

CURRICULUM VITAE

1

Dr. MUSTAFA KARAKUL

Associate Professor of Management Science
York University, School of Administrative Studies
4700 Keele St., Toronto, Ontario, M3J 1P3, CANADA
Tel: +1-416-7362100 Ext. 30117
mkarakul@yorku.ca

EDUCATION

Ph.D., Operations Management, Rotman School of Management, University of Toronto, 2004
M.Sc., B.Sc., Industrial Engineering, Bilkent University, Turkey, 1996

AREAS OF INTEREST

Operations Management, Revenue Management, Supply Chain Management, Production Inventory Control, Investment Decision Analysis, Dynamic Pricing, Dynamic Decision Making, Stochastic Dynamic Programming

PROFESSIONAL ORGANIZATIONS

Institute for Operations Research and the Management Sciences (INFORMS)
Canadian Operational Research Society (CORS)
International Federation of Operational Research Societies (IFORS)

EMPLOYMENT HISTORY

Academic

Associate Professor– Management Science, York University, 2008 - present
Assistant Professor – Management Science, York University, 2003 – 2008
Assistant Professor – Faculty of Graduate Studies, York University, 2006 – present
Area Coordinator – Management Science, York University, 2005-06
Sessional Instructor – Schulich School of Business, York University, 2005
Sessional Instructor – Rotman School of Management, University of Toronto, 2000-01

Consultations

George Brown College, Toronto, Ontario, Canada
Consultant – Statistical analysis of the annual key performance indicator survey
Ontario Hydro, Toronto, Ontario, Canada
Consultant – Developed a queuing model to manage the workforce and to reduce the response time of the emergency crews to *30 minutes from 1.5 hours*
Dishwasher Plant, ARCELIK A.S., Ankara, Turkey
Consultant – Reduced set-up times of stamping machines *from 2 hours to 35 minutes*

HONORS & AWARDS

York University Merit Award, 2007
Ontario Graduate Scholarship, Ontario, Canada, 2000-01
University of Toronto, Open Fellowship, 1999-2003
McMaster University Dean's List, 1997-98
McMaster University Graduate Scholarship, 1996-98
Bilkent University, Undergraduate and Graduate Scholarships, 1990-96

RESEARCH FUNDING**External**

2004-09 **NSERC, Individual Discovery Grant, \$85,000** (\$17,000 per year for 5 years)

Title: E-commerce revenue management: realistic and practical models for multiple products.

Internal

2005 - 08 Atkinson Faculty, Research Fellowship, 1 course credit per year

2004 - 05 Atkinson Faculty, Junior Faculty Grant, Minor Research Grant, and Conference Travel Grant

PUBLICATIONS**Peer Reviewed Chapters in Books**

1) Chan, L.M.A. and M. Karakul, "Inventory Control Theory: Deterministic and Stochastic Models," in G. Don Taylor (Ed.), *Logistics Engineering Handbook*, Taylor & Francis CRC Press, 2007.

2) Karakul, M., and H. Qudrat-Ullah, "How to Improve Dynamic Decision Making? Practice and Promise," in H. Qudrat-Ullah, M. Spector, and I. Davidson, (Eds.). *Complex Decision Making: Theory and Practice*, USA: Springer-Verlag, 2007.

Journal Articles in Refereed Journals

1) Dasci, A. and M. Karakul, "Two-period Dynamic versus Fixed-Ratio Pricing in a Capacity Constrained Duopoly," *European Journal of Operational Research*, 2008, doi:10.1016/j.ejor.2007.12.039.

2) Karakul, M. and L.M.A. Chan, "Analytical and Managerial Implications of Integrating Product Substitutability in the Joint Pricing and Procurement Problem," *European Journal of Operational Research*, **Vol. 190/1**, pp 179-204, 2008.

3) Karakul, M. "Joint Pricing and Procurement of Fashion Products in the Existence of a Clearance Market," *International Journal of Production Economics*, 2008, doi:10.1016/j.ijpe.2007.03.026.

4) Dasci, A. and M. Karakul, "Performance evaluation of a single-stage two-product manufacturing system operating under pull-type control," *Computers and Operations Research*, **Vol. 35**, Issue 9, Sept. 2008, 2861-2876.

5) Karakul, M. and A. Dasci, "An Approximation Method to Analyze Polling Models of Pull-Type Production Systems," *European Journal of Industrial Engineering*, **Vol. 1**, No. 2, 2007, 200-222.

6) Qudrat-Ullah, H., and M. Karakul, "Modeling for Policy Assessment in the Electricity Supply Sector of Pakistan," *International Journal of Energy Sector Management*, **Vol. 1**, Issue 3, 2007.

7) Qudrat-Ullah, H. and M. Karakul, "Decision Making in Interactive Learning Environments: Towards an Integrated Model," *Journal of Decision Systems*, **Vol. 16/1**, 2007, 79-99.

8) Karakul M. and M. Parlar, "Optimal Switchover Times Between Two Activities Utilizing the Same Resource," *Naval Research Logistics*, **Vol. 49**, Issue 2, March 2002, 186-203.

Papers in Refereed Conference Proceedings

Karakul M. and L.M.A. Chan, "Newsvendor Problem of a Monopolist with Clearance Markets," *YA/EM 2004 Conference Proceedings on CD-ROM*, Adana, Turkey, June 2004.

Journal Articles under Review in Refereed Journals

- 1) Karakul, M. and L.M.A. Chan, "Joint Pricing and Procurement of Substitutable Products with Random Demands," under review.

Works in Progress

- 1) Multiple period optimal procurement of substitutable products with random demands and discretionary sales (with L.M.A. Chan, Virginia Tech).
- 2) A Modified First-Fit-Decreasing Heuristic for the Open Bin Packing Problem (with L.M.A. Chan, Virginia Tech).
- 3) Comparison of two First-Fit-Decreasing type Heuristics for the Open Bin Packing Problem, (with L.M.A. Chan, Virginia Tech).
- 4) Optimal Maintenance and Replacements Decisions for Stochastically Failing Equipment.
- 5) Pricing and Inventory Control of Substitutable Products: A literature review from the Operations Research/Management Science Perspective.
- 6) Pricing and Inventory Decisions in New Product Introduction: The Impact of Market Cannibalization and Substitution.

PARTICIPATION AT MEETINGS

Invited Presentations

- 1) Karakul, M. and A. Dasci, "Static and Dynamic Pricing in a Capacity Constrained Duopoly," CORS Conference, London, Ontario, June 2007.
- 2) Karakul, M., "Analytical and Managerial Implications of Integrating Product Substitutability in the Joint Pricing and Procurement Problem," Desautels School of Management, McGill University, June 2007.
- 3) Karakul, M., "Analytical and Managerial Implications of Integrating Product Substitutability in the Joint Pricing and Procurement Problem," Rotman School of Management, University of Toronto, February 2007.
- 4) Karakul, M., "Combined Pricing and Production Decisions in Stochastic Inventory Control Theory," Virginia Institute of Technology, Grado Department of Industrial and Systems Engineering, Blacksburg, VA, February 2005.
- 5) Karakul, M., "Combined Pricing and Production Decisions in Stochastic Inventory Control Theory," School of Administrative Studies Brown-bag Research Seminars, January 2005.
- 6) Karakul, M., "Combined Pricing and Production Decisions in Stochastic Inventory Control Theory," University of Waterloo, Management Science Department, December 2004.

- 7) Karakul, M. and L.M.A. Chan, "Newsboy Problem with Pricing and Clearance Markets, CORS/INFORMS Joint Meeting, Banff, Canada, May 2004.
- 8) Karakul, M. and L.M.A. Chan, "Optimal Pricing and Inventory Management of Substitutable Products," INFORMS, Atlanta, Oct. 2003.
- 9) Karakul, M. and L.M.A. Chan, "Newsboy Problem of a Monopolist with Two Customer Categories," INFORMS, Atlanta, Oct. 2003.
- 10) Karakul, M. and L.M Ann Chan, "Optimal Introduction of Substitutable Products: Combined Pricing and Production Decisions," CORS, Vancouver, June 2003.
- 11) Karakul, M. and L.M Ann Chan, "Optimal Pricing and Ordering Decisions for Two One Way Substitutable Products: How much to Discount?" IFORS Triennial, Edinburgh, July 2002.

Contributed Presentations

- 1) Karakul, M. and L.M Ann Chan, "Optimal Procurement of Substitutable Products over a Finite Planning Horizon with Random Demands and Discretionary Sales," EURO Working Group on Stochastic Modeling, Istanbul , Turkey, June 2008.
- 2) Karakul, M. and L.M Ann Chan, "Multiple period optimal procurement of substitutable products with random demands and discretionary sales," CORS/Optimization Days, Quebec City , Quebec, May 2008.
- 3) Karakul, M., "Pricing and Inventory Control of Substitutable Products," International Federation of Operational Research Societies (IFORS) Triennial, Hawaii, July 2005.
- 4) Karakul, M., "Newsvendor Problem with Pricing and Clearance Markets," POMS, Chicago, April 2005.
- 5) Karakul, M., "Newsvendor Problem of a Monopolist with Clearance Markets, YA/EM, Adana, Turkey, June 2004.
- 6) Karakul, M. and L.M.A. Chan, "Optimal Introduction of Substitutable Products: Combined Pricing and Ordering Decisions," INFORMS, San Jose, Nov. 2002.
- 7) Karakul, M., "Optimal Pricing and Ordering Decisions for Substitutable Products," CORS Conference, Toronto, June 2002.
- 8) Karakul, M. and L.M.A. Chan, "Combined Pricing and Ordering Decisions for Two One-Way Substitutable Products," Optimization Days, Montreal, May 2002.
- 9) Karakul, M. and L.M.A. Chan, "Optimal Introduction of a Substitutable Product: Combined Pricing and Ordering," POMS Conference, San Francisco, April 2002.

COURSES TAUGHT

Undergraduate Courses

School of Administrative Studies, York University

AK/ADMS 3300 – Decision Analysis

AK/ADMS 3320 – Quantitative Methods I

AK/ADMS 3330 – Quantitative Methods II

AK/ADMS 3351 – Operations Management, in-class and internet

AK/ADMS 3331 – Introduction to Operations Research

Schulich School of Business, York University

SB/OMIS 2010 – Management Science: Modeling and Analysis

Graduate Course

Rotman School of Management, University of Toronto

MGT 1382 – Statistics for Managers

COURSES DEVELOPED

Undergraduate Courses

AK/ADMS 3331 Introduction to Operations Research

AK/ADMS 3333 Supply Chain Management

Graduate Course

AK/ADMS 6320 - Operations Research Methods for Logistics Management

COURSES THAT CAN BE OFFERED

Supply Chain Management, Logistics Management, Production Operations Management, Project Management, Revenue Management, Operations Research, Management Science, Dynamic Programming, Probability Theory, Stochastic Processes, Statistics

SERVICE

FACULTY LEVEL

Merit Committee, 2005-2006 Academic Year

Elected Member, Atkinson Committee on Research, 2004-06

Panelist, Atkinson Research Day, 2008

DEPARTMENT LEVEL

Academic Leadership

1) Area Coordinator, Management Science Area, ADMS, York University, 01/05 – 06/05

2) Chair, Tenure and Promotion File Preparation Committee, 2007

3) Chair, Management Science Faculty Hiring Committee, 2004-05

4) Junior faculty mentor

Recruitment

5) Member, 4 Tenure-Track Faculty Hiring Committees, 2004-07

6) Member, E-commerce Tenure-Track Faculty Hiring Committee, 2004-05

7) Chair, Management Science CLA hiring Committee, 2004-05

8) Hired, trained, and supervised part-time faculty

Program Development - Undergraduate

- 9) Logistics Certificate, updated the Logistics certificate curriculum
- 10) Management Science Honors option, curriculum and course development

Program Development - Graduate

- 11) Masters in Logistics Management, curriculum and course development

Standing Committee Memberships

- 12) Elected Member, School of Administrative Studies Research Committee, 2005-2007
- 13) Elected Member, School of Administrative Studies Chairs and Curriculum Committee, 2006 – present

Ad-hoc Committee Memberships

- 14) Member, Tenure and Promotion File Preparation Committee (2), 2008.

Collegiate Assistance

- 15) Acting Area-Coordinator, Acting Chair of 2006-07 Hiring Committee, Substitute Instructor, Assist colleagues' grant applications.

EXTERNAL/COMMUNITY SERVICE**Grant and Personnel Committees**

- NSERC Discovery Grant Application Reviewer (2), 2007
- Atkinson Research Committee, 2004-06
- Atkinson Merit Committee, 2005

Journal Referee

- European Journal of Operational Research, (2) 2007, 2008
- Systems, Man and Cybernetics, Part A, 2007
- Optimal Control: Applications and Methods, 2006
- International Journal of Production Economics, 2006, 2008
- IIE Transactions, 2002, 2004, 2005, 2006
- Operations Research, 2001

Conference Session Organizer/Chair (Corresponding talks are listed in Participation at Meetings section)

- Organized and Chaired* an invited session in CORS Conference, London, Ontario, June 2007
- Organized and Chaired* an invited session in CORS/INFORMS Joint Meeting, Banff, Canada, May 2004
- Organized and Chaired* an invited session in INFORMS Conference, Atlanta, Oct. 2003
- Organized and Chaired* an invited session in CORS Conference, Vancouver, June 2003
- Chaired* a session in INFORMS Conference, San Jose, Nov. 2002
- Chaired* a session in POMS Conference, San Francisco, April 2002

Management Science Area Research Seminar Organizer

- Organized external speakers to give research seminars at School of Administrative Studies 2006-07

Local Community

- Program Chair, Canadian Operations Research Society Toronto Executive Committee, 2007-present.
- Student Volunteer for the Organizing Committee for the CORS 2002 conference, Toronto, Canada
- Canadian Operations Research Society, Toronto Executive Committee, Distinguished Speakers Series Dinner and a Talk Organizer, 2008

REFERENCES

- Available upon request.