Vijay Mehrotra
Department of Finance and Quantitative Analytics
School of Business and Professional Studies
University of San Francisco
415-422-2257 / vmehrotra@usfca.edu

EDUCATION

Stanford University, Stanford, CA

- **PhD, Operations Research, 1992**
  Advisor: Professor Frederick S. Hillier
  Dissertation: "An Approximation Procedure for General Closed Multiclass Queueing Networks"

- **MS, Operations Research, 1989**
  Focus on Optimization, Stochastic Methods, Policy, and Applications
  Key Papers: "Survey of Economic Models of Rural-Urban Migration From Arthur Lewis to Present," "Analysis of Case Studies on Using Telecommunications for Competitive Advantage"

St. Olaf College, Northfield, MN

- **BA, Mathematics, Economics, and Statistics, 1986**
  Advisor: Professor Theodore A. Vessey
  Senior Thesis: "Institutional Strategies For Enabling Families to Finance Private College Education"

UNIVERSITY FACULTY EXPERIENCE

Associate Professor, Department of Finance and Quantitative Analytics, University of San Francisco, August 2009 – present

Assistant Professor, Decision Sciences Department, San Francisco State University, August 2003 – July 2009

Visiting Scholar, Department of Industrial Engineering and Operations Research, University of California, Berkeley, June-December 2006

Conducted Research in Customer Service Operations, Call Center Workforce Management, and Services Science, Management, and Engineering (SSME).

BUSINESS EXPERIENCE

Vice President, Blue Pumpkin Software Inc., June 2002-June 2004

Software company whose software focused on call forecasting and agent scheduling for the call center industry. Over 1000 customers worldwide.

My group's mission was to diagnose customer business needs, develop solutions that leverage our products and services, and deliver these solutions to customers on time and under budget. My team included MBAs and PhDs from Stanford, Berkeley, MIT, and other outstanding institutions.

Co-Founder and CEO, Onward Inc., June 1994 – June 2002.

Onward was an Operations Management consulting firm focused on the successful and appropriate application of mathematical models to "real-world" problems. Along with my two partners, I grew the business from 3 people in 1994 to 30 by the end of 2000. In addition to its core competencies in Operations Research, Statistics, and Information Technology, the company had deep domain expertise in many areas, including call center operations, sales force automation, configuration modeling, supply chain optimization, real options, and Investment Science. Clients included Intuit, Charles Schwab, Advertising.com, Sun, Lucent, HP, and Applied Materials.

Associate, Decision Focus Inc. (now part of Manugistics), March 1993 – June 1994

DFI's core business was in the area of revenue management for transportation and hospitality industries. While at DFI, I worked on the design and development of forecasting, routing, and reporting systems.

Statistical Applications Specialist, Stanford Academic Information Resources, January 1990 – June 1992

Trained as an expert in SAS and SPSS, I worked as part of an applications support group.

Independent Consultant, June 1987 – March 1993

Specialized in modeling business processes and developing solutions. Clients included IBM, PG&E, Hotel Sofitel, Hewlett Packard, National Semiconductor, and Tyecin Systems.

RESEARCH

Peer Reviewed Journal Articles Published

Saltzman, R. M. and V. Mehrotra, "A Call Center Uses Simulation to Drive Strategic Change," ***Interfaces***, Vol. 31, No. 3, May-June 2001, pp. 87-101.

Mehrotra, V. "Evolution of the Modern Contact Center," ***Call Centre Journal***, Vol. 5, No. 3, March 2003.

Mehrotra, V. and K. Mello. " 'A Different Game'? Analyzing Management Strategies In Baseball's World Series Using A Markov Chain Model," ***California Journal of Operations Management,*** Vol. 3, No. 1, February 2005, pp. 92-98.

Armony, M., Aksin, Z., and Mehrotra, V. "The Modern Call-Center: A Multi-Disciplinary Perspective on Operations Management Research," ***Production and Operations Management***, Vol. 16, No. 6, November-December 2007.

Stanley, J. D., Saltzman, R. M., and Mehrotra, V. "Improving Call Center Operations Using Performance-Based Routing Strategies," ***California Journal Of Operations Management***, Vol. 6, No. 1, February 2008, pp. 24-32.

Grossman, T. A., Mehrotra, V., and Özluk, Ö. "Lessons From Mission-Critical Spreadsheets," ***Communications of the Association for Information Systems,*** Vol. 20, August 2009, pp. 1009-1042.

Steckley, S., Henderson, S., and Mehrotra, V. "Forecast Errors in Service Systems," ***Probability in the Engineering and Informational Sciences***, Vol. 23, No. 2, April 2009, pp. 305-332.

Mehrotra, V. and T. A. Grossman. "OR Process Skills Transform an Out of Control Call Center into a Strategic Asset, ***Interfaces***, Vol. 39, No. 4, July-August 2009, pp. 346-352.

Peer Reviewed Journal Articles Accepted for Publication (To Appear)

Mehrotra, V., Ozluk, O., and Saltzman, R. M. "Intelligent Procedures for Intra-Day Updating of Call Center Agent Schedules," ***Production and Operations Management***, Accepted for Publication, June 2009.

Mehrotra, V. "A Review of Scott A. Shane's **Fool's Gold: The Truth Behind Angel Investing in America**," *The Economic Record*, Accepted for Publication, June 2009.

Journal Articles Under Review By Peer Reviewed Journals

Mehrotra, V., Ross, K., Ryder, G. and Zhou, Y.-P. "Call Center Routing Strategies in the Presence of Servers with Heterogeneous Performance Attributes," *Manufacturing and Services Operations Management* (MSOM), Submitted August 2009.

Peer Reviewed Articles Published in Conference Proceedings

Tullis, B., V. Mehrotra, et al, "Successful Modeling of a Semiconductor R&D Facility," *IEEE International Semiconductor Manufacturing Science Symposium*, 1990.

Baudin, M., V. Mehrotra, et al, "From Spreadsheets to Simulation: A Comparison of Analysis Methods For IC Manufacturing," *IEEE International Semiconductor Manufacturing Science Symposium*, 1992.

Mehrotra, V. and J. Fama. "Call Center Simulation Modeling: Methods, Challenges, and Opportunities," In *Proceedings of the 2003 Winter Simulation Conference*, ed. S.Chick, P.J. Sanchez, D. Ferrin, and D.J. Morrice, p. 135-143. Piscataway, New Jersey: Institute of Electrical and Electronic Engineers, 2005.

Saltzman, R. M. and V. Mehrotra. "A Manager-Friendly Platform for Simulation Modeling and Analysis of Call Center Queueing Systems. In *Proceedings of the 2004 Winter Simulation Conference*, ed. R.G. Ingalls, M.D. Rossetti, J.S. Smith, and B.A. Peters. Piscataway, New Jersey: Institute of Electrical and Electronic Engineers.

Steckley, S., Henderson, S. and Mehrotra, V. "Performance Measures for Service Systems with a Random Arrival Rate," In *Proceedings of the 2005 Winter Simulation Conference*, ed. M. E. Kuhl, N. M. Steiger, F. B Armstrong, and J.A. Joines, Piscataway, NJ: Institute of Electrical and Electronic Engineers, 2005.

Saltzman, R. M., Mehrotra, V. "Managing Trade-Offs in Call Center Agent Scheduling: Methodology and Case Study," *Proceedings of the 2007 Summer Computer Simulation Conference*, G. A. Wainer and H. Vakilzadian, eds., pp. 643-651, July 2007.

Other Published Articles

Mehrotra, V. "Ringing Up Big Business," ***Operations Research/Management Science Today***, 24(4), August 1997.

Mello, K. and Mehrotra, V. "Analyzing Small Ball in the Postseason," ***By the Numbers: Newsletter of the SABRE Statistical Analysis Committee***, 14(1), p. 11-15, 2004.

Mehrotra, V. ***"***The World Has Changed. Have You? A New Paradigm for Customer Service Management," ***CRMToday***, November 2005.

Mehrotra, V. "Looking Beyond The Call Center: Preventing Erosion In Your Customer Base And Profits," ***Customer Interaction Solutions***, March 2006.

Hildebrandt, R.E. and Mehrotra, V. "How to Avoid the Pitfalls of Outsourcing: Tapping Customer Data to Reduce Churn, Preserve Savings, and Eliminate the Feedback Gap, ***Data Management Review***, May 2006.

Lesser, E. and Mehrotra, V. "Creating Value from Investments in Labor Scheduling," ***International Human Resources Information Management Journal***, May/June 2006.

Mehrotra, V. 2007. "Teaching vs. the Real World," ***Operations Research/Management Science Today***, 34(4), August 2007.

Other Conference Presentations

Mehrotra, V. "Keeping the 'Up' in Start-Up," ***INFORMS Atlanta***, November 1997.

Mehrotra, V. "Careers in Industry," ***INFORMS Doctoral Colloquium,*** Seattle, October 1998.

Mehrotra, V. "Agent Scheduling for Today's Call Center – and Tomorrow's," ***INFORMS Cincinnati***, November 1999.

Mehrotra, V. and Georgiou, I. "Designing and Managing e-Customer Contact Centers," ***Decision Sciences Institute (DSI) Conference***, November 2001.

Mehrotra, V. "Skill Based Routing and Workforce Management in the Multi-Channel Contact Center," ***Conference of the Production and Operations Management Society (POMS)***, April 2002.

Hegazi Sanford, R. and Mehrotra, V. "The Impact of Communication in an Enrollment Management Organization: A Case Study of the First-Year Writing Program at Stanford University," ***International Conference on Education***, January 2004.

Mehrotra, V., "Workforce Management Panel: Customer Conversations and Embedded WFM Problems," ***Wharton Call Center Forum***, May 2004.

Mehrotra, V. "The Value of a Network: Priceless," ***INFORMS Future Practitioners Colloquium,*** Denver, November 2004.

Mehrotra, V. " 'The Older I Get, the Better I Was When I Was Young': Managing Your Skill Set," ***INFORMS Future Practitioners Colloquium,*** San Francisco, November 2005.

Mehrotra, V. and Özluk, Ö. "An Intelligent Intra-Day and Intra-Week Updating Model for Call Center Scheduling," ***INFORMS San Francisco***, November 2005.

Mehrotra, V. " 'Follow the Money': An Application of Optimization to Not-For-Profit Cash Flow Management," ***Canadian Operations Research Society Conference***, Montreal, May 2006.

Mehrotra, V. and Özluk, Ö. "An Intelligent Intra-Day Updating Model for Call Center Scheduling With Random Rescheduling Times," ***INFORMS Pittsburgh***, November 2006.

Mehrotra, V. "Leveraging Customer Data to Improve Operational Performance, Drive Customer Loyalty, and Serve the 'Silently Dissatisfied,'" ***7th Annual Call Center Week Conference***, Las Vegas, June 2006.

Mehrotra, V. "Teaching Project Management," ***INFORMS Teaching Management Science Workshop***, San Francisco, July 2006.

Mehrotra, V. "New Approaches to Measuring First Call Resolution: Make it Actionable," ***ICCM Canada,*** October 2007.

Mehrotra, V. "Teaching Business Statistics," ***INFORMS Teaching Management Science Workshop***, Atlanta, July 2007.

Mehrotra, V., Ross, K., Ryder, G., and Zhou, Y.-P. "Performance-Based Routing in the Presence of Heterogeneous Servers and Call Resolution Rates," ***Wharton Call Center Forum***, February 2008.

Mehrotra, V. "Incorporating Technology into Operations Research/Operations Management Courses, ***INFORMS Teaching Effectiveness Colloquium***, Washington, DC, October 2008.

Mehrotra, V. "The Call Center as a Customer Information Exchange and a Knowledge Factory," ***INFORMS Washington DC***, October 2008.

Mehrotra, V. and Grossman, T. A. "If the Phone Doesn't Ring, It's Me": A Software Support Organization's Response to Excess Costs," ***The Art and Science of Service V Conference***, Boston, June 2009.

Mehrotra, V. "Teaching Project Management," ***INFORMS San Diego***, October 2009.

TEACHING BACKGROUND

University of San Francisco, Fall 2009 – Present

Courses Taught:

- Quantitative Business Analysis (Undergraduate)
- Operations Management (Executive MBA)

San Francisco State University, 2003-2009

Courses Taught:

- Business Statistics (Graduate and Undergraduate)
- Operations Management (Graduate, Undergraduate, and Executive MBA)
- Project Management (Graduate and Executive MBA)
- Quality Management (Undergraduate)
- Value Creation in the Transnational Enterprise (Developed Jointly with International Business Department)
- Independent Studies (Graduate and Undergraduate)

Purdue University, 1997-2001

Faculty Member for "Call Center Campus" Executive Education Program for Call Center Professionals

Stanford University, 1988-1992

Teaching Assistant for Courses in:

- Decision Analysis (MBA)
- Deterministic Models in Operations Research
- Stochastic Models in Operations Research
- Probability and Statistics for Engineers (Undergraduate)
- Applications of Operations Research (Graduate

SERVICE BACKGROUND

University of San Francisco, School of Business and Professional Studies

- Faculty Facilitator, Freshmen Week Book Discussion (Fall 2009)
- Member, MBAE Program Design Team
- Academic Director, MBAE Program (Cohorts 2010-1 and 2010-2)
- Member, BPS Programs and Curricula Transition Team

San Francisco State University, College of Business

- Elected by Faculty to Graduate Business Program Director Search Committee
- Faculty Advisor to Decision Sciences Student Association
- Numerous Committee Assignments Including Assessment, Grade Appeals, and Outreach

Other San Francisco State University Service Activities

- Elected by University Faculty to Advisory Committee on University Fundraising
- Faculty Advisor to Indian Students Association
- Partnership with Office of Development to Conduct Statistical Analysis of Alumni Giving Patterns

Institute for Operations Research and Management Science (INFORMS)

- Associate Editor, ***INFORMS Transactions on Education***, 2008-present
- Columnist for ***OR/MS Today*** (Membership Magazine), 1997-present
- Member of Marketing Strategy Committee, 2006-present
- Past President, Northern California Chapter

Bay Area Business Community

- Serving on Technical Advisory Boards for several local start-up companies
- Active in helping place students with a wide range of local firms (including **CoreMetrics**, **Knowledge Networks**, **Rapt**, **Oakland Athletics**, and **AOL/Advertising.com**)
- Student-Driven Consulting Projects with several organizations (including the **Center for Independent Living** and **Rubicon National Social Innovations**)

Stanford University

- Fundraiser for Dantzig-Lieberman Fund, 2005. Personally raised over $100,000 (of $1,200,000 total).
- Focus Group Participant in Designing ***Future Professors of Manufacturing Program***, 1991

PROFESSIONAL AFFILIATIONS

- Institute for Operations Research and Management Science (INFORMS)
- Production and Operations Management Society (POMS)
- Decision Sciences Institute (DSI)
- COMAP (Consortium for Mathematics and its Applications)
- Society of Workforce Planning Professionals (SWPP)

INVITED SEMINARS AND GUEST LECTURES

- Stanford University
- Tulane University
- Cornell University
- Naval Postgraduate School
- University of Texas-Austin
- University of California-Berkeley
- Technion – Israel Institute of Technology
- University of Washington
- University of San Francisco
- St. Olaf College
- Reed College
- Mills College
- University of Calgary
- University of Montreal

EDITORIAL AND REFEREE ASSIGNMENTS FOR ACADEMIC JOURNALS

- INFORMS Transactions on Education (Area Editor)
- Manufacturing and Service Operations Management
- Operations Research
- Management Science
- Interfaces
- Production and Operations Management
- International Journal of Operations and Quantitative Management
- International Journal of Simulation and Process Modeling
- California Journal of Operations Management
- Winter Simulation Conference Proceedings