

Stylios (Stelios) Kavadias

Contact Address

College of Management
Georgia Institute of Technology
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EMPLOYMENT

- May 2008-now** **Georgia Institute of Technology** **Atlanta, USA**
College of Management
Edward J. Brown Jr. Associate Professor, Operations Management
- Feb 2002-May 2008** **Georgia Institute of Technology** **Atlanta, USA**
College of Management
Assistant Professor, Operations Management
- Sep 2001-Jan 2002** **INSEAD** **Fontainebleau, France**
Research Associate, Technology Management Group

OTHER APPOINTMENTS

- 2005-present** **ALBA Graduate School of Business** **Athens, Greece**
Visiting Professor of OM
P-MBA program
- 2008-2010** **Darden School of Business** **Charlottesville, USA**
Visiting Associate Professor OM
Batten Institute of Innovation Fellow

EDUCATION

- 1997-2001** **INSEAD Ph.D. in Management** **Fontainebleau, France**
Dissertation : Project Portfolio Selection and Resource Allocation in New Product Development
Area of Specialization: Operations Management
MSc in Management
- 1992-1997** **National Technical University Athens (NTUA)** **Athens, Greece**
Diploma in Electrical Engineering and Computer Engineering (MSc Equiv.)

RESEARCH INTERESTS

My research interests center on the effectiveness of new product development (NPD) decisions with a particular focus on decisions that relate to: (i) strategy implementation

through the appropriate resource allocation rules and the definition of the “right” portfolio of new projects and products; (ii) the R&D ideation, search and experimentation process both at a firm level and the project team level; (iii) the effects of the organizational design and the associated incentive schemes on the product development outcome. At a broader level I seek to understand the challenges that arise during the planning and execution phases of the innovation process, always with an operational/managerial perspective.

RESEARCH PUBLICATIONS

S. Kavadias and S. Sommer (2009) “The Effects of Problem Structure and Team Diversity on Brainstorming Effectiveness” forthcoming *Management Science*

R. O. Chao, S. Kavadias, and C. Gaimon (2009) “Revenue Driven Resource Allocation: Funding Authority, Incentives, and NPD Portfolio Management,” forthcoming *Management Science*.

P. Lacourbe, C. H. Loch, and S. Kavadias (2009) “Product Positioning in a two-dimensional market space” *Production and Operations Management*, 18 (3), 315-332.

R. O. Chao and S. Kavadias (2008) “A Theoretical Framework for Managing the NPD Portfolio: When and How to Use Strategic Buckets”, *Management Science*, 54 (5), 907-921.

S. Erat and S. Kavadias (2008) “Sequential Testing of Product Designs: Implications from Learning,” *Management Science*, 54 (5), 956-968.

S. Erat and S. Kavadias (2006) “Introduction of New Technologies to Competing Industrial Customers”, *Management Science*, 52 (11), 1675-1688.

X.DeGroote, E. Yucesan and S. Kavadias (2005) “The Impact of Product Variety on Logistics Performance”, forthcoming *IIE Transactions*

S. Kavadias, and C. H. Loch (2003) “Optimal Project Sequencing with Recourse at a Scarce Resource”, *Production and Operations Management*, Vol. 12 (4), pp. 433-444

C. H. Loch and S. Kavadias (2002) “Dynamic Portfolio Selection of NPD Programs using Marginal Returns,” *Management Science*, Vol. 48 (10), pp.1227-1241

G. N. Mentzas, C. Halaris and S. Kavadias (2001) “Modeling Business Processes with Workflow Systems: An Evaluation of Alternative Approaches”, *International Journal of Information Management*, Vol. 21, pp. 123-135

BOOKS

S. Kavadias and C. H. Loch, 2003, *Project Selection Under Uncertainty: Dynamically Allocating Resources to Maximize Value*, Hillier International Series in Operations Research and Management Science, Kluwer Academic Publishers

C. H. Loch, and S. Kavadias (editors), *Handbook of Research in New Product Development*, Elsevier/Butterworth, Oxford, forthcoming October 2007.

BOOK CHAPTERS

G. N. Mentzas, S. K. Kavadias, and C. Halaris, (1998) "Workflow Modeling in Project Management Processes: Application to the EU Operational Program for the Energy Sector", in G. Doukidis et al (eds) *Integrating Technology and Human Decisions: Global Bridges into the 21st Century*.

S. Kavadias, and E. M. Tentzeris (2004) "Can the Academic R&D Output Enhance Economic Development?" *Proceedings of the Education and Development Conference*, pp. 123-145.

R. O. Chao, and S. Kavadias (2004) "Strategic NPD Portfolio Management in Complex Environments", in Van Wassenhove L. N. J. et al. (eds.) *Operations Management as a Change Agent*, Vol. 1, pp.701-710, INSEAD Publications.

S. Kavadias, and E. M. Tentzeris (2005) "Technology Investments in Distance Learning: A Microeconomic Model Offers Lessons From the Executive Education efforts in the US," (in Greek), *Proceedings of the Pan-Hellenic Conference in Continuous Education*.

C. H. Loch, and S. Kavadias (2007) "Managing New Product Development: An Evolutionary Framework", chapter 1, 1-26, in Loch C. H. and Kavadias S. (eds.) *Handbook of Research in New Product Development Management*, Elsevier/Butterworth, Oxford, UK.

S. Kavadias and R. O. Chao (2007) "Resource Allocation and New Product Development Portfolio Management," chapter 7, 135-163, in Loch C. H., and Kavadias S. (eds.) *Handbook of Research in New Product Development Management*, Elsevier/Butterworth, Oxford UK.

C. H. Loch and S. Kavadias (2009) "Implementing Strategy through Portfolios of Projects" chapter to appear in the Oxford Handbook in the Management of Projects, edited by P. Morris, J. Pinto and J. Söderlund.

WORKING PAPERS

J. Hutchison-Krupat and S. Kavadias (2009) "Organizational Enablers for NPD Portfolio Management" submitted *Management Science*

V. Agrawal, S. Kavadias and B. Toktay (2009) "Design and Introduction of Conspicuous Durable Products," submitted *Management Science*.

G. Ozkan, C. Gaimon, and S. Kavadias (2009) "Knowledge Management Strategies for Product and Process Design Teams" submitted *Management Science*

S. Erat, S. Kavadias and C. Gaimon (2009) "The Pitfalls of Subsystem (Over-)Integration" 2nd round, *Management Science*.

R. O. Chao and S. Kavadias (2009) "R&D Intensity and the NPD Portfolio," Working Paper.

J. Hutchison-Krupat and S. Kavadias (2008) “NPD Incentives, Strategy and Profit Targets: Making the Front-End... Fuzzier?” Working paper

N. Oraopoulos, and S. Kavadias (2008) “Is Diversity (Un)Biased? Cross Functional Teams and Project Termination Decisions” Working Paper.

N. Oraopoulos, and S. Kavadias (2008) “The Role of Informational Spillovers on Competitive R&D Search,” working paper

S. Bhattacharya, and S. Kavadias (2007) “Investment in Sequential New Product Development with Learning”: Working Paper

M. Ferguson and S. Kavadias (2006) “Product Quality Choice, Competition, and the Supply Chain Design”: Working Paper.

S. Erat and S. Kavadias (2006) “Decision-making Under Ambiguity”: Working paper

S. Erat and S. Kavadias (2006) “Managing the new product co-development process”: Working paper

S. Kavadias, C. H. Loch, and U. A. S. Tapper (2005) “Allocating the R&D Budget at GemStone”, INSEAD Working Paper

S. Kavadias and C. H. Loch (2003) “An Optimal Project Admission Policy in New Product Development”, INSEAD Working Paper.

RESEARCH IN PROGRESS

“Organization Structure, Incentives and the Innovation Portfolio” (joint work with R. O. Chao, assistant professor OM, Darden School of Business): research in progress

“Incentives in Collaborative Innovation: an experiment,” (joint work with J. Hutchison-Krupat and R. O. Chao) research in progress

“Search strategies during brainstorming,” (joint work with S. Sommer) research in progress

“The Directional Effects of R&D Spillovers,” (joint work with N. Oraopoulos and M. Ceccagnoli): research in progress.

CONFERENCE AND RESEARCH PRESENTATIONS

Conference Presentations

“Design and Introduction of Conspicuous Durable Products,” POMS National Meeting 2009, Orlando FL

“Tolerance for Failure and the Incentives for Collaborative Innovation,” POMS National Meeting 2009, Orlando, FL

“The Effects of Team Diversity and Problem Structure on Brainstorming,” *INFORMS National Meeting 2008*, Washington DC

"Is Diversity (Un-)Biased? Team Structure and Project Termination," *INFORMS National Meeting 2008*, Washington DC

"Functional Coordination, Incentives and Decentralized Decision Processes in NPD" *INFORMS National Meeting 2008*, Washington DC

"R&D Intensity and the NPD Portfolio," *INFORMS National Meeting 2008*, Washington DC

"The Role of Informational Spillovers on Competitive R&D Search," *INFORMS National Meeting 2008*, Washington DC

"The Implicit Incentives in the NPD Organizational Structure," *POMS National Meeting 2008*, San Diego, CA

"R&D Intensity and the NPD Portfolio," *POMS National Meeting 2008*, San Diego, CA

"The Role of Informational Spillovers on Competitive R&D Search," *POMS National Meeting 2008*, San Diego, CA

"Budget Creation and Control for Effective NPD Portfolio Management," *INFORMS National Meeting 2007*, Seattle WA

"The Effects of NPD Team Structure on Project Termination," *INFORMS National Meeting 2007*, Seattle WA

"Product Quality Choice, Competition and the Supply Chain Design," *INFORMS National Meeting 2007*, Seattle, WA

"The Effect of Problem Structure and Team Diversity on Brainstorming Effectiveness," *INFORMS National Meeting 2007*, Seattle, WA.

"The Effect of Problem Structure and Team Diversity on Brainstorming Effectiveness," *POMS National Meeting 2007*, Dallas, TX.

"The Role of Informational Spillovers on Competitive R&D Search," *POMS National Meeting 2007*, Dallas, TX

"A Theoretical Framework for Managing the NPD Portfolio: When and How to Use Strategic Buckets," *INFORMS National Meeting*, Pittsburgh, PA.

"Budget Creation and Control for Effective NPD Portfolio Management," *INFORMS National Meeting 2006*, Pittsburgh, PA.

"Managing the Co-development Process," *INFORMS National Meeting 2006*, Pittsburgh, PA.

"The Effects of NPD Team Structure on Project Termination," *INFORMS National Meeting 2006*, Pittsburgh, PA.

"Introducing New Products: the Role of Early Stock-outs," *MSOM Conference 2006*, Atlanta, GA

"Product Quality Choice, Competition and the Supply Chain Design," *MSOM Conference 2006*, Atlanta, GA

"The Effects of NPD Team Structure on Project Termination," *MSOM Conference 2006*, Atlanta, GA.

"Licensing of Component Technologies," *MSOM Conference 2006*, Atlanta, GA

"R&D Intensity: the Missing Link in Portfolio Strategy," *POMS National Meeting 2006*, Boston, MA

"Budget Creation and Control for Effective NPD Portfolio Management," *POMS National Meeting 2006*, Boston, MA

"Managing the Co-development Process," *POMS National Meeting 2006*, Boston, MA

"The Effects of NPD Team Structure on Project Termination," *POMS National Meeting 2006*, Boston MA.

"Horizontal and Vertical Differentiation of Manufactured Goods," *POMS National Meeting 2006*, Boston, MA

"Horizontal and Vertical Differentiation of Manufactured Goods," *INFORMS National Meeting 2005*, San Francisco, CA

"Licensing Component Technologies," *INFORMS National Meeting 2005*, San Francisco, CA

"Strategic NPD Resource Allocation with an Endogenous Budget", *INFORMS National Meeting 2005*, San Francisco, CA

"R&D Portfolio Management" Invited Speaker, PDMA Summit, September 2005, Atlanta, GA

"Strategic NPD Resource Allocation with an Endogenous Budget" *POMS National Meeting 2005*, Chicago, IL.

"Dynamic Testing of Product Designs" *POMS National Meeting 2005*, Chicago, IL

"Introduction of New Technologies to Industrial Customers" *INFORMS National Meeting 2004*, Denver, CO (invited to present in a special "deep dive" session for finalized papers with a designated discussant)

"Strategic NPD Portfolio Management in Complex Environments" *INFORMS National Meeting 2004*, Denver, CO

"Dynamic Testing of Product Designs" *INFORMS National Meeting 2004*, Denver, CO

"Strategic NPD Portfolio Management in Complex Environments" *Euroma 2004 Conference*, Fontainebleau, France

"Dynamic Testing of Product Designs" *MSOM 2004 Conference*, Eindhoven, Netherlands

"Strategic Portfolio Management in Highly Complex and Uncertain Environments" *POMS National Meeting 2004*, Cancun, Mexico

"Can the Academic R&D Output Enhance Economic Development?" *Conference on Education and Development 2004*, Lamia, Greece

"Introduction and Pricing of New Technologies" *INFORMS National Meeting 2003*, Atlanta, GA

"Managing Dynamically Product Portfolios" *INFORMS National Meeting 2003*, Atlanta, GA

“Dynamic Introduction of New Technologies: Implications for Technology Adoption”, *POMS National Meeting 2003*, Savannah, GA
 “Optimal Resource Allocation in an NPD Project Portfolio”, *INFORMS National Meeting 2002*, San Jose, CA
 “Dynamic Selection of NPD Programs”, *MSOM Conference 2002*, Ithaca, NY
 “A Dynamic New Product Development Project Portfolio for Uncertain Market Conditions” *INFORMS National 2000 Meeting*, San Antonio, TX
 “Dynamic Resource Allocation in Multi-Project Environments” *INFORMS Fall 1999 Meeting*, Philadelphia, PA
 “Workflow Modeling in Project Management Processes: Application to the EU Operational Program for the Energy Sector *Proceedings of 5th International Conference of Decision Science Institute (DSI)*, July 1998, Athens, Greece.

Invited Presentations

“Functional Coordination, Incentives and Decentralized Decision Processes in NPD” Om Seminar Series, ESSEC Business School, 2008, Paris, FRANCE
 “Defining Products by Sequential Investments in R&D with Learning Across Projects,” OIM Seminar Series, Marshall School of Business, USC, 2007 Los Angeles CA
 “The Effects of NPD Team Structure on Project Termination,” OM Seminar Series, Kenan-Flagler Business School UNC, 2006, Chapel-Hill, NC.
 “Strategic NPD Resource Allocation with an Endogenous Budget” OM Research Seminar Series, Owen Graduate School of Management, Vanderbilt University, 2005, Nashville, TN
 “Strategic NPD Portfolio Management in Complex Environments” Decision Sciences Seminar Series, London Business School (LBS) 2004, London, UK
 “Strategic NPD Portfolio Management in Complex Environments” Research Seminar Series, Athens Laboratory of Business Administration (ALBA), 2004, Athens, Greece
 “Optimal Resource Allocation in an NPD Project Portfolio” MIT OM-System Dynamics Research Seminar Series, MIT 2003, Boston, MA
 “Optimal Resource Allocation in an NPD Project Portfolio”, AUEB-MSL Research Seminar Series, Athens University of Economics and Business 2002, Athens, Greece
 “Portfolio selection for New Product Development,” NYU OM Research Seminar Series, NYU 2001, New York University, NY
 “Portfolio selection for New Product Development,” University of Michigan OM Research Seminar Series, University of Michigan 2001, Ann Arbor, MI
 “Portfolio selection for New Product Development,” Olin School of Business OM Research Seminar Series, Washington University at Saint-Louis 2001, Saint-Louis, MO
 “Portfolio selection for New Product Development,” The Wharton School OPIM Research Seminar Series, University of Pennsylvania 2001, Philadelphia, PA
 “Portfolio selection for New Product Development,” Kellogg School of Management MEDS Research Seminar Series, Northwestern University 2001, Evanston, IL

HONORS & AWARDS

- 2009 Brady Family Award for Faculty Research Excellence, Georgia Institute of Technology
- 2008-2009 Batten Fellow in Innovation, Darden School of Business, University of Virginia
- First prize for the case “Dragonfly” in the 2003 ECCH (European Case Clearing House) competition, in the Production and Operations Management category
- Cluster Chair *INFORMS National Meeting 2003* (NPD Cluster) Atlanta, GA
- 2nd Prize in “George B. Dantzig” Dissertation Award of INFORMS
- Participant in 2001 INFORMS Doctoral Colloquium
- Ph.D. Fellowship awarded by INSEAD (1997-present)
- Distinctions awarded by the Greek Mathematics Society for outstanding performance in the nation-wide “THALES” mathematics examination (1990, 1991)
- Elected President of Student Union in the Electrical Engineering Department (1996)

- Greek Representative of the annual students' meeting "EUROSCOLA" in the European Parliament (1992)

TEACHING MATERIAL - CASE STUDIES

"DRAGONFLY: Developing a proposal for an uninhabited aerial vehicle (UAV)": INSEAD case study developed under the supervision of C.H. Loch and A. De Meyer, recently awarded the 2004 ECCH award for the Production and Operations Management category

"GemStone Inc.: Measuring Research Performance": INSEAD case study developed jointly with C. H. Loch.

"United Beverages: New Product genius or one-hit-wonder?" Darden School of Business case study developed jointly with Raul O. Chao

"IASEB: Evaluating new IT services", COM case study jointly developed with Pablo Paredes, COM MBA '04

"Nextel™: The Delta TechOps – 3M Co-development Project," COM case study developed with S. Erat

"Auto-diagnosis" COM case study developed with N. Oraipoulos and A. Tischelaar

"Saturn VTi: the Continuous Variable Transmission Project," COM case study developed jointly with B. Jacobs and I. Bellos

"Beverage Dispensing for the 21st Century: a Brainstorming Exercise," COM in-class exercise jointly developed with J. Hutchison-Krupat

"The collaborative project simulation," COM in-class exercise jointly developed with J. Hutchison-Krupat

"Innovation at Microsoft: Clouds in the Horizon," Darden School of Business case study, developed jointly with R. O. Chao

TEACHING MATERIAL – COURSES

Management of Technology (MGT 8855). Research Seminar only for Ph.D. students. Taught in Fall 2002, Spring 2005, Spring 2008. Covers basic and state-of-the-art research in the management of technology area; key topics: management of technology innovations, technology adoption decisions, project management, portfolio selection, concurrent engineering, prototyping economics, supply chain management (SCM) and new product development (NPD) interfaces (evaluation: 5.0/5.0, 5.0/5.0, 5.0/5.0)

Collaborative Product Development (MGT 6326). MBA-level course; Taught in Spring 2003 – 2009. Also taught in an evening MBA version in the Summer of 2009. Covers management decisions and key problems during the process of developing a new product; key topics: project management, portfolio selection, prototyping economics, customer need

identification, ramp-up process management, management of development teams
(evaluations: 4.8, 4.2, 4.7, 5, 4.7, 4.9, 4.3 out of 5 for regular and 4.9/5 for evening)

Operations Management (MGT 3501). Core undergraduate course; taught in Spring 2003. Covers basic areas of Production and Operations Management; key topics: process analysis, inventory control, forecasting, capacity management, MRP, Services management, Operations Strategy (evaluation: 4.9 out of 5.0)

Management of Technology (MOT/MGT 6772). MBA/MS core course for Management of Technology (MOT) certificate – a special certificate awarded to engineering Georgia Tech masters' students with interests in MOT. Taught in Spring 2004; key topics: innovation dynamics, the firm innovation process, technology strategy, performance measurement in technological choices (evaluation: 4.2, 4.7, 4.7 out of 5)

Managing Product, Service and Technology Development (MGT 3744 previously MGT 4803). Undergraduate-level course; Taught in Spring 2004-2009. Covers management decisions and key problems during the process of developing a new product; key topics: project management, portfolio selection, prototyping economics, customer need identification, ramp-up process management, management of development teams (evaluation: 4.8, 4.4, 4.6, 4.5, 4.9 out of 5)

SERVICE

a. College of Management service

2002, 2003: Member of Ph.D. Committee

2004: Member of Undergraduate Committee

2005, 2006, 2007, 2008, 2009: Member of Teaching Effectiveness Committee

2008, 2009: Member of Executive Education Committee

b. Student advising

S. Erat (College of Management): Dissertation Co-chair (now at Rady School of Management at UCSD)

R. O. Chao (College of Management): Dissertation Co-chair (now at Darden School of Business at University of Virginia)

Gulru Ozkan (College of Management): member of the dissertation committee (now at Clemson University)

N. Oraiopoulos (College of Management): Dissertation Co-chair (now at the Judge School of Business at Cambridge University, UK)

J. Hutchison-Krupat (College of Management): 1st, and 2nd year paper advisor

V. Agrawal (College of Management): 2nd year paper co-advisor

H. Verheij (College of Architecture): member of dissertation committee

N. Pratikakis (School of Chemical & Biomolecular Engineering): member of dissertation committee

D. Young (School of Aerospace Engineering): member of the dissertation committee

S. Briceno (School of Aerospace Engineering): member of the dissertation committee

Y. Choi (College of Architecture): member of the dissertation committee

c. Editorial

Associate Editor *Management Science*: 2006-2008 (R&D and Product Development)

Associate Editor *Management Science*: 2009-present (Entrepreneurship and Innovation)

Senior Editor *POM*: 2007-present (Management of Technology)

Senior Editor *POM*: 2008 –present (New Product Development, R&D and Project Management)

Editorial Review Board: *Decision Sciences*.

Ad-hoc reviewer for *Operations Research, Management Science, Manufacturing & Service Operations Management, Production and Operations Management, Decision Sciences, European Journal of Operational Research, Omega, IEEE Transactions on Robotics and Automation*. He is a member of INFORMS, MSOM, and POMS.

PERSONAL

- Citizenship: Greek citizen.
- Visa status: Permanent Resident (“green card”).
- Family status: Married to Stavroula (Roula) Kyliantirea, senior market analyst; father of Vivian Kavadia.
- Languages: Greek, English (fluent), French (Very Good), German (moderate).
- Interests: Political Science and Diplomacy, Non-fiction and Light Fiction Literature, Soccer, and Music (especially ethnic).