

Pandu R. Tadikamalla

5501 Phillips Avenue
Pittsburgh, PA 15217
Phone (412) 607-6468

Katz Graduate School of Business
University of Pittsburgh
Pittsburgh, PA 15260
Phone (412) 648-1596
Fax (412) 648-1693
E-Mail: pandu@pitt.edu

Present Position

Sept., 1992 - Present: Professor of Business
Administration, J. M. Katz Graduate School of Business
University of Pittsburgh, Pittsburgh, PA 15260

Previous Positions

Sept. 1982 - Aug. 1992: Associate Professor of Business
Administration, J. M. Katz Graduate School of Business
University of Pittsburgh, Pittsburgh, PA 15260

Sept. 1978 - Aug. 1982: Assistant Professor of Business
Administration, J.M. Katz Graduate School of Business
University of Pittsburgh, Pittsburgh, PA 15260

Aug. 1977 - Aug. 1978: Assistant Professor, Department
of Business Administration, Eastern Kentucky University
Richmond, KY

Aug. 1975 - July 1977: Assistant Professor, Computer and
Management Science Department, Arkansas Tech University
Russellville, AK

Areas of Interest

Operations Research, Management Science, Applied Statistics,
Simulation, Operations Management, Six Sigma/ Statistical Quality
Control

Education

Ph. D. Industrial and Management Engineering, The University of Iowa
July 1975

M.S. Industrial and Management Engineering, The University of Iowa,
December 1972

B.E. Mechanical Engineering, Andhra University, Kakinada, India, 1969.
First Class with Distinction; Government of India National Merit
Scholarship.

Professional activities and Honors

Associate Editor, OMEGA: The International Journal of Management Science, (2008-2012)

Editorial Review Board Member, American Journal of the Mathematical and Management Sciences, (1980-2005)

U. S. Editor, Statistical Theory and Method Abstracts, 1980-1992

Listed in the 1980 edition of Who's Who in Technology Today

Refereed articles for, Operations Research, Management Science, IIE Transactions, The American Statistician, Naval Research Logistics Quarterly, Technometrics, Comm. ACM, IEEE Transactions on Reliability, European Journal of Operational Research

Staff contributor for Computing Reviews, Industrial Quality Control (1980-1984)

Member of The Institute of Management Sciences, American Statistical Association and American Society for Quality Control

MBA Student Projects

MBA Student project, "Dlubak Corporation—ISO 9000 Compliance" 2008-2009.

MBA Student Project, "Glaxo SmithKline Corporation---Development of an Inventory management System", 2004-2005 , 2005-2006 and 2006-2007.

MBA Student Project, "A Standard Product Cost System," Calgon Carbon Corporation, 1996-1997

MBA Student Project, "A Production Planning System for the Manufacturing Operations of the Specialty Metals Division of the Westinghouse Electric Corporation," Westinghouse, 1988-1989

MBA Student Project, "Resource Distribution and Utilization System for Financial Planning," Westinghouse Electric Corporation, 1987-1988

MBA Student Project, "A Computer-Based System for Optimal Personnel Scheduling," Westinghouse Electric Corporation, 1986-1987

Consulting Projects

Calgon Carbon Corporation - Production Scheduling in the Multi-product Multi-machine Environment with setups

Westinghouse Electric Corporation - Selection of Sure Service Terminal

PPG Industries - Simulation of Silica Products Manufacturing Facility

Weirton Steel Corporation - Risk Analysis in Major Equipment Installation
Projects Blast Furnace Strategic Study - Alternative Evaluation

Koppers Company - Does Product meet its Long-Term Warranty?
Statistical Quality Control Approach

Concast Metals Company - A Classical Blending Problem for Determining
Optimal Raw Material Mix

II-VI, Inc. - Employee Training in Statistical Process Control

Teaching

Taught a variety of Operations Management, Management Science, Statistics courses, including: Operations Management, Total Quality Management, Operations Research I, Operations Research II, Systems Simulation, Engineering Statistics, Probability and Statistics I & II, Regression Analysis and Statistical Quality Control.

New Course Development

Developed and taught MBA electives and Ph.D courses in Simulation , Total Quality Management, and Six Sigma and Statistical process Control.

Awards

Received the "DISTINGUISHED PROFESSOR of the year" Award from Executive MBA Class Of 2012.

Received the "OUTSTANDING PROFESSOR of the year" of the year award from the MBA class of 1986 in recognition of teaching excellence.

Received the "DISTINGUISHED PROFESSOR" Award from Executive MBA Class (1979-1980) for "excellence and dedication to teaching."

Innovative teaching

- Through MBA project courses, solved large scale real-life problems for Calgon Carbon, Westinghouse, LTV Steel and PPG Industries
- Developed a Computer Aided Instruction Software package for problem solving in Probability and Statistics

Executive Teaching

- Taught in the MBA essentials program
- Taught in the Copperweld Executive Management Program
- Taught in the Samsung Electronics Executive Management Program
- Taught regularly in the Executive MBA Program since 1978
- Taught in the Management Program for Executives (MPE)
- Taught in the Executive Program for Expanding Companies (EPEC).

PUBLICATIONS

Books/Monographs/Chapters in books

1. Elements of Applied Simulation, Thomson -Brooks/Cole. 2003 (with A. Seila and Ceric), ISBN 0-534-38159-6
2. "Computer Simulation of Order Statistics," in Order Statistics (1998) (Invited paper) (with N. Balakrishnan)
3. "Computer Simulations," Chapter 33 in Exponential Distributions (with A. Balakrishnan), 1995, Gordon and Breach Publishers
4. "Translated Families of (Logistic) Distributions," Chapter 8 in The Logistic Distribution (ed. by N. Balakrishnan), Springer Verlag, 1991. (with N. L. Johnson)
5. Modern Statistical Methods in Simulation. The American Science Press, 1985 (Editor of a special issue for the American Journal of Mathematical and Management Sciences)

Refereed Journal Articles

1. The Impact of Knowledge on Online Brand Success:An Agent-Based Model for Online Market Share Enhancement (with Jiang Guoyin and Shang J). European Journal of Operational Research July 2015, (Accepted for publication)
2. Minimizing the weighted sum of makespan and total completion time in two-machine flow shop scheduling with time-dependent deteriorating jobs. (With Cheng M; Shang, J; and Zhang B). Journal of the Operational Research Society, 2015, 66, pp 709-719
3. "Single machine scheduling problems with exponentially time-dependent learning effects". (with Cheng M, Shang J, and Zhang B). Journal of Manufacturing Systems, 2015 Vol. 34, pp 60-65.
4. "Hedging Customer Risk" (with Christopher Groening, Pinar Yildirim and Vikas Mittal), Customer Needs and Solutions, 2014, Vol. 1, pp 105-116.
5. "Bicriteria hierarchical optimization of two-machine flow shop scheduling problem with time-dependent deteriorating jobs" (with Cheng M, Shang J and Zhang S), European Journal of Operational Research, May 2014, Vol. 234, pp650-657.
6. "Selection of a Third- Party Logistics Provider: Capturing the Introduction and Influence of Performance Metrics with the Analytical Network Process" (with Orrin Cooper and Jen Shang), Journal of Multi Criteria Decision Analysis, May-Aug 2012 , vol. 19, pp115-128.
7. " Distribution Network Redesign for Marketing Competitiveness" (with Jen Shang, T.P. Yildirim, V. Mittal and Larry Brown), Journal of Marketing, 2009, Vol. 73, pp 146-163
8. " A Decision Support System for Managing Inventory at GlaxoSmithKline" (with Jen Shang,

- Laurie Kirsch and Lawrence Brown), Decision Support Systems , 2008, Vol. 46, pp 1-13
9. “ An Improved Range Chart for Normal and Long-Tailed Symmetrical Distributions” (with M. Banciu, D. Popescu), Naval Research Logistics, 2008, pp 91-99
 10. “Kurtosis Correction method for X-bar and R control charts for long-tailed Symmetrical Distributions”, (with Dana Popescu), Naval Research Logistics, 2007, pp. 371- 383
 11. “Order Splitting in Single Sourcing with Scheduled- Release Orders” (with Ajay Mishra), Journal Of the Operational Research Society, 2006, Vol. 57, pp. 177-189
 12. “Dual Emphasis and the Long-Term Financial Impact of Customer satisfaction “ (with Mittal, Anderson and Sayrak), Marketing Science, Fall 2005, pp. 544-555
 13. “Customization: Impact on Product and Process Performance” (with Kekre et al, Production and Operations Management, Winter 2005, Vol. 14, pp 388-399
 14. “Operational Design of a Supply Chain System: a Simulation and Optimization Approach” (with Shang and Li), International Journal of Production Research, Vol. 42, September 2004, pp. 3823-3849
 15. “Modeling Financial Series Distributions: A Versatile data fitting Approach” (with Shang), International Journal of Theoretical and Applied Finance, Vol 7, May 2004, pp. 231- 251
 16. “Statistical Models (Non-Optimization Models) “ in Encyclopedia for Information Technology (with Alexandra Durcikova) Academic Press, Vol 4, 2003, pp227-241
 17. "Production Scheduling on Parallel Machines: A Case study," Omega: The Int'l. Journal of Management Science, Vol. 26, 1998 (pp 63-73). (With Hegde et al.)
 18. "Multicriteria Design and Control of a Cellular Manufacturing System Through Simulation and Optimization," Int'l. Journal of Production Research, Vol. 36, 1998 (pp 1515-1520). (with Jen Shang)
 19. "A Comparison of Some Stochastic Models of Interpurchase Intervals and of Aggregate Purchase Incidence," American Journal of Math and Management Sciences, 1997, 17, 299-328. (with R. Grover)
 20. "The Analytic Hierarchy Process in an uncertain Environment: A Simulation Approach," European Journal of Operations Research, (1996), 91, 27-37. (With D. Hauser)
 21. "The Confusion over Six-Sigma Quality," Quality Progress, Nov. 94, 27, 83-86
 22. "Tables to Facilitate Fitting Tadikamalla-Johnson's L_B Distributions: End Points Known," Communications in Statistics: Simulation and Computation, (with N. L. Johnson), 1994, 23, pp569-582

23. "Robustness of the Negative Binomial Distribution to Model Purchase Incidence," 1993, 22, Communications in Statistics: Simulation and Computation, (with B.P.S. Murthi and K. Srinivasan)
24. "The Use of Stochastic Simulation in Knowledge-Based Systems," Decision Sciences, Nov.-Dec.-1992, (with S. Raghunathan)
25. "Output Maximization of a CIM System: Simulation and Statistical Approach," International Journal of Production Research, 1993, 31, 19-41 (with Jen S. Shang)
26. "An Integrated Approach for Production Planning - A Case Study," OMEGA: The International Journal of Management Science, 1991, 19, 413-419, (with G. G. Hegde and J.S. Shang)
27. "Tables to Facilitate Fitting Tadikamalla-Johnson's L_B Distributions," Communications in Statistics: Simulation and Computation, 1991, 19, 1201-1231. (With N. L. Johnson)
28. "Interactive Workforce Management on a PC: An Industry University Partnership," European Journal of Operational Research, 1990, 45, 275-280, (with G. G. Hegde)
29. "Site Selection for a Sure Service Terminal," European Journal of Operational Research, 1990, 48, 77-80, (with G. G. Hegde)
30. "Kolmogorov-Smirnov Type Test-Statistics for the Gamma, Erlang-2 and the Inverse Gaussian Distributions when the Parameters are Unknown," Communications in Statistics, Simulation and Computation, 1990, 19, 305-314
31. "Modeling and Generating Stochastic Inputs for Simulation Studies," American Journal of Mathematical and Management Sciences, 1985, 5 203-225
32. "A Comparison of Several Approximations to the Lead Time Demand Distribution," OMEGA: The International Journal of Management Sciences, 1984, 12, 575-581
33. "Systems of Frequency Curves Generated by the Transformations of Logistic Variable," Biometrika, 1982, 69, 461-465 (with N. L. Johnson)
34. "Tables to Facilitate Fitting L_U Distributions," Communications in Statistics B, 1982, 11, 249-271, (with N. L. Johnson)
35. "The Inverse Gaussian Approximation to the Lead Time Demand," International Journal of Production Research, 1981, 19, 213-270
36. "A Complete Guide to Gamma Variate Generation," American Journal of Mathematical and Management Sciences, 1981, 1, 213-236 (with M. E. Johnson). (Also reprinted in Modern

Design and Analysis of Discrete-Event-Computer Simulations, 1985, E. J. Dudewicz and Z.A. Karian (Editors), IEEE Computer Society, Los Angeles, CA.)

37. "On a Family of Distributions Obtained by the Transformation of the Gamma Distribution," Journal of Statistical Computation and Simulation, 1981
38. "Random Sampling from the Exponential Power Distribution," Journal of the American Statistical Association 1980, 75, 683-686
39. "On Generating Non-Normal Distributions," Psychometrika, 1980, 45, 273-279
40. "A Look at the Burr and Related Distributions," International Statistical Review, 1980, pp337-344
41. "Age Replacement Policies for Weibull Failure Times," IEE Transactions on Reliability, April 1980, 88-90
42. "Computer Methods for Sampling from the Generalized Gamma Distributions," Computing, 1979, 23, 199-203
43. "A Probability Distribution and Its Uses in Fitting Data," Technometrics, 1979, 21, 201-214 (with E. Dudewicz, F. Mykytka and J. S. Ramberg). (Also reprinted in Modern Design and Analysis of Discrete-Event-Computer Simulations, 1985, E. J. Dudewicz and Z.A. Karian (Editors), IEEE Computer Society, Los Angeles, CA.)
44. "A Lognormal Approximation to the Lead Time Demand," OMEGA: The International Journal of Management Science, 1979, 7, 553-556
45. "An Inspection Policy for the Gamma Failure Distributions," Journal of the Operational Research Society, 1979, 30, 1, 77-80
46. "Computer Generation of Gamma Random Variables," Communications of the ACM, 1978, 21, 419-422
47. "Computer Generation of Gamma Random Variables-II," Communications of the ACM, 1978, 21, 925-928
48. "An Approximation to the Moments and Percentiles of Gamma Order Statistics," Sankhya, B., 1978, 39, 4, 372-381
49. "On the Generation of Subsets of Order Statistics," Journal of Statistical Computation and Simulation, 1978, 6, 239-241 (with J. S. Ramberg)
50. "Applications of the Weibull Distribution in Inventory Control," Journal of the Operational Research Society, 1978, 29, 77-82
51. "An EOQ Model for Items with Gamma Distributed Deterioration," AIIE Transactions,

1978, 10, 100-103

52. "An Optimal Inventory Solution for Weibull Demand Distributions," Computers and Operations Research, 1977, 4, 173-179
53. "An Approximate Method for Generating Gamma and Other Variates," Journal of Statistical Computation and Simulation, 1975, 3, 275-282 (with J. S. Ramberg)
54. "An Algorithm for Generating Gamma Variates Based on the Weibull Distribution," AIEE Transactions, 1974, 6, 257-260, (with J. S. Ramberg)
55. "Constructing Orthogonal Polynomials when the Independent Variable is Unequally Spaced," Journal of Quality Technology, 1974-6, 113-115

Conference Proceeding (Refereed)/Miscellaneous publications

1. "Analysis of Input Data for Simulation," Proceedings of the First International Conference on Advanced Simulation Methodology, Tokyo, Japan, Aug. 1995 (with A. Mishra)
2. "Quality, Productivity and Aggressive Position," Competing, Jan. 1990, 8-9
3. "Yield Analysis of an Automated Printed Circuit Board Assembly Line," Proceedings of the Third ORSA/TIMS Conference on Flexible Manufacturing Systems: Operations Research Models and Applications, edited by K. E. Stecke and R. Suri, Elsevier Science Publishers ,B. V. Amsterdam, 1989, 293-298 (with Jen Shang)
4. "Capacity Choice, Work-In-Progress Inventory and Throughput: A Simulation Study," Proceedings of the 1988 Winter Simulation Conference, eds. M. A. Abrams, P. L. Haugh, J.C. Comfort, 662-665 (with G. G. Hegde, S. Kekre and K.Rama Murthy)
5. "Modern Statistical Methods in Simulation," Editorial, American Journal of Mathematical and Management Sciences, 1985, 199-202
6. "Sampling from the Weibull and Gamma Distributions in GPSS," Proceedings of the 1977 Winter Simulation Conference also in Simuletter, 1977 9, 39-45 (with T. Schriber)
7. "A Distribution for Data Fitting and Simulation," Annual Technical Conference Transactions of the ASQC, 1974, 28, 407-418, (with J. S. Ramberg, Ed Dudewicz and F.Mykytka)
8. "A Survey of Computer Methods for Sampling from the Gamma Distribution," Proceedings of the 1978 Winter Simulation Conference, Dec. 1978, 130-134 (with Mark E Johnson)
9. "Simple Rejection Methods for Sampling from the Normal Distributions," Proceedings of the First International Conference on Mathematical Modeling, 1977, 573-578
10. "Simple Rejection Methods for Sampling from the Normal Distribution II," Proceedings of the 1978 Decision Science Institute Conference, Oct.-Nov. 1978, 290-291

Working Papers /Submitted for Publication

1. “The Impact of Knowledge on Online Brand Success: An Agent Based Model for Online Market-Share Enhancement”, (with Jiang G, Shang J, and Zhao L) Revise and Submit, European Journal of Operational Research.
2. Credit-risk comprehensive evaluation based on a dynamic incentive characteristic model and its applications (with Zhang F and Shang J). Submitted to European Journal of Operational Research.
3. Revenue sharing contract for supply chain under vendor-managed inventory and strategic customers (with Cai J; Hu X; and Shang J). Submitted to Computers and Operations Research
4. Optimal Inventory Decisions for Substitutable brands under VMI (with J. Cai, Jen Shang, and G. Huang). Submitted to Journal of Operational Research Society
5. Design of Revenue Sharing Contracts for Supply Chain: vendor Managed Inventory and Strategic Customers. (with J. Cai, X, Hu, Pandu Tadikamalla and Jen. Shang). Will be submitted to International Journal of production and Economics.
6. Integrated Lead Time and Demand Risk Pooling Strategies on Total Logistics Cost (with Mahdi Maghdesian) Will be submitted to **European Journal of Operational research**.

Conferences

Presented papers, chaired sessions and served as a discussant for research papers at numerous conferences.