

**Fouad
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**Professor,
Department
Operation
Management**

Contact

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Education

- International Teacher Program (ITP), Manchester Business School, England, 2003
- Ph.D., management science, ESSEC Business School, France, 2001
- Doctorat, sciences de gestion, Université Paris X Nanterre, France, 1996
- DEA (major de promotion), sciences de gestion, ESSEC-HEC-Université Paris X Nanterre, France, 1991
- DEA, dynamique des systèmes productifs et économie mondiale, Université Paris X Nanterre, France, 1989
- Maîtrise, économie de l'entreprise, Université Paris X Nanterre, France, 1988

Research Areas

- Supply chain management
- Operations strategy
- Cooperation
- Pollution control
- Optimal control and differential games applications

On-going Projects

- A behavioral dynamic game of partnership (submitted)
- An empirical investigation on supply chain implementation effectiveness, with P. de Giovanni
- Exhaustible vs renewable environmental absorption capacity, with D. Grass
- Dynamic onformance and design quality in a supply chain: An assessment of contracts' coordination power, with K. Kogan (submitted)
- A dynamic game of competing, decentralized and interdependent supply chains, with S. Jørgensen and F. Pasin (submitted)
- The impact of partial information sharing in a two-level supply chain, with M. Schnaiderman (submitted)
- Technology, capacity and marketing strategy over the life cycle of a new product in a dynamic duopoly, with B. Kim, C. Park and S. Park (submitted)
- A dynamic game of pollution control and environmental absorption capacity management, with M. Schnaiderman
- The optimal life-long career path of a professor, with K. Kogan and R. Vranceanu (submitted)
- Wholesale price and revenue-sharing contracts in a one manufacturer-one retailer dynamic supply chain, with S. Jørgensen and G. Erickson
- Corporate governance requirement of trust, with A. Naciri
- Optimal academic career path over finite horizon, with K. Kogan and R. Vranceanu
- Cooperation, attachment and forgiveness
- A dynamic game of supply chains' competition, with P. de Giovanni

Publications

Academic Publications

Books

Models and Methods in Economics and Management Science - Essays in Honor of Charles S. Tapiero. (with K. Kogan). New York (USA) : Springer, 2013

Dynamique industrielle et cycle de vie des produits. Rabat (Maroc) : Marif El Jadida, 1994

Articles

"Pollution accumulation and abatement policies in two supply chains under vertical and horizontal competition" (F. El Ouardighi, J. Sim, B. Kim), *OMEGA*, Issue Forthcoming

"Economic and environmental impact of vertical and horizontal competition and integration" (J. Sim, F. El Ouardighi, B. Kim), *Naval Research Logistics*, Issue DOI: 10.1002/NAV.21832, Forthcoming

"Autonomous and induced production learning under price and quality competition" (K. Kogan, F. El Ouardighi), *Applied Mathematical Modelling*

"Supplier behavior, conventional supply chain contracts and the quality-efficiency tradeoff" (F. El Ouardighi, M. Schnaiderman), *Journal of the Operational Research Society*, Issue Forthcoming

"Accelerating the diffusion of a new product through marketing-operations interface" (F. El Ouardighi, G. Feichtinger, G. Fruchter), *Annals of Operations Research*, May 2018, Vol. 264, Issue 12, p. 435-458

"Commitment-based equilibrium environmental strategies under time-dependent environmental absorption efficiency" (F. El Ouardighi, K. Kogan, G. Gnecco, M. Sanguinetti), *Group Decision and Negotiation*, Apr 2018, Vol. 27, Issue 2, p. 235-249

"Transboundary pollution control and environmental absorption efficiency management" (F. El Ouardighi, K. Kogan, G. Gnecco, M. Sanguinetti,), *Annals of Operations Research*, Issue Forthcoming

"Production with Learning and Forgetting in a Competitive Environment" (F. El Ouardighi, K. Kogan), *International journal of production Economics*, Apr 2017, Vol. 189, Issue July 2017, p. 52-62

"Contracts and information structure in a supply chain with operations and marketing interaction" (F. El Ouardighi, G. Erickson, D. Grass, S. Jørgensen,), *International Game Theory Review*, Dec 2016, Vol. 18, Issue 3, p. 1-36

"Advertising and quality-dependent word of mouth in a contagion sales model" (F. El Ouardighi, G. Feichtinger, D. Grass, R. Hartl, P. Kort), *Journal of Optimization Theory and Applications*, Jul 2016, Vol. 170, Issue 1, p. 323-342

"Autonomous and advertising-dependent word of mouth under costly dynamic pricing" (F. El Ouardighi, G. Feichtinger, D. Grass, R. Hartl, P. Kort), *European Journal of Operational Research*, Jun 2016, Vol. 251, Issue 3, p. 860-872

"Learning by doing with spillovers: Strategic complementarity versus strategic substitutability" (K. Kogan, F. El Ouardighi, T. Chernonog),

Automatica, May 2016, Vol. 67, p. 282-294

"Self-regenerating environmental absorption efficiency and the Soy lent Green scenario" (F. El Ouardighi, H. Benchekroun, D. Grass), *Annals of Operations Research*, Mar 2016, Vol. 238, Issue 1, p. 179-198

"Optimal career strategies and brain drain in academia" (A. Seidl, S. Wrzaczek, F. El Ouardighi, G. Feichtinger), *Journal of Optimization Theory and Applications*, Issue 1

"Pollution accumulation and abatement policy in a supply chain " (F. El Ouardighi, J. Sim, B. Kim), *European Journal of Operational Research*, Nov 2015, Vol. 248, Issue 3, p. 982-996

"Team production with punishment option: Insights from a real-effort experiment" (R. Vranceanu, F. El Ouardighi, D. Lebart), *Managerial and Decision Economics* , Aug 2015, Vol. 36, Issue 6, p. 408-420

"Production capacity buildup and double marginalization mitigation in a dynamic supply chain" (F. El Ouardighi, G. Erickson), *Journal of the Operational Research Society*, Oct 2014, Vol. 66, Issue 1, p. 1281-1296

"Controlling pollution and environmental absorption capacity" (F. El Ouardighi, H. Benchekroun, D. Grass), *Annals of Operations Research*, Sep 2014, Vol. 220, Issue 1, p. 111-133

"Supply quality management with optimal wholesale price and revenue sharing contracts: A two stage game approach" (F. El Ouardighi), *International Journal of Production Economics*, Jul 2014, Vol. 156, Issue 1, p. 260-268

"The impact of partial information sharing in a two-echelon supply chain" (M. Shniderman, F. El Ouardighi), *Operations Research Letters*, May 2014, Vol. 42, Issue 3, p. 234-237

"Research and Development with Stock-Dependent Spillovers and Price Competition in a Duopoly" (F. El Ouardighi, M. Schnaiderman, F. Pasin), *Journal of Optimization Theory and Applications*, May 2014, Vol. 161, Issue 2, p. 626-647

"Dynamic conformance and design quality in a supply chain: An assessment of contracts' coordinating power" (F. El Ouardighi, K. Kogan), *Annals of Operations Research*, Dec 2013, Vol. 211, Issue 1, p. 137-166

"Publish or teach? Analysis of the professor's Optimal career path" (F. El Ouardighi, K. Kogan, R. Vranceanu), *Journal of Economic Dynamics and Control*, Oct 2013, Vol. 37, Issue 10, p. 1995-2009

"Research and Development with Stock-Dependent Spillovers and Price Competition in a Duopoly" (F. El Ouardighi, F. Pasin, M. Shnaiderman), *Journal of Optimization Theory & Applications*, Sep 2013

"Dynamics of technology and price in a duopoly market" (B. Kim, F. El Ouardighi, S. Park), *Applied Economic Letters*, Oct 2012, Vol. 19, Issue 11, p. 1017-1022

"A dynamic game with monopolist manufacturer and price-competing duopolist retailers" (F. El Ouardighi, S. Jørgensen, F. Pasin), *OR Spectrum*, Jul 2012, Vol. 35, Issue 4, p. 1059-1084

"Supply quality management with wholesale price and revenue-sharing contract under horizontal competition" (F. El Ouardighi, B. Kim), *European Journal of Operational Research*, Oct 2010, Vol. 206, Issue 2, p. 329-340

"A dynamic game of operations and marketing management in a supply chain " (F. El Ouardighi, S. Jørgensen, F. Pasin), *International Game Theory Review*, Dec 2008, Vol. 10, Issue 4, p. 373-397

"Le supply chain management : entre indépendance organisationnelle et centralisation" (F. El Ouardighi), *Revue Française de Gestion*, Sep 2008, Vol. 34, Issue 186, p. 1-10

"L'expérience Française du Supply Chain Management" (F. El Ouardighi, P. De Giovanni, JC. Tarondeau), *Revue Française de Gestion*, Sep 2008, Vol. 34, Issue 186, p. 11-39

"Contrat de prix de transfert et contrat à partage de revenu dans une supply chain" (F. El Ouardighi, S. Jørgensen, F. Pasin), *Revue Française de Gestion*, Sep 2008, Vol. 34, Issue 186, p. 59-77

"Quality improvement and goodwill accumulation in a dynamic duopoly" (F. El Ouardighi, F. Pasin), *European Journal of Operational Research*, Dec 2006, Vol. 175, Issue 2, p. 1021-1032

"Supplier-manufacturer collaboration on new product development" (B. Kim, F. El Ouardighi), *Annals of Dynamic Games, Birkhauser*, Jan 2006

"The Dynamics of Cooperation" (F. El Ouardighi), *International Game Theory Review*, Jan 2002, Vol. 4, Issue 1, p. 1-16

"Quality and the Diffusion of Innovations" (F. El Ouardighi, C. Tapiero), *European Journal of Operational Research*, Jan 1998, Vol. 106, Issue 1, p. 31-38

"Modèles de diffusion en marketing" (F. El Ouardighi, C. Tapiero), *Recherche et Applications en Marketing*, Jan 1997, Vol. 12, Issue 4, p. 15-40

"Qualité et diffusion des produits" (F. El Ouardighi, C. Tapiero), *Recherche et Applications en Marketing*, Jan 1996, Vol. 11, Issue 4, p. 35-51

Book Chapters

Production control in a competitive environment with incomplete information. In: *New Trends in Emerging Complex Real Life Problems* (with K. Kogan). Switzerland (Switzerland) : Springer, Springer. 2018, p. 1-9

Optimal growth with polluting waste and recycling. In: *Dynamic Perspectives on Managerial Decision Making: Essays in Honor of Richard F. Hartl* (with R. Boucekkine). New York (USA) : Springer, 2016, p. 109-126

Attachment and Forgiveness in a Behavioural, Non-Cooperative Dynamic Game. In: *Models and Methods in Economics and Management Science - Essays in Honor of Charles S. Tapiero.* New York (USA) : Springer, 2013, p. 1-26

Supplier Manufacturer Collaboration on New Product Development. In: *Advances in Dynamic Game Theory* (with B. Kim). () : Steffen Jorgensen, marc Quincampoix, Thomas L. Vincent, Birkhauser, New York. 2007, p. 527-546

Dynamique des ventes et stratégies publicitaires concurrentielles. In: *Savoir gérer. Mélanges en l'honneur de Jean-Claude Tarondeau.* Paris (France) : Vuibert, LE MOAL P., BOURGEON L.. 2003

Working Papers

"Optimal growth with polluting wastes and recycling" (with R. Boucekkine). GREQAM, 13 Mar 15.

"Supply quality management and horizontal competition " (with B. Kim). ESSEC Business School, Apr 08.

"Cooperation, Trust and Players' Profile" ESSEC Business School, Oct 07.

"Quality Improvement and a Goodwill Accumulation in a Dynamic Duopoly" (F. Pasin). Essec Research Center, DR-02018 Oct 02.

"Advertising and Quality Decisions over Time" (F. Pasin). Essec Research Center, DR-02014 Jul 02.

"The Dynamics of Optimal Cooperation" (F. Gannon). Essec Research Center, DR-01003 Feb 01.

"La théorie statistique de la décision. I" (F. El Ouardighi). Essec Research Center, DR-99035 Dec 99.

"La théorie statistique de la décision, I." (F. El Ouardighi). Essec Research Center, DR-99070 Jan 99.

"Optimal advertising and quality under imperfect information" (C. Tapiero). Essec Research Center, DR-97035 Jan 97.

"Quality, Advertising, Price and the Diffusion of Innovations" (F. El Ouardighi). Essec Research Center, DR-96072 Dec 96.

Other Publications

Press Articles

"Comment gérer le secteur halieutique ?". *Vie Economique (La)*, 24 Sep 1999

Book Reviews

" La Mondialisation, Stade Suprême du Capitalisme ?". (W. Andreff) *Revue Française de Gestion*, 2013, vol. Forthcoming, Issue 1, p. 1-2

"Supply Chain Games: Operations Management and Risk Valuation". (K. Kogan, C. Tapiero) *International Game Theory Review*, 2009, vol. 11, Issue 1, p. 117-119

Teaching

Teaching at ESSEC

Logistics and Supply Chain Management

Projet Management

Quality Management and Control

Supply Chain Management

Optimal Control Theory

Continuous-Time Dynamic Games

Cases

The Poseidon Adventure (F. El Ouardighi).Cranfield (UK) : ECCH, 2008 (Cases).

Other Activities

Awards and Distinctions

Major de promotion, DEA es-sciences de gestion, HEC-ESSEC-Université Paris X Nanterre, France, 1991

Excellence scholarship from the French Government, 1991-1994

Scientific Activities

Conference Presentations

IFORS Triennial Conference (session chair), Melbourne, Australia, July 2011; Optimization Days Conference, HEC-Montreal, Montreal, Canada, May 2011; INFORMS Annual Meeting (session chair), Austin, Texas, USA, November 2010; INFORMS MSOM Annual Conference, Tel Aviv, Israël, June 2010; XIIIth International Symposium of the International Society of Dynamic Games, Banff, Canada, June 2010; XIth Viennese Workshop on Deterministic Optimal Control, Non Linear Dynamics and Differential Games, Amsterdam, Netherlands, May 2010; Optimization Days Conference, HEC-Montreal, Montreal, Canada, May 2010; INFORMS Annual Meeting, San Diego, California, USA, October 2009; VIIth International Workshop of the International Society of Dynamic Games, Djerba, Tunisia, July 2009; IInd International Workshop on Dynamic Games in Management Science, Valladolid, Espana, June 2009; CORS-INFORMS Conference, Toronto, Canada, June 2009; Optimization Days Conference, HEC-Montreal, Montreal, Canada, May 2009; Production and Operations Management Conference, Orlando, Florida, USA, Mai 2009; Workshop on the New Challenges to the Economics of Business Schools and Universities, EIASM/ESSEC, Cergy, France, December 2008; INFORMS Annual Meeting, Washington D.C., USA, October 2008; American Accounting Association Annual Meeting, Anaheim, California, USA, August 2008; IFORS Triennial Conference (session chair), Sandton, Johannesburg, South Africa, July 2008; Xth Viennese Workshop on Deterministic Optimal Control, Non Linear Dynamics and Differential Games in Honor of Pr Gustav Feichtinger, Vienna Technical University, Vienna, Austria, May 2008; Production and Operations Management Conference, La Jolla, San Diego, California, May 2008; International Workshop on Dynamic Game Theory and Applications (session chair), HEC-Montreal, Montreal, Canada, May 2008; INFORMS Annual Meeting (session chair), Seattle, Washington, USA, November 2007; VIth International Workshop of the International Society of Dynamic Games (session chair), Rabat, Morocco, September 2007; INFORMS International Meeting, San Juan, Puerto Rico, July 2007; IXth Viennese Workshop on Deterministic Optimal Control, Non Linear Dynamics and Dynamic Games, HEC-Montreal, Montreal, Canada, May 2007; Optimization Days Conference, HEC-Montreal, Montreal, Canada, May 2007; PITTSBURGH INFORMS annual meeting, Pittsburgh, Pennsylvania, USA, November 2006; XIIth International symposium on dynamic games and applications, Sophia-Antipolis, France, July 2006; International workshop on dynamic

optimization in honor of Pr Suresh P. Sethi, Dallas, Texas, USA, May 2006; Optimization days conference (session chair), HEC-Montreal, Montreal, Canada, May 2006; SAN FRANCISCO INFORMS annual meeting, San Francisco, California, USA, November 2005; Viennese workshop on dynamic games, Vienna, Austria, October 2005; IFORS Triennial conference (session chair), Honolulu, Hawaiï, USA, July 2005; Optimization days conference, HEC-Montreal, Montreal, Canada, May 2005; XIth International symposium on dynamic games and applications (session chair), Tucson, Arizona, USA, December 2004; EURO XX, XXth European conference on operational research (session chair), Rhodos, Greece, July 2004; Optimization days conference (session chair), HEC-Montreal, Montreal, Canada, May 2004; Teaching and Learning Conference (best paper award), Orlando, Florida, USA, January 2004; ATLANTA INFORMS annual meeting (session chair), Atlanta, Georgia, USA, October 2003; ISTANBUL EURO/INFORMS joint conference, Istanbul, Turkey, July 2003; VIIIth Viennese workshop on optimal control, non linear dynamics and differential games (session chair), Vienna, Austria, May 2003; Optimization days conference, HEC-Montreal, Montreal, Canada, May 2003; SAN JOSE INFORMS annual meeting, San Jose, California, USA, November 2002; International workshop on optimal control and dynamic games in honor of Pr Steffen Jørgensen, Tunis, Tunisia, September 2002; Xth International symposium on dynamic games and applications, St-Petersburg, Russia, July 2002; Optimization days conference (session chair), HEC-Montreal, Montreal, Canada, May 2002; HEC-ESSEC-INSEAD marketing seminar, INSEAD, Fontainebleau, France, March 2002; MIAMI INFORMS annual meeting, Miami, Florida, USA, November 2001

- HAWAII; INFORMS annual meeting (session chair), Maui, Hawaiï, USA, June 2001; IXth international symposium on dynamic games and applications, Adelaide, Australia, December 2000; SEOUL INFORMS/KORMS joint conference, Seoul, South Korea, June 2000; VIIth Viennese workshop on optimal control, non linear dynamics and differential games, Vienna, Austria, May 2000; HEC-ESSEC-INSEAD marketing seminar, INSEAD, Fontainebleau, France, October 1999; EURO XVI, XVIth European conference on operational research, Brussels, Belgium, July 1998; HEC-ESSEC-INSEAD marketing seminar, HEC, Jouy-En-Josas, France, May 1994; IInd Conference of International Association of Strategic Management (AIMS), Jouy-En-Josas, France, Octobre 1992

Affiliations and Academic Responsibilities

Member of:

- Institute for Operations Research and the Management Science (INFORMS)
- International Society of Dynamic Games (ISDG)
- Production and Operations Management Society (POMS)
- European Society for Operations Research (EURO)
- Ad hoc reviewer for European Journal of Operational Research (1998-), Production Planning and Control (2002-), International Game Theory Review (2002-), Revue Française de Gestion (2004-), Annals of Dynamic Games (2005-), Optimal Control Applications and Methods (2007-), RAIRO-RO (2008-), Journal of Economic Dynamics and Control (2008-), Management Science (2009-), Naval Research Logistics (2010-), Journal of Optimization Theory and Applications (2010-), International Journal of Production Economics (2010-), Annals of Operations Research (2010-), Dynamic Games and Applications (2010-), Computers and Operations Research (2010-), Central European Journal of Operational Research (2010-)

Consulting and Other Activities

- Expert for the Rhône-Alpes Regional Committee, France, 2000-2004
- Consultant and educator for French and foreign organizations, 1998-
- Consultant for the Ministry of fisheries and the merchant navy of the Kingdom of Morocco, Rabat, Morocco, 1996-1998

Professional Experience

Professor (2009-); Coordinator of the Ph.D. program track in Operations Management and Decision Sciences (2007-2010); Associate professor (2002-2009); Designer and academic director of the Specialized Master of Technological Projects Management (2003-2009); Chairperson of the Operations Management Department (2001-2009); Academic director of the Specialized Master of Logistics and Supply Chain Management (2000-2009); Academic director of the Specialized Master of Public Services Management (2006-2007); Designer of the Ph.D. program track in Operations Management and Decision Sciences (2004-2006); Academic director of the Executive Specialized Programs of Logistics and Production (1999-2001); Academic director of the In-Company Projects Program (1999-2000); Assistant professor, Logistics, Production and Service department, ESSEC Business School (1998-2002); Assistant professor, Decision and Information Systems Department, Audencia-Ecole Supérieure de Commerce de Nantes (1997-1998); Visiting professor, Logistics and Production Department, ESSEC Business School (1996-1997); Lecturer, Faculty of Management, Paris X Nanterre University (1994-1998); Lecturer, Management Department, Ecole des Mines de Nantes (1994); Scholarship holder/assistant, Management Faculty, Paris X Nanterre University (1992-1994); Research assistant, Strategy and Management Department, ESSEC Business School (1991-1992)