklund and Rahul Kapoor, "Uncovering an Incumbency Paradox: Firms with the Greatest Need to Change Face the Greatest Stock Market Pressure to Conform."
  - Best Paper Proceedings, Academy of Management Annual Meeting, 2016

# F. Research in Progress

- Evolution of the Solar Photovoltaic Industry (with Nathan Furr)
- Innovation in Ecosystems (with Martin Ganco and Gwendolyn Lee)
- Technology Forecasting (with John Paul MacDuffie)

## G. Invited Seminars

- University of Minnesota, Scheduled for Fall 2017
- University of California (Los Angeles), Scheduled for Fall 2017
- Harvard University, 2017
- Duke University, 2017
- University of Southern California, 2017
- University of Illinois at Urbana-Champaign, 2016
- University of Texas at Austin, 2016
- University of Michigan, 2013, 2016
- Imperial College London, 2014
- INSEAD, 2014
- Temple University, 2014
- Purdue University, 2013
- Bocconi University, 2013
- Northwestern University, 2013
- London Business School, 2008, 2012, 2013
- Seoul National University, 2013, 2017
- Stanford University, 2012
- Drexel University, 2012
- University of Cambridge, 2012
- City University London, 2012
- University of Melbourne, 2010
- National University of Singapore, 2005, 2008, 2010
- Boston University, 2008
- New York University, 2008
- Singapore Management University, 2008
- University of California (Los Angeles), 2008
- University of Maryland, 2008
- University of Pennsylvania, 2008
- University of Washington, 2008

## H. Conference Presentations

Shiva Agarwal and Rahul Kapoor, "Two Faces of Value Creation in Business Ecosystems: Leveraging Complementarities and Managing Interdependencies."

Micro Meets Macro Conference, Arizona State University, 2017

Rahul Kapoor and Shiva Agarwal, "Sustaining Superior Performance in Business Ecosystems: Evidence from Application Software Developers in the iOS and Android Smartphone Ecosystems."

- Evolutionary Perspectives on Strategy, Stanford University, 2016
- IESE Strategy and Entrepreneurship Winter Mini-Conference, Barcelona, Spain, 2014
- Academy of Management Annual Meeting, Philadelphia, PA, 2014
- Atlanta Competitive Advantage Conference, Atlanta, GA, 2014

Rahul Kapoor and Thomas Klueter, "Decoding the Adaptability-Rigidity Puzzle: Evidence from Pharmaceutical Incumbents' Pursuit of Gene Therapy and Monoclonal Antibodies."

- Industry Studies Conference, Portland, OR, 2014
- Academy of Management Annual Meeting, Orlando, FL, 2013

Rahul Kapoor and Nathan Furr, "Complementarities and Competition: Unpacking the Drivers of Entrants' Technology Choices in the Solar Photovoltaic Industry."

- BYU/University of Utah Winter Strategy Conference, Salt Lake City, UT, 2013
- West Coast Research Symposium on Technology Entrepreneurship, Seattle, WA, 2013

Rahul Kapoor, "Persistence of Integration in the Face of Specialization: How Firms Navigated the Winds of Disintegration and Shaped the Architecture of the Semiconductor Industry."

- Industry Studies Conference, Pittsburgh, PA, 2012
- Columbia Business School Strategy Conference, 2011
- University of Maryland Smith Entrepreneurship Research Conference, 2011
- Symposium on Causes, Consequences and Limits of Vertical Disintegration, Academy of Management Annual Meeting, San Antonio, TX, 2011

Ron Adner and Rahul Kapoor, "Innovation Ecosystems and the Pace of Substitution: Reexamining Technology S-curves."

- Symposium on the Complicated Life of Technology Transitions, Academy of Management Annual Meeting, Boston, MA, 2012
- University of Maryland Smith Entrepreneurship Research Conference, 2012
- Industry Studies Conference, Pittsburgh, PA, 2011
- West Coast Research Symposium on Technology Entrepreneurship, Eugene, OR, 2010

Rahul Kapoor and Patia McGrath, "Unmasking the Interplay Between Technology Evolution and R&D Collaboration: Evidence from the Global Semiconductor Industry, 1990-2010."

- Industry Studies Conference, Pittsburgh, PA, 2011
- Symposium on Enabling Innovation Outside the Firm, Academy of Management Annual Meeting, San Antonio, TX, 2011

Rahul Kapoor and Joon Mahn Lee, "Coordinating and Competing in Ecosystems: How Organizational Forms Shape New Technology Investments."

- Academy of Management Annual Meeting, Montréal, Canada, 2010
- Atlanta Competitive Advantage Conference, Atlanta, GA, 2010
- New York University Economics of Strategy Mini-conference, 2009

Rahul Kapoor and Ron Adner, "What Firms Make vs. What They Know: How Firms' Production and Knowledge Boundaries Affect Competitive Advantage in the Face of Technological Change."

- Organization Science Special Issue Conference, Bergen, Norway, 2010
- BYU/University of Utah Winter Strategy Conference, Salt Lake City, UT, 2010
- Atlanta Competitive Advantage Conference, Atlanta, GA, 2009
- Academy of Management Annual Meeting, Anaheim, CA, 2008
- CCC Conference, Atlanta, GA, 2007

Ron Adner and Rahul Kapoor, "Value Creation in Innovation Ecosystems: How the Structure of Technological Interdependence Affects Firm Performance in New Technology Generations."

• Strategic Management Society Conference, Vienna, Austria, 2006

Rahul Kapoor and Kwanghui Lim, "The Impact of Acquisitions on the Productivity of Inventors at Semiconductor Firms: A Synthesis of Knowledge-Based and Incentive-Based Perspectives."

Academy of Management Annual Meeting, Honolulu, HI, 2005

## **TEACHING**

The Wharton School, University of Pennsylvania

- Technology Strategy (MGMT 731)
  - MBA Elective Course, 2009-present
  - MBA for Executives (WEMBA West) Elective Course, 2011-present
  - MBA for Executives (WEMBA East) Elective Course, 2013-present
- Technology and Innovation Strategy (MGMT 214), Undergraduate Elective Course, 2017
- Pro-seminar in Technology Strategy and Innovation, PhD Elective Course, 2016-present
- Wharton Business and Law Certificate, 2012-present
- Wharton Certificate of Management for Penn Law, 2013-present
- Management of Technology (MGMT 237), Undergraduate Elective Course, 2015-2016
- Managing the Emerging Enterprise (MGMT 612), MBA Flexible Core Course, 2012-2014
  - Co-taught with Peter Cappelli and Mauro Guillén
- Competitive Strategy (MGMT 654), MBA Core Course, 2008-2011
- Executive Education Boeing, Bristol-Myers Squibb, Cisco Systems, Digicel, IBM, Larsen & Toubro, Novo Nordisk, Sina Weibo, Twitter, Several Open-Enrollment Programs on Innovation and Strategic Management.

#### **PROFESSIONAL ACTIVITIES**

#### A. Wharton Activities

- Co-organizer of the Annual Wharton Technology and Innovation Conference, 2010present
- Doctoral Dissertation Advisor
  - o Shiva Agarwal (first placement: University of Texas at Austin)
- Member of Doctoral Dissertation Committee
  - Ramkumar Ranganathan (first placement: University of Texas at Austin)
  - Joon Mahn Lee (first placement: Purdue University)
  - Thomas Klueter (first placement: IESE, Spain)
- MBA Executive Committee, 2015, 2016, 2017
- Chair, Strategy Area Recruiting Committee, 2015
- Member of Strategy Area Recruiting Committee, 2012, 2013, 2016
- Member of Entrepreneurship Area Recruiting Committee, 2011
- Member of Strategy Area Doctoral Qualifying Exam Committee, 2009, 2011, 2013, 2015, 2016
- Member of Management Department Seminar Committee, 2009, 2012, 2013
- Co-host of the show "Innovation Navigation" on Business Radio Powered by the Wharton School on SiriusXM Channel 111, 2014-2016

# B. Editorial Boards, Reviewing and Other Academic Community Activities

- Editorial Board, Academy of Management Review, 2017-present
- Editorial Board, Strategy Science, 2014-present
- Editorial Board, Organization Science, 2013-present
- Editorial Board, Strategic Management Journal, 2013-present
- Editorial Board, Academy of Management Journal, 2010-present
- Elected Positions
  - 5-year Division Leadership, Technology and Innovation Management (TIM) Division, Academy of Management, 2017-2022
  - Executive Committee, Business Policy and Strategy (BPS) Division, Academy of Management, 2013-2015
  - Representative-at-Large, Competitive Strategy Interest Group (CSIG), Strategic Management Society, 2013-2015
  - Representative-at-Large, Technology and Innovation Management (TIM) Division, Academy of Management, 2012-2014
- Nominated Positions
  - Member, Research Committee of the BPS Division, Academy of Management, 2011-2013
  - Member, Early Career Development Committee, Industry Studies Association, 2012-2014
- Discussant
  - Kenan Institute Frontiers of Entrepreneurship Research Conference, University of North Carolina, Chapel Hill, NC, 2017
  - Showcase symposium on "Collaboration in Innovation Ecosystems," Academy of Management Annual Meeting, Anaheim, CA, 2016
  - 23<sup>rd</sup> Consortium on Competition and Cooperation (CCC), Bocconi University, 2016

- Entrepreneurship and Innovation Research Conference Co-organized by U. of Virginia Darden School of Business and University of Cambridge Judge Business School, 2013, 2016
- BYU/Univ. Utah Winter Strategy Conference, Park City, UT, 2015
- 20th Consortium on Competition and Cooperation (CCC), Kansas City, 2013
- Organization Science Special Issue Conference, Bergen, Norway, 2010
- Invited Panelist
  - TIM Junior Faculty Consortium, Academy of Management Annual Meeting, 2016
  - BPS Junior Faculty Consortium, Academy of Management Annual Meeting, 2014
  - BPS Dissertation Consortium, Academy of Management Annual Meeting, 2014
  - TIM Doctoral Consortium, Academy of Management Annual Meeting, 2012
  - Faculty Symposium at 19th CCC, University of Maryland, 2012
  - BPS Doctoral Consortium, Academy of Management Annual Meeting, 2011
- Co-organizer of Consortium on Competition and Cooperation (CCC), 2016, 2017
- Co-organizer of the Professional Development Workshop on Firms, Ecosystems and Innovation, Academy of Management Annual Meeting, 2010, 2011
- Reviewer for Administrative Science Quarterly, Management Science (Strategy, Innovation and Organizations Departments), Research Policy, Strategic Entrepreneurship Journal
- Reviewer for Academy of Management Annual Meeting, BPS and TIM divisions, various years

# C. Professional Affiliations and Memberships

- Academy of Management, BPS and TIM divisions
- Strategic Management Society
- Strategy Research Forum
- Charter Member, TiE Philadelphia

## OTHER AWARDS, GRANTS AND HONORS

## A. Other Awards and Honors

- Outstanding Reviewer Award, Academy of Management Business Policy and Strategy (BPS) Division, 2012
- INSEAD Ph.D. Fellowship, 2004-2008
- Nanyang Technological University Natsteel Gold Medal, 1997
- Singapore Airlines-Neptune Orient Lines Undergraduate Scholarship, 1993-1997

#### B. Grants

- Mack Institute for the Project "Forecasting of Emerging Technologies Using Crowdsourced Tournaments" with John Paul MacDuffie, 2017
- Global Initiatives Research Program and the Mack Institute for the Project "Innovation and Technological Change in the Energy Sector," 2015
- Mack Center for the Project "Emergence of Gene Therapy Technology," 2012

- Dean's Research Fund for the Project "Technology Evolution and Inter-Firm Collaboration Networks," 2011
- Global Initiatives Research Program for the Project "Firms, Ecosystems and Innovation," 2010-2013
- Mack Center for the Project "Innovating in Ecosystems: Linking Technological Interdependencies to Firm Strategies and Innovation Outcomes," 2009

#### OTHER PROFESSIONAL EXPERIENCES

UTAC (Semiconductor Manufacturer), Singapore, Manager, 1999-2004

- Part of a start-up team.
- Built and managed an organization of 12 engineers and two section managers responsible for new product development and commercialization.
- Managed strategic relationships with customers, suppliers, and external R&D labs.

B2C.com (Internet Application Provider), Singapore, Co-founder, 1999-2001

- Created and implemented a business model for developing virtual communities in Asia.
- Managed a joint venture with an IT firm.
- Formed partnerships with different community stakeholders to join the web portal.

Texas Instruments (Semiconductor Manufacturer), Singapore, Engineer, 1997-1999

- Part of a global product development team responsible for new memory chips.
- Implemented a technology transfer from a U.S.-based licensor.

## PERSONAL INFORMATION

- U.S. citizen
- Married, two children born 2001 and 2007