

FERNANDO F. SUAREZ

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Jean C. Tempel Professor of Entrepreneurship and Innovation
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EDUCATION

DOCTOR OF PHILOSOPHY, MIT SLOAN SCHOOL OF MANAGEMENT

Massachusetts Institute of Technology, Cambridge, MA
Sept. 1988 – May 1992. Strategy and International Management (currently TIES
Department: Technological innovation, entrepreneurship and strategy).

MASTER IN REGIONAL PLANNING

Massachusetts Institute of Technology, Cambridge MA
Sept. 1986 - May 1988. Focus on role of technology in regional industrial
development.

INGENIERO COMERCIAL (professional degree, Economist)

Universidad de Chile, Department of Economics, Santiago, Nov. 1983.

B.S. IN ECONOMICS

Universidad de Chile, Department of Economics, Santiago, Dec. 1982

POSITIONS

NORTHEASTERN UNIVERSITY, D'AMORE-McKIM SCHOOL OF BUSINESS, Boston, MA

July 2015 – present

Jean C. Tempel Professor of Entrepreneurship and Innovation. Group Chair,
Entrepreneurship and Innovation (2017-present). Faculty lead, FAS Center for Global
Business. Head of the Recruiting Committee, Entrepreneurship and Innovation
Group. Teaches graduate course “Competing in High Technology, Innovation-Driven
Markets.”

BOSTON UNIVERSITY SCHOOL OF MANAGEMENT, Boston, MA

August 2004 – June 2015.

Associate Professor of Management, Dean's Research Fellow. Founder and Chair,
Strategy & Innovation Department (2009-2013). Taught MBA/EMBA courses
“Competitive Strategy;” “Technology and Innovation;” and “Information and
Technology Strategies in a Networked Economy.” Designed and launched two
electives, “Technology Strategy” and “Strategy for Technology-Based Firms.”

HITOTSUBASHI UNIVERSITY, Tokyo, Japan

September 2011 – January 2012

Visiting Associate Professor. Taught seminars for Ph.D. students and faculty at
Hitotsubashi's Institute for Innovation Research.

MIT SLOAN SCHOOL OF MANAGEMENT, Cambridge, MA

April 2009 – April 2011

Research Affiliate at the Center for Digital Business.

LONDON BUSINESS SCHOOL, London, United Kingdom

October 2000 – July 2004

Associate Professor of Technology Management. Taught MBA courses “Technology
Strategy,” “Technology & Competition,” and several modules in executive education
programs.

MIT SLOAN SCHOOL OF MANAGEMENT, Cambridge, MA

September 1997 - July 1998

Visiting Associate Professor of Management. Taught “Managing Innovation and
Technological Change” in the MOT (now Sloan Fellows) and MBA programs; and
“Business Environments: Latin America” in the MBA program.

UNIVERSIDAD ADOLFO IBANEZ, ESCUELA DE NEGOCIOS, Viña del Mar, Chile

September 1992 - September 2000

Founder, Professor and Director, MBA International Program – Chile’s first global MBA and today one of the leading MBAs in all Latin America. Designed the entire degree program from scratch and directly managed the marketing and recruiting strategy in more than 10 countries. Taught “Competitive Strategy” and “Technology & Innovation” at the MBA level. Also taught executive education seminars to many of the largest and most prominent companies in Chile and Latin America.

MIT SLOAN SCHOOL OF MANAGEMENT, Cambridge, MA

1988 -1992. Research Associate, worked with Professors Michael Cusumano and Charles Fine, on manufacturing flexibility; with Prof. James Utterback, on patterns of industrial innovation; and with Prof. Donald A. Schön on a book about technology and change. T.A. for graduate courses "Microeconomics" and "Operations Management."

BOSTON REDEVELOPMENT AUTHORITY, Division of Research, Boston, MA

January 1989 and June - August 1988. Full-time consultant in the research project "Future industries for the City of Boston." Identified high-growth technology industries and evaluated mechanisms by which the City could attract firms in these industries.

EXPORT PROMOTION CORPORATION, Chile

January 1984 - July 1986. Chairman of a regional office of the Export Promotion Corporation (ProChile). Designed international market strategies for small and medium-sized firms and acted as their consultant for international expansion activities.

UNIVERSIDAD DE CHILE, School of Economics and Management

November 1985 - July 1986. Associate Researcher at the Interdisciplinary Program in Future Research. Researched trends and evolution of high-technology markets worldwide.

RESEARCH INTERESTS

My research centers on the determinants of firm performance along the different stages of an industry life cycle. I study primarily high-technology sectors, particularly telecoms, computers, and software. My main areas of inquiry are:

- Entry Timing Advantages. I look at the effect of entry timing on firm survival and performance, and the conditions that enable the existence of first mover advantage.
- Dominant Designs, Technology Battles and Platform Markets. My earlier research provided one of the first (and still relatively few) pieces of empirical evidence on the existence of dominant designs. My current work explores the strategic maneuvering and competitive dynamics that firms exploit to achieve dominance in platform markets characterized by strong network effects.
- Categorical Dynamics. I study the “fuzzy front end” of industry evolution from a socio-cognitive perspective. In particular, the mechanisms that underlie the co-evolution of categories and technological designs in nascent market spaces, and the determinants and implications of category adoption.
- Strategy under Uncertainty. I study how organizations operate and perform under situations of high environmental uncertainty, with particular emphasis on the role of heuristics and improvisation.
- Role of Services for Product Firms. This research encompasses both theory development and empirical testing to investigate the increasing importance of services for product firms at different stage of industry evolution.

IMPACT

Citations as of Summer 2018

Google Scholar: 4,700+

Ten articles with more than 100 citations each in Google Scholar.

H-index = 23; i10 Index = 27

I regularly present my research in major scholarly conferences and as an invited speaker at major research universities in the U.S., Europe, and to a lesser extent, Asia and Latin America (average approximately 4-6 presentations per year).

GRANTS AND HONORS

I have served as principal investigator in research grants totaling more than 2 million dollars, from highly-respected grant-giving institutions in the US and Europe. My research and teaching have been recognized in many instances.

Principal Investigator, \$620,000 National Science Foundation Grant, NSF#7001886 (Stine Grodal, co-PI), "Dominant Categories, Industry Life Cycles and Entry Timing Advantages." Three-year grant awarded in October 2010.

Principal Investigator, \$15,000 grant from the Sloan Industries/IMVP program, The Wharton School, for research on the role of services in product industries, 2008.

Principal Investigator, Leverhulme Foundation (UK) £1.2M grant to study the impact of Information Technologies on industries and organizations; London, 2003.

Winner, "Best Symposium" Award from the Academy's Organization and Management Theory (OMT) Division, AOM 2014 Annual Meeting for "Industry Evolution Revisited" (Suarez and Grodal).

Finalist for Best Paper Award, Technology & Innovation Management Division, AOM, 2011, for "Entry Timing Advantages and the Categorical Dynamics of the Industry Life Cycle" (with Stine Grodal and Aleksios Gotsopoulos).

Dean's Research Fellow, Boston University School of Management, 2011-2015.

"Innovation, Competition and Industry Structure" recognized as the third most-cited among all articles published in Research Policy during the decade 1990-1999 (Retrospective Evaluation, vol. 28, 911-919, 1999).

2014 John R. Russell Award for Teaching Excellence (best professor), EMBA Program, Boston University, elected by student vote.

2010 John R. Russell Award for Teaching Excellence (best professor), EMBA Program, Boston University, elected by student vote.

2008 John R. Russell Award for Teaching Excellence (best professor), EMBA Program, Boston University, elected by student vote.

Selected for Membership in Beta Gamma Sigma, 2008.

"Best MBA/EMBA Professor" prize, Universidad Adolfo Ibáñez (1995 & 1996).

M.I.T. Leaders for Manufacturing Program Grant for doctoral dissertation research, 1990-1992.

M.I.T. International Center for Research on the Management of Technology Grant for doctoral dissertation research, 1991-1992.

Chilean Ministry of Education Fellowship in support of graduate studies at M.I.T., 1987-1988.

PUBLICATIONS

"Familiarity, Creativity, and the Adoption of Category Labels in Technology Industries," (with Diego Zunino and Stine Grodal), *Organization Science*, 2018, forthcoming.

"The Hybrid Trap: What Established Firms Need to Avoid to Survive Industry Transformations," (with James Utterback, Paul Von Gruben, and Hye Young Kang), *MIT Sloan Management Review*, Spring Issue, p. 52-27, 2018.

"Mastering the 'Name Your Product Category' Game," (with Stine Grodal), *MIT Sloan Management Review*, Winter Issue, p. 23-29, 2015.

"The Co-Evolution of Technologies and Categories during Industry Emergence" (with Stine Grodal and Aleksis Gotsopoulos), *Academy of Management Review*, 40: 423-445, 2015.

"Services, Industry Evolution and the Competitive Strategies of Product Firms" (with Michael Cusumano & Steve Kahl), *Strategic Management Journal*, 36: 559-575, 2015.

"Perfect Timing? Dominant Category, Dominant Design and the Window of Opportunity for Firm Entry" (with Stine Grodal and Aleksis Gotsopoulos), *Strategic Management Journal*, 36: 437-448, 2015.

Special Issue on Entry Timing Strategies, *Long Range Planning* (with Andrea Fosfuri and Gianvito Lanzolla, co-editors), vol. 46:4-5, p. 297-416, August-October Issue, 2013.

"Entry Timing Strategies: The Road Ahead," (with Andrea Fosfuri and Gianvito Lanzolla), *Long Range Planning*, vol. 46:4-5, p. 300-311, August-October Issue, 2013.

"Services and the Business Models of Product Firms: An Empirical Analysis of the Software Industry" (with Michael Cusumano & Steve Kahl), *Management Science*, vol. 59:2, p. 420-435, 2013.

"Dethroning an Established Platform" (with Jax Kirtley), *MIT Sloan Management Review*, Vol. 53:4, p. 35-41, 2012 (Summer).

"The Answer is Blowing in the Wind of Creative Destruction: Reflections on the Strategic Management of Technology and Innovation Research," Special Issue on Strategic Management of Technology and Innovation, European Academy of Management and Business Economics, *Revista Europea de Direccion y Economía de la Empresa*, vol. 21, p. 154-156, 2012.

"Closing the Technology Adoption–Use Divide: The Role of Contiguous User Bandwagon" (with Gianvito Lanzolla), *Journal of Management*, vol. 38:3, p. 836-859, 2012.

"Entry Timing Advantages and the Categorical Dynamics of the Industry Life Cycle" (with Stine Grodal and Aleksios Gotsopoulos), *Academy of Management Best Paper Proceedings*, 2011. (Finalist for the 2011 Best Paper Award, Technology & Innovation Management Division).

"The Role of Services in Platform Markets" (with Michael Cusumano). Chapter in A. Gawer (ed.) *Platforms, Markets and Innovation*, Edward Elgar Publishing, 2010.

"Considerations for a Stronger First Mover Advantage Theory" (with Gianvito Lanzolla), *Academy of Management Review*, vol. 33(1):269-270, 2008.

"The Role of Environmental Dynamics in Building a First-Mover Advantage Theory" (with G. Lanzolla), *Academy of Management Review*, vol. 32(2): 377-392, 2007.

"Economic Reforms and the Competitive Environment of Firms" (with Rogelio Oliva), *Industrial & Corporate Change*, vol 16(1): 131-154, 2007.

"Network Effects Revisited: The Role of Strong Ties in Technology Selection," *Academy of Management Journal*, vol. 48(4):710-720, 2005.

"Environmental Change and Organizational Transformation" (with Rogelio Oliva), *Industrial and Corporate Change*, vol. 14(6):1017-1041, 2005.

"The Half-Truth of First Mover Advantage" (with Gianvito Lanzolla), *Harvard Business Review*, 83(4):121-127, 2005 (April).

"Battles for Technological Dominance: An Integrated Framework," *Research Policy*, vol. 33(2):271-286, 2004.

"Learning to Compete: Transforming Firms in the Face of Radical Environment Change" (with Rogelio Oliva), **Business Strategy Review**, vol. 13(3):62-71, 2002.

"Strategies for Survival in Fast-Changing Industries" (with Clayton Christensen and James Utterback), **Management Science**, vol. 44(12, part 2 of 2), 1998.

"An Empirical Study of Manufacturing Flexibility in Printed Circuit Board Assembly" (with Michael Cusumano and Charles Fine), **Operations Research**, vol. 44(1):223-240, 1996.

"Dominant Designs and the Survival of Firms" (with James Utterback), **Strategic Management Journal**, vol. 16(6), 415-430, 1995.

"An Empirical Study of Flexibility in Manufacturing" (with Michael Cusumano and Charles Fine), **MIT Sloan Management Review**, vol. 37:25-32, 1995.

"Innovation, Competition, and Industry Structure" (with James Utterback), **Research Policy**, vol. 22:1-21, 1993 (Third most-cited paper during 1990-1999, as noted in Retrospective Evaluation, Research Policy 28, 1999, pp. 911-919).

"Patterns of Industrial Evolution, Dominant Designs and Firms' Survival" (with James Utterback), Chapter in Robert Burgelman and Richard S. Rosenbloom (eds.), **Research on Technological Innovation, Management and Policy**, Greenwich, Connecticut: JAI Press, vol. 5:47-87, 1993.

Spanish Language Publications:

"Competitividad: El Gran Desafío de las Empresas Chilenas" (book, with Luis H. Paul, co-editors), Centro de Estudios Públicos, Santiago, 1996.

"Gestión de la Tecnología", **Revista de Negocios**, vol. 5, 1995.

"La Competitividad del Vino Chileno" (with Julio Vergara), in Luis H. Paul y F. Suarez (eds.), **Competitividad: El Gran Desafío de las Empresas Chilenas**, CEP, Santiago, 1996, pp. 131-164.

"La Competitividad de las Empresas: Evolución, Imperativos Estratégicos y Características de la Organización Exitosa de Hoy," in L.H. Paul y F. Suarez (eds.), **Competitividad: El Gran Desafío de las Empresas Chilenas**, CEP, Santiago, 1996, pp. 45-76.

ARTICLES UNDER REVIEW AND WORKING PAPERS

"An Integrative Perspective of Organizational Responses: Routines, Heuristics and Improvisation on a Mt. Everest Expedition," (with Juan S. Montes), Revise and Resubmit, **Organization Science**, Summer 2018.

"Smart Timing for Smart Products? Complementor Multihoming in Nascent Product Markets," (with Senem Aydin, Yakov Bart, and Dirk Libaers), under review, **Strategic Management Journal**.

"Intra-platform Envelopment: The Coopetitive Dynamics between Platform Owners and Platform Complementors," in preparation for re-submission to **Organization Science**.

Linguistic Drivers for Category Label Adoption (with Diego Zunino and Stine Grodal), in preparation for submission to **Strategic Management Journal**, Summer 2018.

"First Mover Advantages in Highly-Dynamic Environments: A Study of the iPhone Platform and its Ecosystem of Complementors" (with Arati Srinivasan), R&R, **Journal of Management**, summer 2016 (on hold collecting additional data).

"Why do Category Labels Stick?" (with Stine Grodal and Diego Zunino), working paper, presented in DRUID Conference, Copenhagen, June 2014. In preparation for submission to **Organization Science**.

Firm Strategy and industry Evolution, book; ongoing.

Foundational Thinking About Innovation: Selected Papers of James M. Utterback (vol. 2), F. Suarez (editor), World Scientific Publishing; work in progress.

**UNPUBLISHED
WORKING
PAPERS AND
PH.D. THESIS**

“Product, Process, and Service: A New Industry Lifecycle Model” (with Michael Cusumano and Steve Kahl), MIT Sloan School of Management Working Paper #228, 2006.

“Strategy and Manufacturing Flexibility: A Case Study on the Assembly of Printed Circuit Boards” Ph.D. Thesis, MIT Sloan School of Management, 1992.

“Flexibility and Performance: A Literature Critique and Strategic Framework” (with Michael Cusumano and Charles Fine), Working Paper #3298-BPS, MIT Sloan School of Management, 1991.

**CASES AND
TEACHING
MATERIAL**

“Nokia’s Burning Platform: How Apple and Google Transformed the Mobile Industry,” Amazon Kindle multimedia case study, 2014.

“LAN Airlines Takes Over the World: TAM Acquisition” (with Jorge Tarzijan and Greg Collier), Amazon Kindle multimedia case study, 2014.

“FMP: Growing the Business in a Transition Economy” (with K. Faulkner), Amazon Kindle multimedia case study, 2014.

“Symbian vs. Google vs. Apple in the Mobile Space,” A. (with Ben Edelman & Arati Srinivasan), Harvard Business School Publishing, Case #9-909-055, April 2009.

“Symbian vs. Google vs. Apple in the Mobile Space,” B (with Ben Edelman & Arati Srinivasan), Harvard Business School Publishing, Case #9-909-056, April 2009.

“The Battle for Web Services: Sun versus Microsoft,” Harvard Business School Case #9-805-095, March 2005 (with Tom Eisenmann).

“Symbian: Setting the Mobility Standard,” Harvard Business School Case #9-804-076, October 2003 (with Tom Eisenmann).

“Nokia N-Gage: Not an Easy Game,” London Business School Case, 2004.

“CTC S.A.: Competence Building,” MIT Sloan School of Management, 1999. Describes the evolution and current challenges of CTC, a Latin American subsidiary of Spain’s Telefonica (with Donald Lessard and Alvaro Cuervo).

“Hypercompetition in the Chilean Telecommunication Industry,” MIT Sloan School of Management, 1999. Industry notes on the intense rivalry in the Chilean telecommunications sector, with a brief description of the each player’ strategy (with Donald Lessard and Alvaro Cuervo).

“B. Bosch S.A.,” Universidad Adolfo Ibanez, No-33370, 1998. A state-of-the-art hot-dip galvanizing firm in Latin America, with plants in Brazil and Chile. Case focusing on Bosch’s operations and key challenges regarding environmental management.

“Eperva S.A.,” Universidad Adolfo Ibanez, No-33371, 1996. Large fishing company operating along the South Pacific Ocean; case describes how Eperva develops an innovative, environment-friendly new technology for producing fishmeal.

“Unlimited S.A.,” Universidad Adolfo Ibanez, No-33373, 1996. Describes the situation and massive commercial challenges of a high-technology start-up in Chile; a provider of interactive multimedia content for the European and US markets.

“Ultratech S.A.,” Universidad Adolfo Ibanez, No-33369, 1997. Describes the search for venture capital funding and commercial partners by a small R&D-based firm (ultrasound technology).

PROFESSIONAL LEADERSHIP AND SERVICE

2010-11 Division Chair, Technology and Innovation Management (TIM) Division, Academy of Management. Five-year appointment to the Executive Committee, 2007-2012.

Representative-at-large, Executive Committee, Technology and Innovation Management (TIM) Division, Academy of Management. Two-year appointment, 2004-2006.

Co-Organizer of several influential scholarly conferences, such as the 2014 CCC Doctoral Student and Faculty Conference (<http://ccc.strategy-and-entrepreneurship.net>); the 2014 Charles River Conference ([program here](#)); and the 2012 Madrid Conference on Entry Timing Strategies.

Ad-hoc reviewer for most of the top journals in strategy and technology management, including *Organization Science*, *Strategic Management Journal*, *Management Science*, *Academy of Management Review*, and *Research Policy* (about 8 or 10 reviews per year).

Member of the expert panel of the National Science Foundation's Science of Organizations (SoO) Program, 2013. The expert panel reviews the submissions received by the Science of Organizations program to determine which of them merit funding.

Member of the Editorial Board of *Management Research*, 2002-2006.

MENTORING AND Ph.D. ADVISING

Served as the main advisor or doctoral committee member of nearly ten Ph.D. students at Boston University or other institutions around the globe: Diego Zunino (Copenhagen Business School, current student); Jax Kirtley (Boston University, currently Assistant Professor at Wharton); Hye Young Kang (Boston University, currently Assistant Professor at Singapore Management University); Carmelo Cennamo (IE Business School, currently assistant professor at Bocconi University); Phil Anderson (MIT Sloan, currently assistant professor at U. of Illinois); Arati Srinivasan (Boston University, currently assistant professor at Providence College); Simon den Uijl (Rotterdam School of Management, Erasmus University); and Sharon Gillett (Boston University, left for a government position). In addition, I have sponsored one post-doc for two years (Aleksios Gotsopoulos, Ph.D. Chicago, currently assistant professor at SKK School of Business, South Korea), and several visiting Ph.D. students.

TEACHING

Courses taught: Competing in High Technology Markets (Northeastern, graduate); Competitive Strategy (BU, graduate, EMBA); Technology and Innovation Management (BU, graduate, EMBA); Strategy Core (BU, MBA); Technology Strategy (BU, graduate); Information Systems Core (BU, MBA); Technology and Innovation Management (MIT Sloan, graduate); Technology and Competition (LBS, graduate); Technology Strategy (LBS, graduate); Operations and Technology Management (LBS, graduate); Strategy Core (Universidad Adolfo Ibáñez); Innovation and Technology Management (Universidad Adolfo Ibáñez).

Curriculum Design: Competing in High Technology Markets (Northeastern, graduate); Technology Strategy (BU, MBA-PEMBA); Strategies for High-Technology Industries elective (BU, undergraduate); Technology Strategy (LBS, graduate).

Executive Education: Designed customized executive education programs for large corporate clients, including Ericsson, Nokia, BP, and iBasis-KPN.

Student Evaluations in Courses/Programs taught at Boston University from 2007 to 2015:

Average for Degree Program Courses: 4.67 (out of 5.0 maximum)

Average for Executive Education: 4.75 (out of 5.0 maximum)

BOARD OF DIRECTORS / ADVISORY BOARDS

Current or past member of the Board of Directors of the following organizations:

- International Academic Advisory Board of ESE, Graduate Business School, Universidad de los Andes, Chile, 2004 – present.

- Cruz Verde S.A., pharmacy chain with 500+ stores (1996 – 2008).
- Neosecure S.A., a leading internet security firm in Latin America (2003 – 2012); Chairman of the Board.
- Educacion Digital S.A. (2004 – 2008).
- B. Bosch S.A., engineering, galvanizing and construction company with operations in Brazil, Chile, Peru, and Uruguay (1994-2000).
- Mekano S.A., software firm specializing in ERP solutions, treasury management, and corporate control systems; with offices in Santiago, Chile and Lima, Peru (1998-2000).
- Oregon S.A., a diversified group with activities in different sectors (1999 - 2001).

**ENTREPRE-
NEURIAL
ACTIVITIES**

Founder of a software start-up, Rezebra Technologies, an early cloud-computing provider of web-based scheduling and productivity-enhancing applications for the health care sector, founded in 2001 (today folded into a larger company). Early angel investor in several startups, including cyber security provider Neosecure (www.neosecure.com) and multi-angle video experience platform Rhinobird (<https://rhinobird.tv/>).

Founder and Dean (5 years), MBA International Program at Universidad Adolfo Ibanez, Chile. Overcoming initial skepticism, I managed to make the MBA International a great success. This helped position Adolfo Ibanez among the best business schools in Latin America, a position that it has held since then.

CONSULTING

Consultant and instructor in the areas of innovation practices, R&D management, competitive strategy, and new product development. Clients include firms in the following sectors: software, telecommunications, retail, semiconductors, mining, leather and fashion, printing, insurance, manufacturing, and government.

LANGUAGES

Fluent in English and Spanish, intermediate French.

CITIZENSHIP

Citizen of the United States and Chile.

**PERSONAL
INTERESTS**

Running; Spanish guitar; Skiing; Cycling; Squash.