Maqbool Dada

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Education

Sloan School of Management, Massachusetts Institute of Technology, Cambridge, MA

1984	Ph.D. in Management (Major: Operations Management; Minor: Operations
	Research)

College of Engineering, University of California, Berkeley, CA

1978 B.S. in Industrial Engineering and Operations Research Inducted into *Alpha Pi Mu*

Academic Appointments

Carey Business School, Johns Hopkins University, Baltimore, MD

 1/09 to date Professor of Operations Management and Business Analytics Associate Dean for Fulltime Programs, 2009 Academic Board, 2009 - 2014 Chair, Curriculum Committee, 2009 - 2016 Joint Appointment, Anesthesia and Critical Care Medicine, School of Medicine, Co-Director Medical Operations Research Core Core Faculty, Armstrong Institute for Patient Safety and Quality Affiliated Faculty, Malone Center for Engineering in Healthcare Senior Research Fellow, 21st Century Cities Service and Mentorship Award, 2020

Krannert Graduate School of Management, Purdue University, West Lafayette, IN

 8/01 to 12/08 Professor of Management Coordinator, Operations Management Area (8/98-9/08) Krannert Fellow, 2000-2002 Honeywell Manufacturing Management Excellence in Teaching Award, 2001
 8/92 - 7/01 Associate Professor of Management Kellogg Graduate School of Management, Northwestern University, Evanston, IL

8/96 – 6/98 Visiting Associate Professor of Operations Management, Managerial Economics and Decision Sciences Department

College of Business Administration, University of Illinois at Chicago, Chicago, IL

9/84 – 8/92 Assistant Professor, Department of Information and Decision Sciences

Graduate School of Business, University of Chicago, Chicago, IL

3/90 – 7/90 Visiting Assistant Professor of Management Science

Monograph

Chambers C, Dada, M., K. A. Williams, (2022), <u>Improving Healthcare Processes – Lessons from</u> <u>Hopkins Medicine</u>, Springer Nature.

Publications in Refereed Journals

J. Li, P. Kouvelis and M. Dada, "Agricultural Supply Chains in Emerging Markets: Competition and Cooperation under Correlated Yields", forthcoming at *Manufacturing & Service Operations Management*.

Y. Xu, D. Serel, A. Bisi and M. Dada, (2023), "Using Lost-Sales to Manage Backorder-Time Guarantees in a Base-Stock Inventory System", *IISE Transactions*.

B. Hathaway, E. Kagan and M. Dada, (2022) "The Gatekeeper's Dilemma: 'When Should I Transfer This Customer", *Operations Research*. Best Working Paper in Behavioral Operations Management Award, at INFORMS 2020.

S. Singh, K. J. Rydland, C. Chambers, et al. et al., (2022), "Implications for cost and access of site-of-service referrals for ancillary medical services in a US Medicaid population: analysis of claims data from Maryland, USA," *BMJ Open*, 12 (6), e058104.

M. Dada, V. Mundlye, C. Chambers et al., (2022), "Enhancing Efficacy of Prior Approval for Site of Service Referrals," *BMC Health Services Research*, 22(1), 1-7.

Y. Xu, D. Serel, A. Bisi and M. Dada et al., (2022), "Coping with Demand Uncertainty: The Interplay Between Dual Sourcing and Endogenous Partial Backordering," *Production and Operations Management*, 31 (4), 1560 – 1575.

P. Kumar and M. Dada, (2021), "Investigating the Impact of Service Line Formats on Satisfaction with Waiting," *International Journal of Research in Marketing*. 38 (4), 974-993.

T. E. Nguyen, C. Chambers, and M. Dada, (2021), "Crowdsourcing Anaesthesia Care. Comment on Br J Anaesth 2016; 117: 276-279", *Br J Anaesth*. DOI: 10.1016/j.bja.2021.07.012. PMID: 34419242.

C. Chambers, M. Dada and K. Williams, (2020), "Tips from the Field: how to Enhance Practice Efficiency," *Practical Pain Medicine*, 20 (4).

R. Wang, M. Dada and O. Sahin, (2019), "Pricing of Ancillary Subscriptions," *Management Science*, 65 (10), 4712-4732.

Y. Xu et al. (2019), "Structural Properties of the lost sales problem with fractional lead times," *Operations Research Letters*, 47 (5), 410-416.

Conley, W.K., et.al., (2018), "Using Real-time Location System Technology to Measure Process Flow in a Radiation Oncology Outpatient Clinic," *Practical Radiation Oncology*, 8 (5), 317-323.

C. Chambers, M. Dada and E. Gurewitsch Allen, (2017), "Evaluating Hospitals' Comparative Effectiveness in Managing Shoulder Dystocia Using Data Envelopment Analysis. *J Soc Reprod Investig* (published abstract).

J. Chen, M. Dada and Q. Hu, (2017), "Flexible Procurement Contracts for Competing Retailers," (2017), *European Journal of Operational Research*, 259 (1), 130-142.

Y. Xu et al., (2017), "A Finite-Horizon Inventory System with Partial Backorders and Inventory Holdback," *Operations Research Letters*, 45 (4), 315-322.

Y. Xu, A. Bisi and M. Dada, (2017) "New structural properties of inventory models with Polya frequency distributed demand and fixed setup cost," *Journal of Industrial and Management* Optimization, 13 (2), 931-945.

C. G. Chambers, M.Dada, S. Elnahal, S. Terezakis, T. DeWeese, J. Herman, K. A. Williams, (2016), "Changes to Physician Processing Times in Response to Clinic Congestion and Patient Punctuality: A Retrospective Study," *BMJ open*, 6 (10), e011730.

J. Chen, M. Dada and Q. Hu, (2016), "Designing Supply Contracts: Buy-Now, Reserve and Wait-and-See," *IIE Transactions*, 48 (10), 881-900.

S. M. Elnahal et al., (2015), "Defining Clinical Process Value in Radiation Oncology: A Pilot Study Using a Real Time Location System and Discrete Events Simulation Technology," *International Journal of Radiation Oncology Biology Physics, (published abstract).*

Elnahal, S. M. et al., (2015), "Treatment Machine Workload Is Associated With Near-Miss and Safety Incidents: Analyzing Safety With a Novel Operations Management Data System," *International Journal of Radiation Oncology Biology Physics, (published abstract).*

K. Williams, C. G. Chambers, M. Dada, P. J. Christo, D. Hough, R. Aron and J. A. Ulatowski, (2015), "Applying JIT Principles to Resident Education to Reduce Patient Delays: A Pilot Study in an Academic Medical Center Pain Clinic," *Pain Medicine*, Volume 16, Pages 312-316.

K. Williams, C. G. Chambers, M. Dada, J. C. McLeod and J. A. Ulatowski, (2014), "Patient punctuality and clinic performance: observations from an academic-based private practice pain centre: a prospective quality improvement study," *BMJ Open* 4 (5), e004679.

K. Williams, C. G. Chambers, M. Dada, D. Hough, R. Aron and J. A. Ulatowski, (2012), "Using Process Analysis to Assess the Impact of Medical Education on the Delivery of Pain Services: A Natural Experiment," *Anesthesiology*, Volume 116, 931-939.

A. Bisi, M. Dada and S. Tokdar, (2011) "A Censored-Data Multiperiod Inventory Problem with Newsvendor Demand Distributions," *Manufacturing & Service Operations Management*, Volume 13, pp. 525-533.

Y. Xu, A. Bisi and M. Dada (2011), "A Periodic Review Base Stock Inventory System with Sales Rejection," *Operations Research*.

Y. Xu, A. Bisi and M. Dada (2010), "New Structural Properties of (*s*, *S*) Policies: Application to PF_n Distributed Demand", *Operations Research Letters*, Volume 38, 2010, Pages 441-449.

Y. Xu, A. Bisi and M. Dada (2010), "A Centralized Ordering and Allocation System with Backorders and Strategic Lost Sales," *IIE Transactions*, Volume 42, Pages 435-453.

K. Wee and M. Dada (2010), "A Make-To-Order Manufacturing System with Component Commonality: A Queuing Approach," *IIE Transactions*, Volume 42, Pages 812-824.Y. Xu

N. C. Petruzzi, K. Wee and M. Dada (2009), "The Newsvendor Model with Heterogeneous Consumers," *Production and Operations Management*, Volume 18, 693-704.

J. Li, S. C. Chand, M. Dada and S. Mehta (2009), "Managing Inventory over a Short Season: Models with Two Procurement Opportunities," *Manufacturing & Service Operations Management,* Volume 11, 174-184.

Dada, M. and Q. Hu, (2008), "Financing Newsvendor Inventory," *Operations Research Letters*, Volume 36, 269-273.

M. Dada, N. C. Petruzzi and L. B. Schwarz, "A Newsvendor's Procurement Model with Unreliable Suppliers," (2007), *Manufacturing & Service Operations Management*, Volume 9, 9-32.

Bisi and M. Dada, (2007), "Dynamic Learning, Pricing, and Ordering by a Censored Newsvendor," *Naval Research Quarterly*, Volume 54, 448-461.

K. Wee and M. Dada, (2005), "Optimal Policies for Transshipping Inventory in a Retail Network," *Management Science*, Volume 51, 1519-1533.

B. Kazaz, M. Dada and H. Moskowitz, (2005), "Global Production Planning under Exchange-Rate Uncertainty," *Management Science*, Volume 51, 1101-1119.

G. Reinhardt and M. Dada, (2005), "Allocating the Gains from Resource Pooling with the Shapley Value," *The Journal of the Operational Research Society*, Volume 56, 997-1000.

S. Chopra, G. Reinhardt and M. Dada, (2004), "The Effect of Lead Time Uncertainty on Safety Stock," *Decision Sciences*, Volume 35, 1-24.

G. Reinhardt, M. Dada and S. Chopra, (2003), "Coal Movement by Railroad in the Powder River Basin," *Energy Studies Review*, Volume 11, 55-73.

D. Serel, M. Dada, H. Moskowitz and R. Plante, (2003), "Investing in Quality under Autonomous and Induced Learning," *IIE Transactions*, Volume 35, 545-555.

N. C. Petruzzi and M. Dada (2002) "Dynamic Pricing and Inventory Control with Learning," *Naval Research Logistics*, Volume 49, 303-325.

N. C. Petruzzi and M. Dada, (2001), "Information and Inventory Recourse for a Two-Market, Price-Setting Retailer," *Manufacturing & Service Operations Management*, Volume 3, 242-263.

E. Schmidt, M. Dada, J. Ward and D. Adams, (2001), "Using Cyclic Planning to Manage Capacity at ALCOA," *Interfaces*, Volume 31, 16-27.

D. Serel, M. Dada and H. Moskowitz, (2001), "Sourcing Decisions under Capacity Reservation Agreements," *European Journal of Operational Research*, Volume 131, 635-648.

J. A. Van Mieghem and M. Dada, (1999), "Price versus Production Postponement: Capacity and Competition," *Management Science*, Volume 45, pp.1631-1649.

M. Dada and W. D. White, (1999), "Evaluating Financial Risk in the Medicare Prospective Payment System," *Management Science*, Volume 45, pp. 316-329.

N. C. Petruzzi and M. Dada, (1999), "Pricing and the Newsvendor Problem: A Review with Extensions," *Operations Research*, Volume 47, pp. 183-194.

R. Anupindi, M. Dada and S. Gupta, (1998), "Estimation of Consumer Demand with Stock-out Based Substitution: An Application to Vending Machine Products," *Marketing Science*, Volume 17, pp. 406-423.

P. Kumar, M. U. Kalwani and M. Dada, (1997), "The Impact of Waiting Time Guarantees on Customers' Waiting Experiences," *Marketing Science*, Volume 16, pp. 295-314.

Y. Babad, M. Dada and A. Saharia, (1996), "An Appointment-Based Service Center with Guaranteed Service", *European Journal of Operational Research*, Volume 89, pp. 246-258.

M. Dada and R. L. Marcellus, (1994), "Process Control with Learning," *Operations Research*, Volume 42, pp. 323-336.

W. D. White and M. Dada, (1993), "Financial Risk and Behavioral Implications of Prospective Payments for Psychiatric Services," *Advances in Health Economics and Health Services Research*, Volume 14, pp. 105-121.

M. Dada, W. D. White, H. H. Stokes, and P. Kurzeja, (1992), "Prospective Payment Options for Exempt Psychiatric Services: An Analysis of Financial Risks," *Journal of Health Politics, Policy and Law*, Volume 17, pp. 583-508.

M. Dada, (1992) "A Two-Echelon Inventory System with Priority Shipments," *Management Science*, Volume 38, pp. 1140-1153.

M. Dada, (1992), "Estimating In-Patient Treatment Costs: A Simple Methodology Illustrated," *Health Information Management Research*, Volume 1, pp. 35-45.

R. L. Marcellus and M. Dada, (1991), "Interactive Process Quality Control," *Management Science*, Volume 37, pp. 1365-1376.

M. Dada and K. N. Srikanth, (1990), "Monopolist Pricing and the Learning Curve: An Algorithmic Approach," *Operations Research*, Volume 38, pp. 656-666.

M. Dada and K. N. Srikanth, (1987), "Pricing Policies for Quantity Discounts," *Management Science*, Volume 33, pp. 1247-1252.

S. Leff, M. Dada and S. C. Graves, (1986), "An LP Planning Model for a Mental Health Community Support System," *Management Science*, Volume 32, pp. 139-155.

Refereed Chapters in Books

Dada M and Chambers C. (2019) Healthcare Analytics. In: Pochiraju B., Seshadri S. (eds) Essentials of Business Analytics. International Series in Operations Research & Management Science, vol 264. Springer, Cham.

Chambers C., Dada M., González Fernández M., Williams K. (2019) Managing Clinical Appointments in an Academic Medical Center. In: Yang H., Qiu R. (eds) Advances in Service Science. INFORMS-CSS 2018. Springer Proceedings in Business and Economics. Springer, Cham. Hu, Q. and Dada, M. (2011). Bank Financing of Newsvendor Inventory: Coordinating Loan Schedules. In The Handbook of Integrated Risk Management in Global Supply Chains (eds P. Kouvelis, L. Dong, O. Boyabatli and R. Li).

Petruzzi, N. C. and Dada, M. (2011). Newsvendor Models. In Wiley Encyclopedia of Operations Research and Management Science (eds J. J. Cochran, L. A. Cox, P. Keskinocak, J. P. Kharoufeh and J. C. Smith).

Manuscripts under Review/Revision

C. Chambers et al., "Case Article: RTLS & The Radiation Oncology Clinic Expansion" under revision for second round submission at *Informs Transactions on Education*

E. Kagan et al., "AI Chatbots in Customer Service: Adoption Hurdles and Simple Remedies," under second round review at *Management Science*. Best Working Paper in TIMES Award, at INFORMS 2023.

M. Dada et al., "The Omnichannel Service Desk: Live Agents, Chatbots or Both?"

D. Serel et al., "Estimating Demand from Sales: A Consumer Purchase Approach."

Research Grants and Topics

Academic Institutions

- 2017 "Strengthening Health Service Delivery and Building Human Capacity to Reduce Maternal Morbidity and Mortality in Sierra Leone" (with J. Anderson et al.), Johns Hopkins Alliance for a Healthier World.
- 2008 "Global Supply Chain Management with Unknown Demand Distribution," (with A. Bisi), Global Supply Chain Management Initiative, Purdue University.
- 1998" A Model to Evaluate the Value of Outsourcing Logistics: A Queuing Approach," Purdue Research Foundation, Purdue University.
- 1996 "Risk Pooling in N-Retailer Inventory Systems," Center for the Management of Manufacturing Enterprises, Purdue University.
- 1995 "The Impact of Information Technology on Prices, Inventory Policy, Response Times, and Competitive Interaction" (with S. Mehta), Center for the Management of Manufacturing Enterprises and Center for International Business Education and Research, Purdue University.
- 1994 "Optimal Stocking and Pricing Policy: The Implication of Learning from Censored Data,"

Purdue Research Foundation, Purdue University.

- 1993 "Inventory Management in International Markets: Implications for Seasonal Goods," Center for International Business Education and Research, Purdue University.
- 1990 "Product Costing Project," (with P. Chalos), University of Illinois Hospitals.
- 1986 "Planning and Control of Hospital Operations," funded by Institute of Government and Public Affairs, University of Illinois.

Public Agencies

2020	"Analysis of Fuel Procurement," (with M. A. Yazdi Alamdar), City of Baltimore.
2007	"Phases 1-4 - Reducing Delays in Enrolling in the Energy Assistance Program," (with D. McKinnis), Indiana Housing and Community Development Authority.
1992	"The Design and Implementation of Information Systems for Performance Improvement," Department of Streets and Sanitation, City of Chicago.
1991	"The Design of a Timekeeping and Attendance System," Department of Streets and Sanitation, City of Chicago.
1990	"Model Curricula in Health Information Management and Health Information Science," (co-investigator), US Department of Health and Human Services.
1990	"A Risk Analysis of Payment Options for Psychiatric Care," funded by the National Institute of Mental Health, (co-principal investigator).
1990	"The Design and Evaluation of an Accounting Information System," Department of Streets and Sanitation, City of Chicago.

Research Supervision

Doctoral Dissertation Committees

University of Illinois at Chicago

R. Limhoopatipa (Industrial Engineering, 1988, Co-chair.)

Purdue University

Jen-yi Chen (Operations Management, 2010), Cleveland State University Yanyi Xu (Operations Management, Chair, 2006), Shanghai University. Jian Li (Operations Management, 2005), Northeastern Illinois University.

Binling Lu (Quantitative Methods, 2004.)

Jun-Yeon Lee, (Operations Management, 2004), University of Houston.
Kwaneng Wee (Operations Management, 2000, Chair), Singapore Management
University
Apurva Jain (Operations Management, 1999), University of Washington.
Nerses Kazarian (Economics, 1998, Co-chair.)
Dogan Serel (Quantitative Methods, 1998), Bilkent University.
Burak Kazaz (Quantitative Methods, 1997), Syracuse University.
Edith Schmidt (Operations Management, 1996), Purdue University.
Nicholas C. Petruzzi. (Operations Management, 1995, Chair), University of Illinois.

Northwestern University

Simrita Singh (Operations Management, 2023), Santa Clara University Gilles Reinhardt (Operations Management, 1998), DePaul University

Professional Service

Department Editorship

ISIE Transactions 2009 - to date.

Associate Editorships

Production and Operations Management, 2003-2005, 2020 – to date. Decision Sciences, 2005 – 2009, 2010 - 2015 Management Science, 2006 – 2008. Manufacturing & Service Operations Management 2009 – 2015.

Membership on Editorial Review Boards

Manufacturing & Service Operations Management, 1999-2001. IISE Transactions, 2000 – to date

Ad Hoc Reviewing (selected)

Operations Research Management Science Marketing Science Manufacturing & Service Operations Management IIE Transactions Decision Sciences Production and Operations Management Naval Research Logistics Mathematical Programming European Journal of Operational Research International Journal of Industrial Organizations