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Curriculum Vitae

Gary Pisano

Harvard Business School
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EDUCATION

Ph.D., Business Administration, University of California, Berkeley, 1988
B.A., *magna cum laude*, Economics (with distinction), Yale University, 1983

ACADEMIC APPOINTMENTS

Harry E. Figgie, Jr. Professor of Business Administration
July 1999 - present
Professor, Harvard Business School, Technology and Operations Management
July 1997- June 1999
Associate Professor, Harvard Business School, Technology and Operations Management
July 1993 - June 1997
Assistant Professor, Harvard Business School, Technology and Operations Management
July 1988 - June 1993

HONORS AND AWARDS

McKinsey Award, best article in *Harvard Business Review*, 2009
Accenture Award, finalist, *California Management Review*, 2008
Strategy and Business, best book on biotechnology, 2006
Strategic Management Society, Best Paper Prize, 2003
Greenhill Award, Harvard Business School, 2001
Baxter Foundation Distinguished Fellow, Harvard Business School, 1993-1994
Bradley Fellow, University of California, Berkeley, 1987-1988
University of California Regents Fellowship, 1986-1987
Comprehensive Ph.D. examination passed with distinction, 1985

RESEARCH INTERESTS

Technology and Operations Strategy
Science-Based Businesses
Intellectual Property
Management of Technological Innovation

TEACHING ASSIGNMENTS

Technology and Operations Management (MBA), Managing Innovation (MBA), Managing Medicine (MBA), Competition and Strategy (MBA), The Economics and Management of Technological Innovation (Doctoral), Operations Strategy (MBA), Building and Sustaining a Successful Enterprise (MBA), Program for Management Development (Executive Education), Leading Product Development (Executive Education), Leadership and Strategy in Pharmaceuticals and Biotech (Chair, Executive Education)

ADMINISTRATIVE ASSIGNMENTS

Unit Head, Technology and Operations Management, July 2004-June 2008
Director, Division of Faculty and Faculty Development, July 2002 – June 2004
Chair, Management Track, Heath Policy Ph.D. Program: 2000 – Present
Faculty Chair, Harvard Business School Global Alumni Conference,
Cleveland, OH: May 2001

PROFESSIONAL ACTIVITIES

Editor, *Research Policy* (1998-2002); Associate Editor, *Industrial and Corporate Change* (since 2009); Ad hoc reviewer for *Administrative Science Quarterly*, *California Management Review*, *Journal of Law, Economics, and Organization*, *Journal of Operations Management*, *Management Science*, *Strategic Management Journal*, and National Science Foundation.

PUBLICATIONS

Journals

"The Evolution of Science Based Business: Innovating How We Innovate." *Industrial and Corporate Change* (Special Issue in Honor of Alfred D. Chandler), forthcoming 2010.

"Revitalizing American Competitiveness" with Willy Shih, *Harvard Business Review* (July-August 2009). Winner of 2009 McKinsey Award.

"Which Kind of Collaboration Is Right for You?" with Roberto Verganti, *Harvard Business Review* 86, no. 12 (December 2008).

"Toward a Theory of Behavioral Operations," with Francesca Gino, *Manufacturing and Service Operations Management* 10, no. 4 (fall 2008): 676-691.

"How to Capture Value from Innovation: Shaping Intellectual Property and Industry Architecture," with David Teece, 50th Anniversary Special Issue on Leading Through Innovation. *California Management Review* 50, no. 1 (fall 2007): 278-296. Accenture Award Finalist.

"Can Science Be Business?" *Harvard Business Review*, vol. 84, no. 10: October 2006.

"Profiting from Innovation and the Intellectual Property Revolution," *Research Policy*, vol. 35, no. 8: 1122-1130, October 2006.

"The Firm Specificity of Individual Performance: Evidence from Cardiac Surgery," with Robert S. Huckman, *Management Science*, vol. 52, no. 2: 473-488, April 2003.

"Learning How and Learning What: Effects of Tacit and Codified Knowledge on Performance Improvement Following Technology Adoption," with Amy C. Edmondson, Ann B. Winslow, and Richard M. J. Bohmer, *Decision Sciences*, 34, 2: 197-223, spring 2003.

"A Research Agenda for Bridging the 'Quality Chasm,'" with Rushika Fernandopulle, Timothy Ferris, Arnold Epstein, Barbara McNeil, Joseph Newhouse, and David Blumenthal, *Health Affairs*, 22, 2: 178-190, March-April 2003.

"Disrupted Routines: Team Learning and New Technology Adaptation," with Amy C. Edmondson and Richard M. Bohmer, *Administrative Science Quarterly*, 46: 685-716, 2001.

"Speeding Up Team Learning" with Richard Bohmer and Amy Edmondson, *Harvard Business Review*, volume 79, no. 9, pp.125-134, October 2001

"Organizational Differences in Rates of Learning: Evidence from the Adoption of Minimally Invasive Cardiac Surgery" with Richard Bohmer and Amy Edmondson, *Management Science*, vol. 47, no. 6, pp. 752-768, June 2001.

"Dynamic Capabilities and Strategic Management," with David Teece and Amy Shuen, *Strategic Management Journal*, 18 (7): 509-533, August 1997. Best Paper Award, Strategic Management Society.

"Learning-Before-Doing in the Development of New Process Technology," *Research Policy*, 25 (1996) 1097-1119.

"Manufacturing Strategy: At the Intersection of Two Paradigm Shifts," with Robert Hayes, *Production and Operations Management*, Vol. 5, No. 1, pp. 25-39, Spring 1996.

"The New Logic of High Tech R&D," with Steven Wheelwright, *Harvard Business Review*, pp. 93-105, Sept/Oct, 1995.

"Dynamic Capabilities of Firms: An Introduction," with David Teece, *Industrial and Corporate Change*, Vol. 3, no. 3, pp. 537-556, 1995.

"Knowledge, Integration and the Locus of Learning: An Empirical Analysis of Process Development," *Strategic Management Journal*, Vol. 15, pp. 85-100, 1994.

"Beyond World Class: The New Manufacturing Strategy," with Robert Hayes, *Harvard Business Review*, pp. 78-86, Jan/Feb 1994.

"The Governance of Innovation: Vertical Integration and Collaborative Arrangements in the Biotechnology Industry," *Research Policy*, 20, pp. 237-249, 1991.

"The R&D Boundaries of the Firm: An Empirical Analysis," *Administrative Science Quarterly*, Vol. 35, no. 1, pp. 153-176, March 1990.

"Using Equity Participation to Support Exchange: Evidence from the Biotechnology Industry," *Journal of Law, Economics, and Organization*, Vol. 5, no. 1, pp. 109-126, Spring 1989.

Books

Science Business: The Promise, Profits, and the Future of Biotech, Boston, MA: Harvard Business School Press (November 2006).

Operations, Strategy, and Technology: Pursuing the Competitive Edge, with Robert Hayes, David Upton, and Steven Wheelwright, Indianapolis: John Wiley & Sons, Inc., 2004.

The Development Factory: Unlocking the Potential of Process Innovation, Boston: Harvard Business School Press, 1996.

Strategic Operations: Competing Through Capabilities, with Robert Hayes and David Upton, New York: The Free Press, 1996.

Instructor's Manual, Strategic Operations: Competing Through Capabilities, with Robert Hayes and David Upton, New York: Free Press, 1996

Edited Volumes

Manufacturing Renaissance, with Robert Hayes, Boston, MA: Harvard Business School Press, 1995.

Book Chapters

"Managing Innovation in Medicine", in *Consumer-driven Healthcare*. Herzlinger, R. (Ed.) San Francisco: Jossey-Bass Inc., 2004.

"Pharmaceutical Biotechnology," in *Technological Innovation & Economic Performance*, eds. B. Steil, D. Victor, and R. Nelson. Princeton: Princeton University Press, 2002.

"Learning New Technical and Interpersonal Routines in Operating Room Teams: The Case of Minimally Invasive Cardiac Surgery," with Amy C. Edmondson and Richard M. Bohmer, in Terri L. Griffith, ed. *Research on Managing Groups and Teams*, vol. 3. Greenwich, CT: JAI Press, 2000.

"Dynamic Capabilities and Strategic Management," with David J. Teece and Amy Shuen, in *The Nature and Dynamics of Organizational Capabilities*, eds. Giovanni Dosi, Richard R. Nelson, and Sidney G. Winter. Oxford: Oxford University Press, 2000.

"In Search of Dynamic Capabilities: The Origins of R&D Competence in Biopharmaceuticals," in *The Nature and Dynamics of Organizational Capabilities*, eds. Giovanni Dosi, Richard R. Nelson, and Sidney G. Winter. Oxford: Oxford University Press, 2000.

"Building and Sustaining Success" with P. Ghemawat, in *Strategy and the Business Landscape*, ed. P. Ghemawat, Reading, MA: Addison-Wesley, 1999.

"The Pharmaceutical Industry and the Revolution in Molecular Biology: Interactions Among Scientific, Institutional, and Organizational Change," with Rebecca Henderson and Luigi Orsenigo, in *The Sources of Industrial Leadership*, eds. David Mowery and Richard Nelson, Cambridge University Press, 1999.

"Collaborative Product Development and the Market for Know-How: Strategies and Structures in the Biotechnology Industry," with Paul Mang in Richard Rosenbloom and Robert Burgelman, eds. *Research on Technological Innovation, Management, and Policy: Volume V.*, Greenwich, CT: JAI Press, 1993.

"Collaborative Arrangements and Global Technology Strategy: Some Evidence from the Telecommunications Equipment Industry," with David Teece in Richard Rosenbloom and Robert Burgelman, eds., *Research on Technological Innovation, Management, and Policy: Volume IV* Greenwich, CT: JAI Press, 1989.

"Joint Ventures and Collaborative Arrangements in the Telecommunications Equipment Industry," with Michael Russo and David Teece in David Mowery, ed., *International Collaborative Ventures in U.S. Manufacturing* Cambridge, MA: Ballinger Publishing Company, 1988.

"Joint Ventures and Collaboration in the Biotechnology Industry," with W. Shan and David Teece in David Mowery, ed., *International Collaborative Ventures in U.S. Manufacturing* Cambridge, MA: Ballinger Publishing Company, 1988.

Book Reviews

Gene Dreams by Robert Teitelman in *Science*, March 9, 1990.

The Semiconductor Business by Franco Malerba in *Research Policy*, June 1986.

WORKING PAPERS

"Holding or Folding? R&D Portfolio Strategy Under Different Information Regimes," with Francesca Gino, Harvard Business School Working Paper Series No. 05-072, April 2005

"R&D Portfolio Strategy and Performance: A Behavioral Model." with Francesca Gino. Harvard Business School Working Paper Series, No. 05-015, 2004.

"Team Learning Trade-Offs: When Improving One Critical Dimension of Performance Inhibits Another" with Richard M.J. Bohmer, Ann B. Winslow, Amy C. Edmondson. Harvard Business School Working Paper Series, No. 05-047, 2004.

"R & D Performance, Collaborative Arrangements and the Market-for-Know-How: A Test of the 'Lemons' Hypothesis in Biotechnology," Harvard Business School Working Paper Series, No.97-105, July 1997.

"Manufacturing, Firm Boundaries, and the Protection of Intellectual Property," with Paul Mang, Harvard Business School Working Paper Series, No.92-048, March 1992.

"Vertical Integration, Long Term Contracts, and the Costs of Quality," with Bruce Chew, September 1990.

CONFERENCE PAPERS AND PRESENTATIONS

"The Biomedical Revolution: From Promise to Reality," 3rd Annual HBS Healthcare Industry Alumni Conference: November 2002.

"The Molecular Biology Revolution: How can we Turn Promise into Reality" BIO Conference, Boston, MA: March 2000.

"Achieving Competitive Advantage Through Process Development," The Second Annual U.S. Biotech Symposium, Washington, D.C., November 1999.

"Learning in Turbulent Environments: Studies of Problem Solving and Learning in Technologically Dynamic Contexts," Symposium (Chair and Presenter), Academy of Management Meetings, Cincinnati, August 1996.

"Learning Strategies in Development: Rethinking the Role of Manufacturing in Emerging Technologies," 2nd Wharton Conference on Biotechnology, The Wharton School of Business, University of Pennsylvania, December 1995.

"Learning Strategies in Development," Academy of Management Meetings, Vancouver, British Columbia, August 1995.

"Dynamic Capabilities and Strategic Management," Strategic Management Society Conference, Northwestern University, June 1994.

"Timing Resource Allocations and Technology Commitments," (with Marco Iansiti), TIMS/ORSA Conference, Boston, October 1993.

"Development Productivity and the Timing of Technology Transfer: Is Earlier Always Better?" Production and Operations Management Society Meetings, Boston, October 1993.

"Manufacturing, Firm Boundaries, and the Protection of Intellectual Property," Wharton Conference on Emerging Industries: Biotechnology, The Wharton School of Business, University of Pennsylvania, February 1993.

"Skills, Learning, and the Accumulation of Organizational Capabilities," Academy of Management Meetings, San Francisco, August 1992.

"Manufacturing Competence and Corporate Strategy," presented at The Conference on the Evolution of Firm Capabilities, Wharton School of Business, University of Pennsylvania, 1991.

TECHNICAL REPORTS

"New Technologies for the Local Loop and Other Local Access Systems: A Comparative Economic and Regulatory Analysis" with R.G. Harris, prepared for the Office of Technology Assessment, Congress of the United States, June 1985.

TEACHING CASES

	<u>Case Number</u>	<u>Teaching Note</u>
Amazon Web Services	609-048.	
Ducati Corse: The Making of a Grand Prix Motorcycle.	605-090	
Teradyne Corporation: The Jaguar Project	606-042	
Pacific Coast Studios	605-016	
Vertex Pharmaceuticals: R&D Portfolio Management	604-101	
Flextronics International, Ltd.	9-604-063	
In vivo to in vitro to in silico: Coping with Tidal Waves of Data at Biogen	602-122	
Discovering the Future: R&D Strategy at Merck	9-601-086	
Instituto Clinico Humanitas	9-603-063	5-603-077
The Life Sciences Revolution: A Technical Primer	9-602-118	
Heartport, Inc.	600-020	
HydroCision, Inc	699-176	
Clarity, Focus, and Vision: Lessons from the TRUSOPT Project	699-128	
Concept of Operations Strategy		698-064
Sustaining Superior Performance: Commitments and Capabilities	798-008	
Intel Corporation: 1968 - 1997	797-137	699-032
Operations Strategy: Course Overview Note		696-106
CIBA Vision: The Daily Disposable Lens Project (A)	696-100	
State Street Bank and Trust Company: New Product Development	696-087	
Partners HealthCare Systems, Inc. (A)	696-062	696-105
Partners HealthCare Systems, Inc. (B): Cardiac Care Improvement	696-063	696-109
ITT Automotive: Global Manufacturing Strategy (1994)	695-002	696-040

Eli Lilly and Company: The Flexible Facility Decision (1993)	694-074	696-041
Applichem (A) (Abridged)	694-030	696-017
American Connector Company (A) American Connector Company (B)	693-035 693-049	695-014
BMW: The 7-Series Project (A) BMW: The 7-Series Project (B)	692-083 695-013	692-094
Eli Lilly and Company: Manufacturing Process Technology Strategy (1991)	692-056	692-109
Nucleon, Inc.	692-041	692-095
Crown Equipment Corporation: Design Services Strategy	991-031	696-042
Crown Equipment Corporation: Design Services Strategy: Epilogue	991-032	
Perkin-Elmer: Physical Electronics Division	690-037	692-107
Whistler Corporation (A) Whistler Corporation (B)	690-011 692-072	692-108
Biotechnology: A Technical Note	690-010	
Monsanto's March into Biotechnology (A)	690-009	

DOCTORAL THESIS COMMITTEES

Bradley R. Staats, "Microfoundations of Organizational Capabilities: Empirical Evidence from Indian Software Services," D.B.A. (June 2009).

Francesca Gino, "The Impact on Information on Behavior and Decision-Making: Three Essays," Ph.D. Economics and Management, Sant'Anna School of Advanced Studies, Pisa, Italy (September 2004), Chair.

Robert Huckman, "Essays on Consolidation and Technology Diffusion in Medical Care," Ph.D. Business Economics (June 2001)

David Ellison, "Dynamic Capabilities in New Product Development: The Case of the World Auto Industry," Ph.D. Business Economics (September 1996).

Peter Fisher, "Diffusion of Generational Innovations in Systems Products: The Case of FM Radio," Ph.D. Business Economics (May 1995).

Katherine Huang, "Integrating Vertical and Horizontal Dimensions in a Spatial Framework of Strategic Product Competition," Ph.D. Business Economics (May 1993).

Paul Y. Mang, "The Economic Organization of Innovation by R&D-Intensive Firms: An Empirical Analysis of the Biopharmaceutical Industry," D.B.A. (November 1993), Chair.

Alan MacCormack, "Managing Adaptation: An Empirical Study of Product Development in Rapidly Changing Environments," D.B.A. (June 1998).

Vijaya Ramachandran, "Technology Transfer in the International Market," Ph.D. Business Economics (February 1991).