Jan Albert Van Mieghem

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Married to Shannon B. Cahill; father of Maximiliaan, Katharine, Marcus, and Karolien.
Citizenship: Belgium. Permanent US resident.

EDUCATION

Ph.D., Graduate School of Business, Stanford University, California.	1995
M.S., Electrical Engineering, Stanford University, California.	1991
ir. (Summa cum Laude), Applied Sciences, Katholieke Universiteit Leuven, Belgium.	1984-1989

ACADEMIC EMPLOYMENT

At Northwestern University's Kellogg School of Management:

Harold L. Stuart Professor of Managerial Economics	2001- today
Professor	2000- today
Professor (by courtesy), IEMS, School of Engineering and Applied Science	2007- today
Senior Associate Dean: Curriculum and Teaching	2009-2010
Chairman of the department of Managerial Economics and Decision Sciences (MEDS)	2006-2009
Associate Professor	1997-2000
Assistant Professor	1995- 1997
Teaching Assistant *Quantum and semiconductor Physics*, Stanford University.	Part-time 9/1990-12/1990

Visiting Professor at KU Leuven, Belgium (2005); Chulalongkorn University, Thailand (2005); York University, Canada (2004); WHU, Germany (since 1998).

INDUSTRY EMPLOYMENT

Associate, McKinsey & Company, Brussels, Belgium.	summer 1995
Manufacturing Staff Analyst, Seagate Technology, Scotts Valley, California.	summer 1994
Design Engineer, Canon Research Center, Palo Alto, California.	1991-1992
Strategic Planner of Color Printers, Agfa NV, Antwerp, Belgium.	summer 1990

RESEARCH AGENDA

My research studies manufacturing, service and supply chain operations from a strategic and tactical perspective:

- Operations strategy involves structuring resources and processes such that their resulting capabilities maximize value. This includes deciding on capacity investment; network design, appropriate type and

amount of flexibility, risk mitigation and operational hedging; incentives, pricing, contracting, and coordination in supply chains.

- Operations management involves managing execution (dynamic control) and performance evaluation of processing networks.

BOOKS

1. *Managing Business Process Flows: Principles of Operations Management*. Prentice Hall, **1999**, second edition **2006,** third edition **2012.** With R. Anupindi, S. Chopra, S. Deshmukh and E. Zemel. This MBA operations textbook is used at various universities around the world.
2. *Operations Strategy: Principles and Practice.* Dynamic Ideas. First edition, **2008**.

INVITED PUBLICATIONS

1. Risk Management and Operational Hedging: An Overview. *Handbook of Integrated Risk Management in Global Supply Chains*, edited by Panos Kouvelis, Lingxiu Dong, Onur Boyabatli, and Rong Li. Operations Research and Management Science series by John Wiley & Sons, Inc., 13-49, **2012**.
2. Operations Management and Strategy. To appear in *The Palgrave Encyclopedia of Strategic Management*, **2013**, edited by David Teece and Mie Augier.
3. 3Rs of OM: Research, Relevance, and Rewards. MSOM Fellow Inaugural Lecture. To appear in *Manufacturing & Service Operations Management.*

PEER-REVIEWED JOURNAL PUBLICATIONS

1. Brownian Models of Closed Queuing Networks: Explicit Solutions for Balanced 3-station Systems, *Annals of Applied Probability*, **4**(2) 448-477, **1994**. With E. Schwerer.
2. Straight Line Extraction using Iterative Total Least Squares Methods, *J. of Visual Communication and Image Representation*, **6**(1) 59-68, **1995**. With H. I. Avi-Itzhak and R. D. Melen. (An earlier version appeared in *SPIE Proceedings*, **1661**, 92-97, Feb. 1992.)
3. Multiple Subclass Pattern Recognition: A Maximin Correlation Approach, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **17**(4) 418-431, **1995**. With H. I. Avi-Itzhak and L. Rub.
4. Dynamic Scheduling with Convex Delay Costs: The Generalized $c\,\mu$ Rule, *Annals of Applied Probability*, **5**(3) 808-833, **1995**.
5. Multi-Factor Dynamic Investment under Uncertainty, *Journal of Economic Theory*, **75**(8) 345-387, **1997.** With J. C. Eberly.
6. Dynamic Control of Brownian Networks: State Space Collapse and Equivalent Workload Formulations, *Annals of Applied Probability*, **7**(3) 747-771, **1997**. With J.M. Harrison.
7. Investment Strategies for Flexible Resources, *Management Science*, **44**(8) 1071-1078, **1998**.
8. Multi-Resource Investment Strategies: Operational Hedging under Demand Uncertainty, *European Journal of Operational Research* **113**(1) 17-29, **1999**. With J. M. Harrison.
9. Coordinating Investment, Production and Subcontracting, *Management Science*, **45**(7) 954-971, **1999**.
10. Price versus Production Postponement: Capacity and Competition, *Management Science*, **45**(12) 1631-1649, **1999**. With M. Dada.
11. Which e-business is right for your supply chain? *Supply Chain Management Review*, 32-40, July/August, **2000**. With S. Chopra.

12. Price and Service Discrimination in Queuing Systems: Incentive-Compatibility of Gcμ Scheduling. *Management Science*, **46**(9)1249-1267, **2000**.
13. Price-coupled Scheduling for Differentiated Services: Gcμ vs. GPS. With P. Van Mieghem. *Int'l Journal of Communication Systems,* **15**(5)429-452, June **2002**.
14. Newsvendor Networks: Inventory Management and Capacity Investment with discretionary activities. With Nils Rudi. *Manufacturing & Service Operations Management*, **4**(4)313-335, Fall **2002**.
15. Due-Date Scheduling: Asymptotic Optimality of Generalized Longest Queue and Generalized Largest Delay Rules. *Operations Research*, **51**(1)113-122, Jan-Feb **2003**.
16. Capacity Management, Investment and Hedging: Review and Recent Directions. Invited paper by *Manufacturing & Service Operations Management*, **5**(4)269-302, Fall **2003**.
17. Note: Commonality Strategies: Value Drivers and Equivalence with Flexible Capacity and Inventory Substitution. *Management Science*, **50**(3)419-424, March **2004**.
18. Strategically Seeking Service: How Competition Can Generate Poisson Arrivals. With Marty Lariviere. *Manufacturing & Service Operations Management,* **6**(1)23-40, Winter **2004**. This paper was awarded the 1st MSOM Best Paper Award in 2007. (Each year the journal selects one paper, published in one of the prior three volumes of M&SOM, as most deserving for its contribution to the theory and practice of operations management.)
19. Queueing Systems with Leadtime Constraints: A Fluid-Model Approach for Admission and Sequencing Control. With Costis Maglaras. *European Journal of Operational Research*, **167** p. 179-207, **2005**.
20. Seagate-Quantum: Encroachment Strategies. With Glenn Schmidt. *Informs Transactions on Education,* **5**(2), January **2005**.
21. Risk Mitigation in Newsvendor Networks: Resource Diversification, Flexibility, Sharing, and Hedging. *Management Science,* **53**(8)1269-1288, August **2007**.
22. Voting with your Pocket Book: A Stochastic Model of Consumer Boycotts. With Daniel Diermeier. *Mathematical and Computer Modeling,* **48** p. 1497-1509, **2008.**
23. Coordination and Turnout in Large Elections. With Daniel Diermeier. *Mathematical and Computer Modeling,* **48** p. 1478-1496, **2008.**
24. Multi-market Facility Network Design with Offshoring Applications. With Lauren Xiaoyuan Lu. *Manufacturing & Service Operations Management,* **11**(1)90-108, Winter **2009**. This paper won the second place in the 2007 Student Paper Competition sponsored by the College of Supply Chain Management of the Production and Operations Management Society (POMS).
25. The Value of Partial Resource Pooling: Should a service network be integrated or Product-focused? With Barış Ata. *Management Science,* **55**(1)115-131, January **2009**.
26. Incentives for Quality through Endogenous Routing. With Lauren Xiaoyuan Lu and Canan Savaskan. *Manufacturing & Service Operations Management,* **11**(2)254-273, Spring **2009**.
27. Global dual sourcing: Tailored Base Surge Allocation to Near and Offshore Production. With G. Allon. *Management Science*, **56**(1)110-124, January 2010. This paper is also featured in *Kellogg Insight*: Global Dual Sourcing Strategies: Should you source your carbon fiber bicycle from Mexico or China?
28. Operational Flexibility and Financial Hedging: Compliments or Substitutes? With Jiri Chod and Nils Rudi. *Management Science*, **56**(6)1030-1045, June **2010**.
29. The Mexico-China Sourcing Game: Teaching Global Dual Sourcing. With G. Allon. *INFORMS Transactions on Education*, **10**(3)105-112, May **2010**.

30. Optimal Flexibility Configurations in Newsvendor Networks: Going Beyond Chaining and Pairing. With A. Bassamboo and R. Randhawa. *Management Science*,**56**(8)1285-1303, August **2010**.
31. The Promise of Strategic Customer Behavior: On the Value of Click Tracking (Formerly: Are you Willing to Click? On the Value of Advance Information when selling to Strategic Customers) With Tingliang Huang. To appear in *POM* (11/3/**2011**; 2/22/**2012**) This paper is also featured in Kellogg Insight: From Web Visits to Firm Orders: Analyzing web visitor click data to streamline sales efforts.
32. Mix, Time, and Volume Flexibility: Valuation and Corporate Diversification. (Formerly: Valuing Flexibility as a Wait-and-Switch Option.) With Jiri Chod and Nils Rudi. 4/24/**2012.** To appear in *Review of Business and Economics*.
33. A Little Flexibility is All You Need: On the Asymptotic Value of Flexible Capacity in Parallel Queuing Systems. With Achal Bassamboo and Ramandeep S. Randhawa. 5/16/2012. To appear in *Operations Research*.

MANUSCRIPTS UNDER REVIEW

34. Clickstream Data and Inventory Management: Model and Empirical Analysis? With T. Huang. 1/30/**2012**; 6/12/2012.
35. Global Dual Sourcing and Order Smoothing. With Robert Boute. Oct 19, **2011**.

WORK IN PROGRESS

36. Empirical Valuation of Including Retailer Inventory Information in Manufacturer Forecasting. With R. Cui, G. Allon and A. Bassamboo.
37. Dynamic Pre-order Management of Perishable Products.

TEACHING: COURSES AND CASE MATERIALS

Degree courses taught:
1. *Operations Management* (MBA & executives)
2. *Operations Strategy* (MBA elective)
3. *Operations Economics* (Ph.D. class)
4. *Foundations of Operations Management* (Ph.D. class)

Various non-degree executive courses, including *The Science of Lean-Six Sigma Operations*, of which I am the academic director.

Cases written:

1. A Worldwide Capacity Planning System: Architecture and Example. Teaching document. Stanford **1994**.
2. Computer System Design and Development at MasPar. Case on product development. Stanford **1994**.
3. Harley-Davidson Motor Company. Case on capacity expansion. Kellogg **1998**.
4. Seagate Technologies: Operational Hedging. Case on capacity hedging strategies. Kellogg **1998**.
5. NextPart.com. Case on Internet startup in operations, supplier and distribution management. Kellogg **2000**.
6. Seagate-Quantum: Encroachment Strategies. Case on product introduction. Kellogg-McDonough **2000.**
7. Pizza Pazza. Case on bottlenecks and responsiveness. Kellogg **2001**.
8. Palu Gear. Case on inventory management and centralization. Kellogg **2001**.
9. Peapod.com. Case on operational strategies in grocery industry. Kellogg **2001.**

10. Bose 301SE: coordinating sourcing via contracts. Case on contracting in the supply chain. Kellogg **2001**.
11. Hammoud Hosptial. Case on service operations. Kellogg **2003.**
12. The Swiss Watch Industry. Case on operations strategy. Kellogg **2004**.
13. Memphis Auto Auction. Case on quality incentives. Kellogg **2004**.
14. My book *Operations Strategy: Principles and Practice* contains 8 new mini-cases. **2008.**
15. Mexico-China: Global Dual Sourcing Supply Chain game. With Gad Allon. **2009**.
16. Lean Transformation at Global Connect. With Gad Allon. **2010**.
17. HP: Variety Management. With Gad Allon. **2010**.
18. Mercon Coffee Case. With Achal Bassamboo. **2010**.
19. Global Capacity Strategy: Analytical Capstone Case. With Gad Allon. **2012**

OUTSIDE ACTIVITIES

Following Northwestern University's Conflict of Interest and Conflict of Commitment policies, here is a list of organizations (external to the University) that I have worked with during the last three years. In my opinion, none of these activities have created a conflict with my duties at the University. To the contrary, they have strengthened my professorial work:

McKinsey & Company (on operations management and strategy)	2003- today
Moen (on global strategic sourcing)	2012
Career Builder (on lean human resource management)	2008- 2009

Engagements prior to 2009 include *Harley-Davidson* (on flexible manufacturing investment); *Komag* (on operations management); and *The Joint Commission on Accreditation of Healthcare Organizations*.

SERVICE TO THE PROFESSION

Editorial Positions: 1. Area-Editor of *Operations Research,* 1/1/2002-1/1/2006. (Associate editor since 1999)

2. Senior editor of *Manufacturing and Service Operations*, 2000-2002. Nominated for Editor-in-Chief (2005, 2008). Associate editor, 1/1/2012-current.

3. Associate editor of *Management Science*, 1997-2003.

4. Member of the editorial board of the *Review of Business and Economics*, since 2008.

Invited Speaker: 2012: inaugural lecture at MSOM, Colombia University

2011: Utah, Boston College, University of Leuven

2010: keynote invitation at CORE UCL, UC Berkeley, INFORMS

2009: Utah, USC, MIT MSOM, MIT, Harvard, INFORMS

2008: UC Berkeley, Wharton, Columbia, Deloitte (Supply Chain Summit), U of Chicago, London Business School, KU Leuven, McGill Montreal, MSOM June, INFORMS Oct,

2007: MIT, WHU, UNC, Stanford,

2006: Duke, CMU, NYU, UT Austin, UT Dallas, Univ. of North Carolina,

2005: UCL (CORE), Insead (Memorial Lecture for Xavier de Groote), KU Leuven.

Earlier at various universities, including CMU, Columbia, Insead, Leuven, MIT, Michigan, Stanford, UCLA, Washington Univ., Wharton. At all recent INFORMS national meetings.

Committees: Informs Lanchester Prize committee 2005 & 2006 and 2011 & 2012 (selects the recipient of the prestigious Lanchester prize).

M&SOM Best Student Paper Competition (co-chair);

International MSOM-Informs Conference at Northwestern University (2005);

Utah Operations Winter Conference organizing committee (2006 - current);

External reviews: 2011: Decisions, Operations and Risk division of Columbia Business School, NY. Chairman.

Mgt Sc journal and editor three-annual review (2011);

2009: Invited to review the Dept of Information and Decision Sciences at University of Illinois at Chicago.

M&SOM journal and editor three-annual review (2008);

Membership: Member of *INFORMS*, M&SOM, *Stanford Integrated Manufacturing Association* and the *European Institute for Advanced Studies in Management (EIASM)*.

SERVICE TO THE SCHOOL AND UNIVERSITY

Committees: Academic Director of EMBA Program (2012-today)
Kellogg School of Management Executive Council (6 dept. chairs & 3 deans) (2006-2009);
Kellogg Curriculum Committee: Integrative MBA core course (2008- 2009);
Kellogg Information Systems Faculty Advisory Board (2008-2009);
Kellogg European Initiatives Committee (2007-2008);
Kellogg personnel committee (2005-2006);
Chairman and member of ad-hoc personnel and curriculum review committees (since 2000);
Kellogg operations bi-annual workshop (since 2002; 2004; 2006; 2008);
International MSOM-Informs Conference at Northwestern University (2005);
MBA curriculum review committee (2004);
Instructional computing committee (2004);
Member of EMP curriculum review committee (2003);
Co-designer of Operations Economics track in MES Ph.D. program (2003).
Recruiting (since 1996).

Seminars: **MBA**: Tech camp; CIM week, MEDS seminar, new faculty teaching workshop

Executive: *Lean SixSigma Operations (*academic director), *Flanders Business School* (academic director), *Executive Development Program, Global Supply Chain Program, Health care program, Product Innovation Program, Ernst & Young; Kraft; ICI; Young President's Organization , Factory Physics; Transportation Center.*

Faculty mentor: of assistant professors Li (2005), Ata (2003), Novak (1999) and Afeche (1997), and of visiting faculty Dada (1998).

Student advisor: of Northwestern University and joint Kellogg-WHU students:

PhD Advisor: principal advisor of

1. Ruomeng Cui (OM 3rd year)
2. Tingliang Huang (Kellogg OM PhD graduated 2011). Now Assistant Professor at University City of London.
3. Lauren Xiaoyuan Lu (MECS 2007). Now Assistant Professor at University of North Carolina.

PhD Theses: co-advisor and/or dissertation committee member of

4. Umut Aytekin (IEMS 2005)
5. Biying Shou (IEMS 2004).
6. Gilles Reinhardt (MECS 1998), "Coal Movement By Railroad." Assistant Professor, De Paul University
7. Jennifer Ryan (IEMS 1997), "Analysis of Inventory Models with Limited Demand Information." Assistant Professor, Purdue University.

Master Theses: supervisor of WHU EMBA students:

1. Process Flow Analysis and Optimization for a Medium Size Manufacturer of Power Transformers - An Operations Management Study. By Dr.-Ing. Mario Schenk, Aug 2006.
2. How to measure the efficiency in your two-tiered marketing channel. Study case: Hewlett-Packard EMEA Supplies Business. By Danijel Puco, Aug 2006.
3. Operational Efficiency in Asset Management. By Peter Richter, 2005.
4. Lear Corp.: supplying interior products to GM's Opel Leanfield. By Hubert Fisher, Dec. 2003.
5. Hammoud Hospital: Applying operations management analysis to improve the performance of the operating rooms. By Diana Hammoud, Sept 2003.
6. Amer Sports Europe: Re-designing the European Distribution Logistics for a Multi-Brand Consumer Goods Company. By Thomas Henkel, Dec 2002.
7. Managing customer-centric value networks. By Christoph Lieth, June 2002.
8. Bombardier Transportation Italy: Internal Material Supply in the Italian Railways Industry. By Karsten Drath, Dec 2001.
9. Analysis of Procurement using an acquisition card. By Jesus Lopez Marin, Dec 2001.
10. e-Supply Chain Management - The Impact of E -Commerce on Traditional Supply Chain Management. By Michael Wiedemann, Dec 2000.

Independent Studies/Integration Projects: supervisor of

1. THANKS supplier collaboration optimization between Nissan and ITW. By Kristin Jones, Dan Kamerling, Mark Porto, Avi Shertok and Jeff Zitomer. Spring 2011.
2. Measuring supplier flexibility for Harley Davidson. By Bruno Carriel, Sumanth Gargi, Alvin Leung, Alejandro Solis Yamuni, and Chetan Paydenkar. Spring 2009.
3. Sourcing strategy for ITW Paslode. By Ernest Chan, Craig Lan, Joel Mendel and Andre Ohnona. March 2008.
4. Integration of two ITW Food Equipment Group businesses. By Erik Conroy, Brandon L. Edlefsen, Shuchi Gupta, Pankaj Jaggi, Alex Riemer. March 2007.
5. Acquisition and Plant Integration at ITW Shakeproof. By Luis X. Aleman, Rachel A. Brecher, Carla C. Esteva, Matthew C Lippert, Lynn Valcarcel. March 2006.
6. Global Capacity Planning at Abbott International. By Jason Braun, Leo Castro, Lewis Lin, Scott Pitcock, Ulrich Seidel. April 2004.
7. Eastman Resins. By Chris Pratt, Katerina Athanasopoulos, Tomo Hosoda, Juhan Kim, Emily Sun. May 2003.
8. Sun Microsystems: supplier management. By Michael Goldstein,Doug Leadon, Jack Lee. April 2002.
9. Eaton Corporation: Product Profitability Assessment. By Robb Hoenick, Southard Jones, Hideaki Omura, Trey Pruitt . May 2001.

AWARDS, FELLOWSHIPS AND ADDITIONAL INFORMATION

Teaching Awards:

Best Teacher in the Kellogg-WHU Executive MBA program. Awarded by the 8th class, 2006.
Second-best Teacher in the Kellogg-WHU Executive MBA program. Awarded by the 5th class, 2003.

Chair's Core Course Teaching Award, Kellogg, Northwestern University, 2008, 2005; 2002, and 1999.
Sidney J. Levy Teaching Award, Kellogg, Northwestern University, 1997.

Professional Awards:

Distinguished MSOM Fellow, 2012, *"for his development of the generalized "c-mu" rule, and contributions to our understanding of the role of capacity and flexibility in networks.*"
1st MSOM Best Paper Award in 2007 for *Strategically Seeking Service: How Competition Can Generate Poisson Arrivals*. With Marty Lariviere.
Second place in the 2007 Student Paper Competition sponsored by the *College of Supply Chain Management of the Production and Operations Management Society (POMS)* for Multi-market Facility Network Design with Offshoring Applications. With Lauren Xiaoyuan Lu.
Nominated for Editor of *M&SOM* journal in 2005 (made last round) and 2008.
Operations Research Area Editor Service Recognition, 1/2002-12/2005.
Informs case competition finalist for *Seagate-Quantum: Encroachment Strategies.* With Glen Schmidt. 2004.
Operations Research Meritorious Service Award, 1997.

Fellowships/Grants:

Distinguished MSOM Fellow, 2012.
Future Professors in Manufacturing Fellowship, Stanford University, 1992-1995.
Jaedicke Merit Scholar Award, Graduate School of Business, Stanford University, 1992.
Fellow of *The Belgian American Educational Foundation,* Brussels, Belgium and New Haven, Connecticut, 1989.
Fellow of *The Francqui Foundation*, Brussels, Belgium, 1989.

Additional Info:

Languages: Dutch, English, French and some German.
Founder and composer of the classical ensemble *The Carulli Trio* and of the rock group *Tullamore Dew.*
I enjoy competitive cycling (cat 3), singing, skiing, culinary events and travelling.