




## Riitta Katila

W.M. Keck Professor and Professor of Management Science and Engineering

 Curriculum Vitae available Online

### CONTACT INFORMATION

- **Administrator**

Sarina Gaeta - Administrative Associate

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### Bio

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#### BIO

Riitta Katila is the W. M. Keck Sr. Professor of Management Science, Faculty Director of the Stanford Technology Ventures Program and HAI Sabbatical Scholar at Stanford Institute for Human-Centered Artificial Intelligence at Stanford University. Her research is in the intersection of technology strategy and organizational learning, using machine learning, statistical analysis and mixed methods. She is an expert on innovation, competition, and entrepreneurship in large firms, and her current research centers on digital platforms, regulation of technology ecosystems, decentralization of decision-making, and responsible and inclusive innovation. Katila's research pushes the theoretical boundaries of institutional logics, resource dependence and evolutionary search theories to understand how organizations innovate and change.

Prof. Katila's research has received several international honors. She is an Alfred P. Sloan Industry Studies Fellow and winner of the Schendel Prize by the Strategic Management Society. Katila is an elected Fellow of the Academy of Management and Fellow of the Strategic Management Society.

Katila received Academy of Management's Stephan M. Schrader Award for Outstanding Research in Technology and Innovation Management, and the Thought Leader Award in Entrepreneurship. Katila is the recipient of the Eugene L. Grant Faculty Teaching Award at Stanford, an alumni impact award from Aalto University's School of Science (former Helsinki University of Technology) and was selected to Tau Beta Pi Teaching Honor Roll at Stanford. She is Associate Editor of the Academy of Management Annals and of the Strategic Entrepreneurship Journal and has served on the editorial review boards of Administrative Science Quarterly, Organization Science, Strategic Organization, and the Strategic Management Journal. She is currently on Strategic Management Society's Board of Directors, and is past-President of the Technology and Innovation Management Division of the Academy of Management.

Katila studied engineering economics and information systems as an undergraduate, earned a Ph.D. in technology strategy at UT Austin on a Fulbright Scholarship, and received a Doctorate in Engineering from Helsinki University of Technology in Finland. In between, she worked at a management consultancy and in telecommunications. Trained as an industrial engineer, she is known as a trailblazer for women engineers and scientists.

Media Resources for Recent Research:

For the in-press Strategic Management Journal 2024 paper on AI and supervised machine learning for strategy scholars, see Sage Research Methods video <https://methods.sagepub.com/video/machine-learning-and-publicprivate-firm-collaboration> and AI for good <https://arxiv.org/abs/2305.09573>. <https://www.youtube.com/watch?v=IS6qJG3vZPM>

For access to publications, <http://web.stanford.edu/~rkatila/lagunita/publications.html>

Antitrust in big tech platforms Strategic Management Journal 2023. <https://www.youtube.com/watch?v=IuDwEAmzApp>

On big fish vs big pond tie choice Academy of Management Journal 2022 <https://www.youtube.com/watch?v=y4V-P6GzWEE>

Award-winning SMS video abstract on lean startup <https://www.youtube.com/watch?v=wZ3uvFGf1o8>

On expertise <https://hbr.org/2017/12/too-many-experts-can-hurt-your-innovation-projects>

On innovation and experiments <https://hbr.org/2021/04/to-make-lean-startups-work-you-need-a-balanced-team>

On big tech antitrust <https://hbr.org/2023/02/the-surprising-consequences-of-antitrust-actions-against-big-tech>

On how to best use your expertise: What's the sweet spot for experts? Academy of Management Journal 2017. <https://www.youtube.com/watch?v=SSKM9jjmS5k>

## ACADEMIC APPOINTMENTS

- Professor, Management Science and Engineering
- Member, Bio-X

## HONORS AND AWARDS

- Fellow, Strategic Management Society
- Fellow, Academy of Management
- Tau Beta Pi Teaching Honor Roll, Stanford University
- Best Research Video Abstract, Strategic Management Society
- Schendel Prize, Strategic Management Society
- President, Technology and Innovation Management Division, Academy of Management
- Thought Leader Award, Entrepreneurship Division, Academy of Management
- Top Strategy Scholar, "Emerging Scholar of the Year", Strategic Management Society
- Industry Studies Fellow, Alfred P. Sloan Foundation
- Best Paper, Industry Studies Association
- Alumnus of the Year, Aalto University School of Science
- Best Paper, Competitive Dynamics Conference
- Best Doctoral Dissertation, Technology and Innovation Management Division, Academy of Management
- Eugene L. Grant Faculty Teaching Award, Stanford University
- Best Doctoral Dissertation, Technology Management Section, INFORMS
- Best Symposium Award, Organization & Management Theory Division, Academy of Management
- Best Dissertation Finalist, Business Policy and Strategy Free Press Award, Academy of Management

- Best Student Paper, Technology and Innovation Management Division, Academy of Management
- Leadership Track, Technology and Innovation Management Division, Academy of Management
- W.M. Keck Foundation Faculty Scholar, Stanford University

## LINKS

- Personal website: <http://web.stanford.edu/~rkatila/lagunita/index.html>
- Research Software: <http://web.stanford.edu/~rkatila/lagunita/researchsoftware.html>
- Publications: <http://web.stanford.edu/~rkatila/lagunita/publications.html>

## Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

The question that drives Prof. Katila's research is how technology-based firms with significant resources can stay innovative. Her work lies at the intersection of the fields of technology, innovation, and strategy and focuses on strategies that enable organizations to discover, develop and commercialize technologies. She combines theory with longitudinal large-sample data (e.g., robotics, biomedical, platform and multi-industry datasets), background fieldwork, and state-of-the-art quantitative methods. The ultimate objective is to understand what makes technology-based firms successful.

To answer this question, Prof. Katila conducts two interrelated streams of research. She studies (1) strategies that help firms leverage their existing resources (leverage stream), and (2) strategies through which firms can acquire new resources (acquisition stream) to create innovation. Her early contributions were firm centric while recent contributions focus on innovation in the context of competitive interaction and ecosystems.

Professor Katila's work has appeared in the Academy of Management Journal, Administrative Science Quarterly, Organization Science, Strategic Entrepreneurship Journal, Strategy Science, Strategic Management Journal, Research Policy and other outlets. In her work, supported by the National Science Foundation, Katila examines how firms create new products successfully. Focusing on the robotics and medical device industries, she investigates how different search approaches, such as the exploitation of existing knowledge and the exploration for new knowledge, influence the kinds of new products that technology-intensive firms introduce.

## Teaching

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### COURSES

#### 2023-24

- Innovation and Strategic Change: MS&E 371 (Win)
- Part-Time Practical Training: MS&E 208E (Win, Spr, Sum)
- Practical Training: MS&E 208A (Win, Spr, Sum)
- Practical Training: MS&E 208B (Win, Spr, Sum)
- Practical Training: MS&E 208C (Win, Spr, Sum)
- Practical Training: MS&E 208D (Win, Spr, Sum)
- Senior Project: MS&E 108 (Win)

#### 2022-23

- Fundamental Concepts in Management Science and Engineering: MS&E 302 (Aut)
- Innovation, Creativity, and Change: MS&E 175 (Win)
- Part-Time Practical Training: MS&E 208E (Aut, Win, Spr, Sum)
- Practical Training: MS&E 208A (Aut, Win, Spr, Sum)

- Practical Training: MS&E 208B (Aut, Win, Spr, Sum)
- Practical Training: MS&E 208C (Aut, Win, Spr, Sum)
- Practical Training: MS&E 208D (Aut, Win, Spr, Sum)
- Senior Project: MS&E 108 (Win)
- Strategy Doctoral Research Seminar: MS&E 376 (Win)

#### **2021-22**

- Fundamental Concepts in Management Science and Engineering: MS&E 302 (Aut)
- Innovation and Strategic Change: MS&E 371 (Win)
- Innovation, Creativity, and Change: MS&E 175 (Win)
- Part-Time Practical Training: MS&E 208E (Aut, Win, Spr, Sum)
- Practical Training: MS&E 208A (Aut, Win, Spr, Sum)
- Practical Training: MS&E 208B (Aut, Win, Spr, Sum)
- Practical Training: MS&E 208C (Aut, Win, Spr, Sum)
- Practical Training: MS&E 208D (Aut, Win, Spr, Sum)
- Senior Project: MS&E 108 (Win)

#### **2020-21**

- Fundamental Concepts in Management Science and Engineering: MS&E 302 (Aut)
- Innovation, Creativity, and Change: MS&E 175 (Win)
- Part-Time Practical Training: MS&E 208E (Aut, Win, Spr, Sum)
- Practical Training: MS&E 208A (Aut, Win, Spr, Sum)
- Practical Training: MS&E 208B (Aut, Win, Spr, Sum)
- Practical Training: MS&E 208C (Aut, Win, Spr, Sum)
- Practical Training: MS&E 208D (Aut, Win, Spr, Sum)
- Senior Project: MS&E 108 (Win)
- Strategy Doctoral Research Seminar: MS&E 376 (Win)

### **STANFORD ADVISEES**

Pradyumna Singh, Yerzhan Suleimenov

#### **Doctoral Dissertation Reader (AC)**

Seyedeh Zahra Hejrati

#### **Doctoral Dissertation Advisor (AC)**

Philipp Reineke

#### **Master's Program Advisor**

Hanh Giao, Filip Kolasinski, Girish Kumar, Nathan Lam, Will Moyo, Stephan Sharkov, Hana Tadesse, Meiqi Yang, Sen Yu, Yunfei Zhao

#### **Doctoral (Program)**

Andrew Couch, Naman Gupta

#### **Postdoctoral Research Mentor**

Anna Lukkarinen

## Publications

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### PUBLICATIONS

- **Making the Most of AI and Machine Learning in Organizations and Strategy Research: Supervised Machine Learning, Causal Inference, and Matching Models** *Strategic Management Journal*  
Rathje, J., Katila, R., Reineke, P.  
2024; in press
- **INNOVATION AND PROFITABILITY FOLLOWING ANTITRUST INTERVENTION AGAINST A DOMINANT PLATFORM: THE WILD, WILD WEST?** *Strategic Management Journal*  
Thatchenkery, S., Katila, R.  
2023; 44 (4): 907-1138
- **The surprising consequences of antitrust actions against big tech.** *Harvard Business Review*  
Katila, R., Thatchenkery, S.  
2023
- **Walking the Walk of AI Ethics: Organizational Challenges and the Individualization of Risk among Ethics Entrepreneurs**  
Ali, S. J., Christin, A., Smart, A., Katila, R., ASSOC COMPUTING MACHINERY  
ASSOC COMPUTING MACHINERY.2023: 217-226
- **BIG FISH VERSUS BIG POND? ENTREPRENEURS, ESTABLISHED FIRMS, AND ANTECEDENTS OF TIE FORMATION** *ACADEMY OF MANAGEMENT JOURNAL*  
Katila, R., Piezunka, H., Reineke, P., Eisenhardt, K. M.  
2022; 65 (2): 427-452
- **Seeing What Others Miss: A Competition Network Lens on Product Innovation** *ORGANIZATION SCIENCE*  
Thatchenkery, S., Katila, R.  
2021; 32 (5): 1346-1370
- **Enabling Technologies and the Role of Private Firms: A Machine Learning Matching Analysis** *STRATEGY SCIENCE*  
Rathje, J. M., Katila, R.  
2021; 6 (1): 5–21
- **To make lean startups work, you need a balanced team**  
Katila, R., Leatherbee, M.  
Harvard Business Review.  
2021
- **The lean startup method: Early-stage teams and hypothesis-based probing of business ideas** *STRATEGIC ENTREPRENEURSHIP JOURNAL*  
Leatherbee, M., Katila, R.  
2020
- **The lean startup method video abstract**  
Katila, R., Blank, S., Leatherbee, M.  
Strategic Management Society.  
2020
- **Systemic Innovation of Complex One-Off Products: The Case of Green Buildings** *Organization Design: Advances in Strategic Management*  
Katila, R., Levitt, R., Sheffer, D.  
2018; 40: 299 - 328
- **IS THERE A DOCTOR IN THE HOUSE? EXPERT PRODUCT USERS, ORGANIZATIONAL ROLES, AND INNOVATION** *ACADEMY OF MANAGEMENT JOURNAL*  
Katila, R., Thatchenkery, S., Christensen, M. Q., Zenios, S.  
2017; 60 (6): 2415–37
- **Too many experts can hurt innovation projects** *Harvard Business Review*  
Katila, R.

2017

- **Who takes you to the dance? How partners' institutional logics influence innovation in young firms.** *ADMINISTRATIVE SCIENCE QUARTERLY*  
Pahnke, E., Katila, R., Eisenhardt, K.  
2015; 60: 561-595
- **Evolving Strategies for Social Innovation Games**  
Baheci, E., Katila, R., Miikkulainen, R., Silva, S.  
ASSOC COMPUTING MACHINERY.2015: 1135-1142
- **HOW DO SOCIAL DEFENSES WORK? A RESOURCE-DEPENDENCE LENS ON TECHNOLOGY VENTURES, VENTURE CAPITAL INVESTORS, AND CORPORATE RELATIONSHIPS** *ACADEMY OF MANAGEMENT JOURNAL*  
Hallen, B. L., Katila, R., Rosenberger, J. D.  
2014; 57 (4): 1078-1101
- **"Distant Search" and "Local Search"** *Palgrave Encyclopedia of Strategic Management*  
Katila, R., Thatchenkery, S.  
2014
- **TOP MANAGEMENT ATTENTION TO INNOVATION: THE ROLE OF SEARCH SELECTION AND INTENSITY IN NEW PRODUCT INTRODUCTIONS** *ACADEMY OF MANAGEMENT JOURNAL*  
Li, Q., Maggitti, P. G., Smith, K. G., Tesluk, P. E., Katila, R.  
2013; 56 (3): 893-916
- **The complex search process of invention** *RESEARCH POLICY*  
Maggitti, P. G., Smith, K. G., Katila, R.  
2013; 42 (1): 90-100
- **Comparing novice and expert user inputs in early stage product design.** *Proceedings of the 5th International Congress of International Association of Societies of Design Research (IASDR), Tokyo, Japan*  
Shluzas, L., Sadler, J., Currano, R., Sanks, T., Steinert, M., Katila, R.  
2013
- **All the right moves: How entrepreneurial firms compete effectively** *STRATEGIC ENTREPRENEURSHIP JOURNAL*  
Katila, R., Chen, E. L., Piezunka, H.  
2012; 6 (2): 116-132
- **Sequences of competitive moves and effects on firm performance.** *ACADEMY OF MANAGEMENT BEST PAPER PROCEEDINGS*  
Thatchenkery, S., Katila, R., Chen, E.  
2012
- **Design Thinking Research – Understanding Innovation** *User-Centered Innovation for the Design and Development of Complex Products and Systems.*  
Shluzas, L., Steinert, M., Katila, R.  
edited by Plattner et al., H.  
2012: 135–149
- **LIFE IN THE FAST LANE: ORIGINS OF COMPETITIVE INTERACTION IN NEW VS. ESTABLISHED MARKETS** *STRATEGIC MANAGEMENT JOURNAL*  
Chen, E. L., Katila, R., McDonald, R., Eisenhardt, K. M.  
2010; 31 (13): 1527-1547
- **Effects of Search Timing on Innovation: The Value of Not Being in Sync with Rivals** *ADMINISTRATIVE SCIENCE QUARTERLY*  
Katila, R., Chen, E. L.  
2008; 53 (4): 593-625
- **Swimming with sharks: Technology ventures, defense mechanisms and corporate relationships** *ADMINISTRATIVE SCIENCE QUARTERLY*  
Katila, R., Rosenberger, J. D., Eisenhardt, K. M.  
2008; 53 (2): 295-332
- **Technology perspective on network resources.** *ACADEMY OF MANAGEMENT REVIEW*  
Katila, R.

2008; 33: 550-553

- **Rival Interpretations of Balancing Exploration and Exploitation: Simultaneous or Sequential?** *Blackwell Handbook on Technology and Innovation Management*  
Chen, E., Katila, R.  
2008
- **Business Performance Measurement – Theory and Practice** *Measuring innovation performance.*  
Katila, R.  
edited by Neely, A.  
Cambridge, UK: Cambridge University Press.2007: 304–317
- **Measuring innovation performance** *BUSINESS PERFORMANCE MEASUREMENT: UNIFYING THEORIES AND INTEGRATING PRACTICE, 2ND EDITION*  
Katila, R., Neely, A.  
2007: 304-317
- **Never too early, never too late: Effects of search timing on product innovation.** *ACADEMY OF MANAGEMENT BEST PAPER PROCEEDINGS*  
Katila, R., Chen, E.  
2006
- **When does lack of resources make new firms innovative?** *ACADEMY OF MANAGEMENT JOURNAL*  
Katila, R., Shane, S.  
2005; 48 (5): 814-829
- **Where do resources come from? The role of idiosyncratic situations** *STRATEGIC MANAGEMENT JOURNAL*  
Ahuja, G., KATILA, R.  
2004; 25 (8-9): 887-907
- **Exploiting technological opportunities: the timing of collaborations** *RESEARCH POLICY*  
KATILA, R., Mang, P. Y.  
2003; 32 (2): 317-332
- **R&D collaboration – Timing is of the essence** *WIRTSCHAFTSPOLITISCHE BLATTER*  
Katila, R., Mang, P., Davis, J.  
2003; 3: 348-352
- **Something old, something new: A longitudinal study of search behavior and new product introduction** *ACADEMY OF MANAGEMENT JOURNAL*  
KATILA, R., Ahuja, G.  
2002; 45 (6): 1183-1194
- **New product search overtime: Past ideas in their prime?** *ACADEMY OF MANAGEMENT JOURNAL*  
Katila, R.  
2002; 45 (5): 995-1010
- **Technological acquisitions and the innovation performance of acquiring firms: A longitudinal study.** *STRATEGIC MANAGEMENT JOURNAL*  
Ahuja, G., Katila, R.  
2001; 22: 197-220
- **Business Performance Measurement – Theory and Practice** *Using patent data to measure innovation performance.*  
Katila, R.  
edited by Neely, A.  
Cambridge, UK: Cambridge University Press..2001: 304–312
- **Measuring innovation performance.** *International Journal of Business Performance Measurement*  
Katila, R.  
2000; 2: 180-193
- **Interorganizational development activities: The likelihood and timing of contracts.** *ACADEMY OF MANAGEMENT BEST PAPER PROCEEDINGS*  
Katila, R., Mang, P.  
1999

- **Distinguishing the roles of the external environment in organizational learning** *Southwest Academy of Management*  
Katila, R.  
1998: 206-210
- **Using patent data to measure innovation performance.** *Proceedings of the International Conference on Performance Measurement*  
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1998
- **Distinguishing the roles of the external environment in organizational learning** *Southwest Academy of Management*  
Katila, R.  
1998
- **Technology strategies for growth and innovation: A study of biotechnology ventures.** *Frontiers of Entrepreneurship Research*  
Katila, R.  
Waltham, MA: Babson College.1997
- **Economic and sociological explanations in high technology environments – Issues for science and technology policy.** *International Association for Business and Society*  
Katila, R.  
1996