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Education:

PhD, Operations Research, Mathematical Economics
Northwestern University
1981

MS, Operations Research, Statistics
University of Texas at Arlington, USA
1976

B. Tech, Mechanical Engineering
Indian Institute of Technology, Madras, India
1974

Research Interests:

- Operations strategy, aligning manufacturing and service operations with marketing, lean operations, supply chain management, quality management, scaling operations, embedding of information systems within global physical operations, outsourcing and off-shoring operations and IT services
- Development of sustainable information technology industries in developing countries (such as IT hardware in Taiwan, China and S. Korea and software in India)
- US, China, India, Taiwan, S. Korea

Refereed publications

Chellappa, R., Kumar, K. R. (2005). On the Impact of Operational Costs and changing Consumer Expectations in Designing Web-based retail Stores. *Journal of Management Information Systems*, 22(1).

Chase, R. B., Kumar, K. R. (2004). Operations Consulting. *Advanced Management Consulting*.

Hadjinicola, G. C., Kumar, K. R. (2003). Platform Products: Theory and Evidence from International Practice Linking manufacturing, Marketing and Product Design. In Eliashberg, J., Chakravarty, A. (Ed.), *Managing Business Interfaces: Marketing, Engineering and Manufacturing Perspectives*

Hadjinicola, G. C., Kumar, K. R. (2002). Modeling Manufacturing and Marketing Options in International Operations. *International Journal of Production Economics*, 75, 287–304.

Gruca, T. S., Sudharshan, D., Kumar, K. R. (2002). Sibling Brands, Multiple Objectives and Response to Entry: The Case of the Marion Retail Coffee Market. *Journal of the Academy of Marketing Science*, 30(1), 59–69.

Chakravarty, A. K., Kumar, K. R. (2002). Customer Satisfaction through Design, Manufacturing and Supply Networks: Introduction to the Special Issue., 11(3).

Kumar, K. R., Lin, T. W., Zhao, S. (2002). *Comparative Analysis of Performance Metrics in a Developing Country: The Case of China* Proceedings of the International Business Conference.

Kumar, K. R. (2002). *Taiwanese IT Hardware Industry and Implications for the Indian Software Industry* Proceedings of the International Business Conference.

- Kumar, K. R., Mahlotra, A., Lee, D. (2001). Assessing Life-Cycle Environmental Impact: Methodology to Spur Design of Greener Products and Services. In J., S. (Ed.), *Greener Manufacturing and Operations: From Design to Delivery and Back* Greenleaf Publishing, Sheffield.
- Gruca, T. S., Sudharshan, D., Kumar, K. R. (2001). Marketing Mix Response to Entry in Segmented Markets. *International Journal of Research in Marketing*, 18, 53–66.
- Kumar, K. R., Loomba, A. P., Hadjinicola, G. C. (2000). Marketing-Production Coordination in Channels of Distribution. *European Journal of Operational Research*, 126(1), 189–217.
- Murthy, D. N., Kumar, K. R. (2000). Total Product Quality. *International Journal of Production Economics*, 67(3), 253–268.
- Kumar, K. R., Lee, D., Malhotra, A. (2000). *Methodology to assess the environmental impact of a product and its processes* (pp. 204–214). Proceedings of SPIE – The International Society for Optical Engineering-Conference on Environmentally Conscious Manufacturing.
- Kumar, K. R., Hadjinicola, G. C. (1999). Product Design for Global Markets. In P., S. (Ed.), *Encyclopedia of Production and Manufacturing Management* (pp. 559–567). Massachusetts: Kluwer Academic Publishers.
- Kumar, K. R., El Sawy, O. A. (1998). Extending the Boundaries of Operations Management: An International Field Studies Approach integrating Information Systems. *Production and Operations Management*, 7(2).
- El Sawy, O. A., Kumar, K. R. (1998). Making the World Your Oyster: Experiences from Teaching Information Systems Management for Global Operations. *Journal of Global Information Technology Management*.

- Hadjinicola, G. C., Kumar, K. R. (1997). Factors affecting International Product Design. *Journal of the Operational Research Society (JORS)*, 48, 1131–1143.
- Wu, C. E., Devinny, J. S., lee, D., Malhotra, A., Kumar, K. R. (1997). *Determination of attributes affecting environmental cost by a fuzzy logic system* Proceedings of the International Chinese Sustainable Development Conference.
- Devinny, J. S., Wu, C. E., Kumar, K. R., Malhotra, A., Lee, D. (1997). Proceedings of the National Science Foundation Manufacturing and Design Grantees Conferences.
- Lin, T. W., Dessouky, M. M., Kumar, K. R. (1996). A Heuristic-Based Procedure for the Weighted Production Cell Formation Problems. *IIE Transactions*, 28(7), 579–589.
- Kumar, K. R., Hadjinicola, G. C. (1996). Resource Allocation to Defensive Marketing and Manufacturing Strategies. *European Journal of Operational Research*, 94, 453–466.
- Hadjinicola, G. C., Kumar, K. R. (1996). *Marketing and Production Strategies for International Enterprises* Proceedings of the Manufacturing and Service Operations Management Conference, Amos Tuck School of Business Administration, Dartmouth, Hanover.
- Kumar, K. R., Hadjinicola, G. C., Lin, T. W. (1995). A Heuristic Procedure for the Single-row Facility Layout Problem. *European Journal of Operational Research*, 84, 65–73.
- Sudharshan, D., Kumar, K. R., Gruca, T. (1995). NICHER: An Approach to Identifying Defensible Product Positions. *European Journal of Operational Research*, 84, 292–309.
- Loomba, A. P., Kumar, K. R. (1995). Warranty and Product Distribution. In Blishchke, W., Murthy, D. (Ed.), *Product Warranty Handbook* New York, NY: Marcel Dekker Inc..

- Rajagopalan, S., Kumar, K. R. (1994). Retail stocking decisions with Order and Stock Sales. *Journal of Operations Management*.
- Loomba, A. S., Kumar, K. R. (1994). *Organizational Innovation Process: A Conceptual Framework* Proceedings of the Annual Meeting of the Decision Sciences Institute.
- Hadjinicola, G. C., Kumar, K. R. (1994). *Manufacturing and Product Policies for International Enterprises* Proceedings of the Symposium on Globalization of Technology, Manufacturing and Service Operations.
- Kumar, K. R., Hadjinicola, G. C. (1993). Cellular Manufacturing at Champion Irrigation Products. *International Journal of Production and Operations Management*, 13(9), 53–61.
- Kumar, K. R. (1993). From Mass Production to Mass Customization and Beyond. In Burns, E. (Ed.), *Automated Fabrication—Improving Productivity in Manufacturing* (pp. 301–308). Prentice Hall.
- , (1993). Service Based Manufacturing: The Service Inventory. *Operations Management Review*, 10(1), 34–45.
- Hadjinicola, G. C., Kumar, K. R. (1993). *Pricing Policy and Profitability of Multinational and Global Corporations* Proceedings of the Symposium on Globalization of Operations Management.
- Gruca, T. C., Kumar, K. R., Sudharshan, D. (1992). An Equilibrium Analysis of Defensive Response to Entry with Coupled Response Functions. *Marketing Science*, 11(4), 348–358.
- Kumar, K. R., Hadjinicola, G. C. (1992). *Transition Toward Cellular Manufacturing: The Process and Its Impact on a Company's Practices* (pp. 345–348). Proceedings of the First IIE Research Conference.

- Chase, R. B., Kumar, K. R., Youngdahl, W. (1992). Service Based Manufacturing: The Service Factory. *Production and Operations Management*, 1(2), 175–184.
- Udwadia, F., Kumar, K. R. (1991). Impact of Customer Co-Construction in Product/Service Markets. *Technological Forecasting and Social Change*, 40, 261–272.
- Kumar, K. R., Thomas, H., Fiegenbaum, A. (1990). Strategic Groupings as Competitive Benchmarks for Formulating Future Competitive Strategy: A Modeling Approach. *Managerial and Decision Economics*, 11, 99–109.
- Kroll, D. E., Kumar, K. R. (1989). The Incorporation of Learning in Production Planning Models. *Annals of Operations Research*, 17, 291–304.
- Kumar, K. R., Sudharshan, S. (1988). Defensive Marketing Strategies: Equilibrium Analysis based on De-coupled Response Function Models. *Management Science*, 34(7), 805–815.
- Kumar, K. R. (1988). *Feedback Control Theory Approach for Scheduling Flexible Manufacturing Systems* (vol. 49, pp. 361–376). Proceedings of the NATO Advanced Science Institute on CIM: Current Status and Challenges, NATO ASI Series.
- Vannelli, A., Kumar, K. R. (1988). *Minimal Bottleneck Cell Approach for Generating Part-Machine Families in Cellular Manufacturing* (vol. 49, pp. 398–414). Proceedings of the NATO Advanced Science Institute on CIM: Current Status and Challenges, NATO ASI Series.
- Sudharshan, D., Kumar, K. R. (1988). Pre-emptive Product Positioning Under Market Share Restrictions. *Managerial and Decision Economics*, 93–99.

- Gruca, T., Kumar, K. R., Sudharshan, D. (1988). *Product Positioning Strategies for Segment Preemption*
- Kumar, K. R., Kroll, D. E. (1987). Dynamic Network Modelling of an FMS. In Kusiak, A. (Ed.), *Modern Production Management Systems* Elsevier Science Publishers B.V..
- Gross, J. R., Kumar, K. R. (1987). Intelligent Feedback Control for Computer Integrated Manufacturing. In Kusiak, A. (Ed.), *Artificial Intelligence: Its Impact for Computer Integrated Manufacturing Systems* IFS Publication/Springer Verlag.
- Sudharshan, D., Kumar, K. R. (1987). *Multiple Brand Synergy and Market Structure* (pp. 145–150). Proceedings of the American Marketing Association Educators' Summer Conference.
- Kumar, K. R., Vannelli, A. (1987). Strategic Subcontracting for Efficient Dis-aggregated Manufacturing. *International Journal of Production Research*, 25(4), 1715–1728.
- , (1987). The Relationship between Mixed Strategies and Strategic Groups. *Managerial and Decision Economics*, 8, 235–242.
- Kumar, K. R., Kroll, D. E. (1987). Dynamic Network Modelling of Flexible Manufacturing Systems. *Proceedings of the Third International Conference on Advances in Production Management Systems*.
- Gross, J. R., Kumar, K. R. (1987). *Intelligent Control of Flexible Manufacturing Systems* Proceedings of the IXth International Conference on Production Research (ICPR).
- Kusiak, A., Vannelli, A., Kumar, K. R. (1986). Clustering Analysis: Models and Algorithms. *Control and Cybernetics*(2).
- Kumar, K. R., Kusiak, A., Vannelli, A. (1986). Grouping of Parts and Components in Flexible Manufacturing Systems. *European Journal of Operational Research*, 24(3), 387–397.

- Vannelli, A., Kumar, K. R. (1986). Method for Finding Minimal Bottleneck Cells for Grouping Part–Machine Families. *International Journal of Production Research*, 24(2), 387–397.
- Kumar, K. R., Vannelli, A. (1986). *Design of Flexible Production Systems: Capacity Balancing and Subcontracting Strategies* Proceedings of the Second ORSA/TIMS Special Conference on Flexible Manufacturing Systems.
- Kusiak, A., Vannelli, A., Kumar, K. R. (1985). Efficient Algorithms for Grouping Parts–Machines in Flexible Manufacturing Systems. *Robotica*, 3, 245–252.
- Kumar, K. R., Satterwaite, M. A. (1985). Monopolistic Competition, Aggregation of Competitive. *Journal of Economic Theory*, 37(1), 32–54.
- Minch, N. S., Kumar, K. R. (1985). Robot Justification and Evaluation using Lotus–123. *Production and Inventory Management Review*, 5(7), 40–46.
- Kumar, K. R., Thomas, H. (1984). Mapping the Fields of Operations Management. In Vernon, K. (Ed.), *Information Sources in Management and Business* (pp. 301–316). Butterworths:
- , (1983). An Interactive Graphics Scheduling System for the Job–Shop Problem. *Journal of Management Science and Applied Cybernetics*, 12(1).
- Kumar, K. R., Pape, E. S. (1978). Selecting a Test Level for Random Effects. *Communication in Statistics*, 7(7).

Working Papers

- Kumar, K. R., D. Lee (Inha University), On Proactive and Uniform Environmental Operations Strategy in Multinational Corporations. *Decision Science*.

Gong, J., Kumar, K. R., Lin, T. W., Zhao, S. An Exploratory Inter-Industry Study of Competitive Strategy, Manufacturing Strategy, and Performance Measures in Chinese Firms. *International Business Review*.

Kumar, K. R., Lin, T. E., Gong, J., Zhao, S. (2004). *An Exploratory Study of Competitive Strategy, Manufacturing Strategy, and Performance Measurement Systems in China* Fourth Asia Pacific Interdisciplinary Research in Accounting (APIRA) in Singapore.

Kumar, K. R., Kroll, D. E. (1987). *Dynamic Network Modelling of Flexible Manufacturing Systems* Proceedings of the Third International Conference on Advances in Production Management Systems.

Awards and Honors

Member, Omega Rho (International Operations Research Honor Society).

Member, Sigma Xi (Scientific Research Honor Society).

Member, Tau Beta Pi (National Engineering Honor Society).

Teaching

Golden Apple Award, USC Marshall School.

Customer Service Teaching Award, MSMIE Program, USC Marshall School.

Outstanding Educator Award, University of Illinois MBA Association.

Outstanding Educator Award, University of Illinois MBA Association.

Service, Professional

Invited Member, Special Faculty Panel, University of Cyprus.

Keynote Speaker, Operations Management Association Conference.

Service, University

Nomination for Fellow, USC Center for Excellence in Teaching,
Deputy Dean and Chair, USC Marshall School.

Certificate of Appreciation, IS/OM Club, USC Marshall.

Plaque of Appreciation, Distribution Management Program, USC
Marshall School.

Certificate of Appreciation, IBEAR Program, USC Marshall School.

Research

Dean's Research Fellowship, USC Marshall School.

Cabell Fellowship, Northwestern University.

Walter P. Murphy Fellowship, Northwestern University.

Service, Community

Member of Board, Goodwill Industries, Southern California.

Invited Member, Substantive Change Committee, Western
Association of Schools and Colleges.

Invited Member, Special Interest Group, Information Technology
Hardware, Ministry of Information Technology, Government of
India.

Plaque of Appreciation, Asian Professional Exchange APEX.