

October 2020

**GENARO J. GUTIERREZ**  
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### **TEACHING AND RESEARCH INTERESTS:**

General interest in leveraging business analytics for improving performance in supply chain management, and in management of procurement and distribution of market traded commodities.

### **EDUCATION:**

<b>STANFORD UNIVERSITY</b>	Stanford California
Ph.D. in Industrial Engineering (August 1988).	
<b>STANFORD UNIVERSITY</b>	Stanford California
M.Sc. in Industrial Engineering (June 1983).	
<b>ITESM</b>	Monterrey N.L., Mexico
Ingeniero Industrial y de Sistemas (June 1978).	

### **ACADEMIC EXPERIENCE**

	<b>THE UNIVERSITY OF TEXAS AT AUSTIN</b>
1988-Date	<b>Information Risk and Operations Management Department.</b>
	Austin, Texas
	<b>Associate Professor</b>

### **PROFESSIONAL RECOGNITIONS:**

Finalist (Contending) for the 2020 Daniel H. Wagner Prize for Excellence in the Practice of Advanced Analytics and Operations Research for “A Theory-Driven Practical Approach to Integrate R&D and Production Planning for Portfolio Management in Agribusiness,” INFORMS, Nov. 2020

Finalist Award for the 2016 Production and Operations Management Society Applied Research Challenge for “Quantifying Uncertainties Using Expert Assessments in a Dynamic New Product Development Environment” POMS 27th Annual Conference, Orlando FL, May 2016

Finalist (runner-up) for the 2015 Practice Award for “Expert Calibration and Elicitation for Large Scale Investment Decisions,” The Decision Analysis Society of INFORMS, Nov. 2015

## REFEREED PUBLICATIONS:

- Bansal, S., and G. Gutierrez, "Estimating Uncertainties Using Judgmental Forecasts with Expert Heterogeneity," Operations Research, Vol 68, No. 2, March-April 2020, pp 363—380
- Bansal S., G. Gutierrez and J. Keiser "Using Experts' Noisy Quantile Judgments to Quantify Risks: Theory and Application to Agribusiness," Operations Research, Vol. 65, No. 5, September-October 2017, pp. 1115—1130
- Bansal S., G. Gutierrez and J. Keiser "Quantifying Uncertainties and Risks Using Managerial Judgments in a Dynamic New Product Development Environment," Production and Operations Management, Vol. 25, No. 12, December 2016, pp. 2010—2013
- Goel, A., and G. Gutierrez, "Multiechelon Procurement and Distribution Policies for Traded Commodities," Management Science, Vol. 57, No. 12, December 2012, pp. 2228-2244
- Gutierrez, G., and X. He, "Life-Cycle Channel Coordination Issues in Launching an Innovative Durable Product," Production and Operations Management, Vol. 20, No. 2, March-April 2011, pp. 268-279
- Rao, R., and G. Gutierrez, "Shareholders' Wealth-Maximizing Operating Decisions and Risk Management Practices in a Mixed Contracts Economy," Production and Operations Management, Vol. 19, No. 4, July-August 2010, pp. 418-433
- X. He, Prasad, A., Sethi, S., and G.J. Gutierrez, "A Survey of Stackelberg Differential Game Models in Supply and Marketing Channels," Journal of Systems Science and Systems Engineering, 16(4), December 2007
- A. Paul, and Gutiérrez, G.J., "Simple Probability Models For Project Contracting," European Journal of Operational Research, Vol. 165, Issue 2, September 2005.
- A. Paul, and Gutiérrez, G.J., "Mean Sample Spacings, Sample Size and Variability in an Auction-Theoretic Framework," Operations Research Letters, Vol. 32, No. 2, March 2004.
- Gutiérrez, G.J. and Paul A., "Robustness to Variability in Project Networks," IIE Transactions, **33**(8): 649-660, August 2001.
- Gutiérrez, G.J. and Paul, A. "Analysis of the Effects of Uncertainty, Risk-pooling and Subcontracting Mechanisms on Project

Performance," Operations Research, Vol. 48, No. 6, November-December 2000.

- Chaing, C. and G.J. Gutiérrez, "Optimal Control Policies for a Periodic Review Inventory System with Emergency Orders," Naval Research Logistics, Vol. 45, 2, 1998
- Kouvelis, P. and G.J. Gutiérrez, "The Newsvendor Problem in a Global Market: Optimal Decentralized & Centralized Control Policies for a Multinational Stochastic Inventory System," Management Science, Vol. 43, 5, May 1997.
- Gutiérrez, G.J., P. Kouvelis, and A. Kurawarwala, "A Robustness Approach to Uncapacitated Network Design Problems," European Journal of Operational Research, Vol. 94, Oct. 1996
- Chiang, C. and G.J. Gutiérrez, "A Periodic Review Inventory Control System with Two Supply Modes," European Journal of Operational Research, 94, (1996), pp. 527-547.
- Gutiérrez, G.J., W.H. Hausman, and H.L. Lee, "Dynamic Control of Imperfect Component Production For Assembly Operations," IIE Transactions, Vol. 27, (1995), pp. 669-678.
- Gutiérrez G.J. and P. Kouvelis, "A Robustness Approach to International Sourcing," Annals of OR, (59), (1995), pp. 165-193.
- Bagchi U. and G.J. Gutiérrez, "Effect of Increasing Commonality on Service Level and Holding Cost," Naval Research Logistics, Vol. 39, No. 6, October 1992, pp. 815-832.
- Kouvelis, P., A. Kurawarwala, and G.J. Gutiérrez, "Algorithms For Robust Single and Multiple Period Layout Planning for Manufacturing Systems," European Journal of Operational Research, V63, N2, December 1992.
- Kouvelis P., G. Gutiérrez, and W.H. Chiang, "Heuristic Approaches For Unidirectional Flowpath Design of Automated Guided Vehicle Systems," International Journal of Production Research, Vol. 30, No. 6, 1992, pp. 1327-1351
- Chiang, W., G. Gutiérrez and P. Kouvelis, "Simulated Annealing and Tabu Search Approaches to Design Problems: An application to the unidirectional flowpath design of automated guided vehicle systems (AGVS)," Ch. 26 in A. Kusiak, (Ed.), Intelligent Design and Manufacturing, Wiley, 1992

- Gutiérrez, G.J., and P. Kouvelis, "Parkinson's Law And Its Implications For Project Management," Management Science, Vol. 37, No. 8, August 1991, pp. 990-1001.
- Lee, H.L., W. Hausman, and G. Gutiérrez, "Optimal Machine Settings Of Imperfect Component Production Processes For Assembly Operations," IEEE Journal of Robotics and Automation, 6, 6, 1990, pp. 652-658.

#### **SUBMITTED WORKING PAPERS:**

- Bansal, S., G. Gutierrez, and M. Nagarajan, "A Theory-driven Practical Approach to Integrate R&D and Production Planning for Portfolio Management in Agribusiness," Under review in INFORMS Journal on Applied Analytics (formerly Interfaces).
- Barua, A., G. Gutierrez, and C. Yoo, "Strategic Complementarities in an Online Advertising Supply Chain," Under review in JOM.
- Wang T. and G. Gutierrez, "Protecting the Downside While Minding the Upside: Comparing Robustness Approaches in a Product Line Design Problem," Under review (third round) in POMS.

#### **INVITED AND REFEREED RESEARCH PRESENTATIONS:**

- "Estimation of Synergies and Analysis of Contracts in an Online Advertising Supply Chain," Presented at the Olin School of Business (Washington University in St. Louis) on Nov. 2, 2018
- "Horizontal Channel Complementarities in a Vertically Segmented Online Advertising Supply Chain," Presented on the International POMS meeting, Tel-Aviv, June 29, 2017
- Invited Discussant for "A Cournot-Stackelberg Model of Supply Contracts with Financial Hedging" by M. Haugh at the Supply Chain Finance & Risk Management Conference, Washington University in St. Louis, May, 2016
- "Analytical and Empirical Modeling of Complementarities in a Digital Advertising Supply Chain," Presented on the SCECR annual Conference, Naxos Greece, June, 2016
- "Expert Calibration and Elicitation for Large Scale Investment Decisions," Presented at the Decision Analysis Society practice session of INFORMS, Philadelphia, Nov. 2015

- Invited Discussant for “Dynamic Financial Hedging Strategies for a Storable Commodity with Demand Uncertainty” by P. Kouvelis and Q Ding, at the Special Interest Group Meeting on Supply Chain Management/Finance Interface on the MSOM Meeting at INSEAD on July 28, 2013.
- “An Integrated Approach to Commodity Risk Management,” presented at the Third Annual Symposium on Supply Chain and Finance at Eindhoven University of Technology on June 13, 2013.
- “Managing Operational Cost Trade-Offs and Price Risk in the Procurement and Processing of Exchange-Traded Commodities,” presented at the Smeal College of Business, Penn State University, November 9, 2012.
- “Benchmarking Commodity Price Models for Real-Time Physical Sale and Procurement of Exchange-Traded Commodities,” presented at a research seminar at Olin School of Business, Washington University at Saint Louis, April 6, 2012.
- “Benchmarking Commodity Price Models for Real-Time Physical Sale and Procurement of Exchange-Traded Commodities,” presented at The Supply Chain and Finance 2nd Annual Symposium, MIT-Zaragoza Logistics Center, Zaragoza, Spain, May 25, 2012.
- “Effect of Term Structure of Futures Price on Spot Procurement Policies,” presented at the Sixth Mini-Conference on Integrated Risk Management in Operations and Global Supply Chains, Whitman School of Management, Syracuse University, August, 2010
- “Wealth-Creation Through Risk Management: A Framework to Rationalize the Operational and Risk Management Trade-Offs in the Production and Processing of Traded Commodities,” presented at Eindhoven University of Technology, April 2010.
- “Historical and Risk-Neutral Probability Measure Approaches to the Evaluation of Risk Mitigating Contracts in Supply Chains,” presented at the Fifth Mini-Conference on Integrated Risk Management in Operations and Global Supply Chains, Singapore Management University, Singapore, August, 2008
- “Shareholders’ Wealth-Maximizing Production and Operations Management Decisions in Competitive Equilibrium,” Presented at the Washington University in St. Louis, June 2007.
- “Shareholders’ Wealth-Maximizing Production and Operations Management Decisions in Competitive Equilibrium,” Presented at the Krannert School of Management of Purdue University, West Lafayette, Indiana, October 2007.
- “Shareholders’ Wealth-Maximizing Production and Operations Management Decisions in a No-Arbitrage Valuation Framework,”

Presented at the Cox School at Southern Methodist University on November 2006.

- "A Competitive Equilibrium Model to Rationalize Operations Management Practices as Strategies for Enhancing the Firm's Value," Presented at the Operations Management and Finance Workshop at CMU on August 2006.
- "Role of Market Equilibrium Information to Improve the Efficiency of Procurement and Distribution Decisions in a Two-Stage Multiple-Location Inventory System," Presented at the Operations Management and Finance Workshop at CMU on August 2006.
- "Integrating Storable Commodity Markets in Supply Chain Procurement," Presented at the Krannert School of Management at Purdue University, Sept. 2005.
- "Integrating Storable Commodity Markets in Supply Chain Procurement," presented at the University of Washington in St. Louis. June 2005
- "Integrating Commodity Markets Equilibrium Information in Supply Chain Procurement," Presented at the University of Florida on February 2005.

#### **RESEARCH PRESENTED AT CONFERENCES:**

- "Protecting the Downside While Minding the Upside: Comparing Robustness Approaches in a Product Line Design Problem," INFORMS Annual Meeting, Pohenix AZ, Nov. 5, 2018.
- "Using Expert Assessments to Estimate Parameters of Probability Distributions for Operational Decision-Making," Presented at the MSOM meeting at INSEAD on July 29, 2013.
- "Optimal and Approximate Procurement of Commodities when Due Dates are Asynchronous to the Market Contracts," Presented at EURO-INFORMS ay Rome on July 3, 2013.
- "Effect of Term Structure Model of Futures Price on Procurement Policies," presented at the INFORMS meeting in Phoenix AZ, on October 17, 2012
- "An Integrated Approach to Commodity Risk Management," presented at the INFORMS conference in Austin TX, November 2010.
- "Effect of Term Structure of Futures Price on the Spot Procurement Policies," presented at the INFORMS conference in Austin TX, November 2010.

- “Optimal Dynamic Pricing and Inventory Policies for Fashion Retailers,” presented at the INFORMS conference in San Diego CA, October 2009.
- “Effect of Term Structure of Futures Price on the Spot Procurement Policies,” presented at the MSOM conference, Boston MA, June 2009.
- “Historical and Risk-Neutral Probability Measure Approaches to the Valuation of Operations Management Decisions and Contracts,” presented at the POMS International Meeting in Tokyo, Japan, August, 2008.
- “Designing Distribution Channels to Launch an Innovative Durable Product with Complementary Services,” presented at the INFORMS Conference in Seattle, November 2007.
- “Characterization of Adaptive Optimal Procurement Policies from a Spot Market,” presented at the INFORMS Conference in Seattle, November 2007
- “Life-Cycle Channel Coordination Issues in Launching an Innovative Durable Product,” presented at the MSOM annual meeting in Tsinghua University, Beijing June. 2007.
- “Make or Buy: Impact of Information on Optimal Production/Outsourcing Policies with Limited Capacity,” presented at the MSOM annual meeting in Tsinghua University, Beijing June. 2007.
- “Comparative Analysis of Distribution Channels for Innovative Durable Goods,” Presented at the INFORMS meeting in Pittsburgh PA, November 2006.
- “Designing Supply Contracts for an Innovative Durable Product: Issues of Commitment and Coordination.” Presented at the INFORMS meeting in Pittsburgh PA, November 2006.
- “Role of Commodity Markets in the Distribution of Gasoline,” Presented at the INFORMS meeting in Pittsburgh PA, November 2006.
- “Impact of Information on Optimal Production/Outsourcing Policies with Limited Capacity,” Presented at the INFORMS meeting in Pittsburgh PA, November 2006.
- “Designing Distribution Channels to Launch an Innovative Durable Product with After-Sales Complementary Products and Services,” Presented at MSOM Conference on June 2006
- “Using Market Information to Coordinate Distribution of a Commodity in a Decentralized System.,” Presented at MSOM Conference on June 2006

- "Optimal Policy for a Two-Echelon System in Presence of Commodity Markets," Presented at the INFORMS meeting in San Francisco CA, November 2005.
- "Designing Distribution Channel for an Innovative Durable Product," Presented at the INFORMS meeting in San Francisco CA, November 2005.
- "Role of Commodity Markets in Optimal Procurement Policies." Presented at the INFORMS meeting in Denver CO, October 2004
- "Modeling Mixed Build-to-Order & Build-to-Stock Systems in the Automotive Industry" Presented at the INFORMS meeting in Miami, November 2001
- "Analysis of Work Structuring and Contracting approaches in a Project Management Context", presented at the INFORMS meeting in Philadelphia, October 1999.
- "Uncertainty and Subcontracting Mechanisms in Project Management," presented at the INFORMS meeting in Seattle, October 1998.
- "Uncertainty, Risk-Pooling & Sub-Contracting Mechanisms in Project Management," Presented at the INFORMS conference in Dallas, October 1997
- "A Robustness Approach to Manufacturing Systems Design," presented at a research colloquium at UC Irvine, April 1994.
- "A Robustness Approach to International Sourcing," presented at the TIMS/ORSA meeting at Boston MA, April 1994.
- "Location and Capacity Issues in International Manufacturing Networks," presented at the ORSA/TIMS meeting at San Francisco CA., November 1992.
- "Optimal Control Policies For A Periodic Review Inventory System With Emergency Orders," presented at the ORSA/TIMS meeting at San Francisco CA., November 1992.
- "Newsvendor Problem in a Global Market: Optimal Decentralized & Centralized Control Policies for a Two-Market Stochastic Inventory System," presented at the ORSA/TIMS meeting at Anaheim CA., November 1991.
- "Optimization of Yield in a Single-Leg Flight with N Demand Classes," presented at the TIMS/ORSA meeting in Nashville, May 1991.
- "Robust Design of a Production/Distribution Network under Uncertain Future Demand," presented at the TIMS/ORSA meeting in Nashville, May, 1991.



- "Analysis of Production Control Policies and Operating Characteristics of a Multi-Stage Manufacturing System With Random Yield," presented at the ORSA/TIMS meeting in Philadelphia, October, 1990.
- "Dynamic Control of Imperfect Component Production For Assembly Operations," presented at the TIMS/ORSA meeting in Las Vegas, May, 1990.
- "Analysis of Production Control Policies in Multi-Stage Manufacturing Systems With Random Yield," presented at the TIMS/ORSA meeting in Las Vegas, May, 1990.
- "Analysis of Measures of Service In Assembly Systems With Component Commonality," presented at the ORSA/TIMS meeting in New York, October, 1989.
- "Behavioral Modeling In Project Management: Parkinson's Law and Its Effects," co-authored with P. Kouvelis, presented at the ORSA/TIMS meeting in New York, October, 1989.
- "Analysis of Stocking Policies In a Multi-Item Assemble-To-Order System," co-authored with W. Hausman, presented at the CORS/TIMS/ORSA meeting in Vancouver, Canada, May 1989.
- "Rationing Policies In Assemble-To-Order Systems," co-authored with W. Hausman, presented at the TIMS/EURO/AFCEC international conference in Paris France, July 1988.
- "Rationing Policies In Assemble-To-Order Systems," co-authored with W. Hausman, presented at the TIMS/ORSA meeting in Washington DC., April 1988.
- "Stocking and Rationing Policies In a Multi-Item Assemble-To-Order System," co-authored with W. Hausman, presented at the ORSA/TIMS meeting in St. Louis, October 1987.
- "Stocking and Rationing Policies In a Multi-Item Assemble-To-Order System," co-authored with W. Hausman, presented at the IFORS conference in Buenos Aires Argentina, August 1987.

## **GOVERNMENT AND INDUSTRY AFFILIATIONS**

	<b>SECRETARIAT OF COMMERCE AND INDUSTRY (SECOFI)</b>	
	<b>FEDERAL GOVERNMENT OF MEXICO</b>	México, D.F.
1995	<b>Economic Deregulation Unit</b>	
	<b>MEXICAN INSTITUTE OF SOCIAL SECURITY (IMSS)</b>	
1996	<b>Finance Department</b>	
1987	<b>Charles Schwab</b>	San Francisco, CA. USA
1983	<b>Copeq S.A., GRUPO INDUSTRIAL ALFA.</b>	Monterrey N.L., Mexico
1980-1981	<b>Petrocel, S.A., GRUPO INDUSTRIAL ALFA.</b>	Monterrey N.L., Mexico
1979	<b>GRUPO INDUSTRIAL SALTILLO.</b>	Saltillo Coah., Mexico