

# ANDRÉS MUSALEM

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## Education

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UNIVERSITY OF PENNSYLVANIA, THE WHARTON SCHOOL

Ph.D. in Marketing, 2006.

M.A. in Statistics, August 2004.

Dissertation: "Bayesian Estimation of Models of Individual Behavior  
Using Aggregate Data"

Thesis Advisors: Eric T. Bradlow and Jagmohan S. Raju.

Committee Members: David R. Bell, David C. Schmittlein and Edward I.  
George.

UNIVERSITY OF CHILE

M.B.A., July 2001 (Highest Honors).

Industrial Engineer, March 1999 (Highest Honors).

B.Sc. in Industrial Engineering, December 1997.

## Academic Experience

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DUKE UNIVERSITY, FUQUA SCHOOL OF BUSINESS

Assistant Professor of Marketing, July 2006-Present.

UNIVERSITY OF CHILE, INDUSTRIAL ENGINEERING DEPARTMENT (1999-2001)

Full-time instructor.

## Research Interests

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**Bayesian Methods, Economics and Econometrics:** Bayesian econometrics, missing data problems, structural estimation, direct utility models, empirical industrial organization, stochastic dynamic programming, mathematical programming with equilibrium constraints (MPEC), game theory, signaling.

**Marketing:** retailing, promotions, marketing/operations management interface, market entry, customer relationship management, consumer response to out of stocks and waiting times, product line competition, store choice, word of mouth.

## **Articles Published in Refereed Journals**

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Arias-Bolzmann, Leopoldo, Leonard M. Lodish, Orkun Sak, Andrés Musalem, Rodrigo Baez and Luis Jose de Souza (2003): "Wine pricing: The influence of country of origin, variety and wine magazine ratings," *International Journal of Wine Marketing*, Vol. 15 (2): 47-57.

Musalem, Andrés, Eric T. Bradlow and Jagmohan S. Raju (2008), "Who's got the coupon: Estimating Consumer Preferences and Coupon Usage from Aggregate Information", *Journal of Marketing Research*, 45 (December): 715-730.

Musalem, Andrés, Eric T. Bradlow and Jagmohan S. Raju (2009), "Bayesian Estimation of Random-Coefficients Choice Models Using Aggregate Data," *Journal of Applied Econometrics*, 24 (3): 490-516.

Musalem, Andrés and Yogesh Joshi (2009), "How Much Should You Invest In Each Customer Relationship: A Competitive Strategic Approach," *Marketing Science*, 28 (3): 555-565.

Musalem, Andrés, Marcelo Olivares, Eric T. Bradlow, Christian Terwiesch and Daniel Corsten (2010), "Structural Estimation of the Effect of Out-of-Stocks," *Management Science*, 56 (7): 1180-1197.

## **Submitted Papers**

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"Measuring The effect of Waiting Time on Customer Purchases," with Marcelo Olivares, Ariel Schilkrut and Yina Lu, under second round review at *Management Science*.

"Under-promising and over-delivering: strategic implications of word of mouth," with Yogesh Joshi, under first round review at *Marketing Science*.

## **Work In Progress**

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"When Demand Projections Are Too Optimistic: A Structural Model Of Product Line And Pricing Decisions," with Woochoel Shin.

"How new entrants affect incumbent retailers' pricing policy," with Carl Mela and Huihui Wang.

"A Direct Utility Multiple-Choice-Quantity Model with Interdependent Choice Utilities: An application to the Chilean TV advertising industry," with Anita Elberse, Kenneth Wilbur and Patricio del Sol.

“An Ecological-Inference model for drawing conclusions about individuals from aggregate data,” with Wagner Kamakura.

## **Presentations and Research Seminars**

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“Customer Waiting Time and Purchasing Behavior: An Empirical Study of Supermarket Queues”  
University of North Carolina at Chapel Hill, May 2012.  
Duke University, July 2011.

“When Demand Projections Are Too Optimistic: A Structural Model Of Product Line And Pricing Decisions”  
University of Chile (Ind. Eng.), April 2010.  
London Business School (Marketing Summer Camp), July 2009.

“Structural Estimation of the Effect of Out of Stocks”:  
Stanford (GSB), May 2010.  
University of Michigan, Ann Arbor, February 2009.  
University of Chicago (GSB), June 2008.

“How much should you invest in each customer relationship: A competitive strategic approach”:  
University of Chile (Ind. Eng.), December 2007.

“Estimating Consumer Preferences and Coupon Usage from Aggregate Information”, September-November 2005:  
Cornell University  
Dartmouth College  
Duke University  
INSEAD  
Purdue University  
University of Maryland  
University of North Carolina  
University of Rochester  
University of Southern California  
University of Texas at Austin  
University of Texas at Dallas  
Washington University in St. Louis

“Estimating Models of Individual Behavior Using Aggregate Information”:  
University of Chile (Ind. Eng.), December 2004.

## **Conference Participation and Discussions (presenter in bold)**

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**Joshi, Yogesh** and Andrés Musalem (2012): “Underpromising and Overdelivering: Competitive Implications of Word of Mouth,” 2012 Frontiers of Research in Marketing Science, University of Texas at Dallas, TX.

Yina Lu, Marcelo Olivares, **Andrés Musalem** and Ariel Schilkrut (2011): “Customer Waiting Time and Purchasing Behavior: An Empirical Study of Supermarket Queues,” 2011 Workshop on Empirical Research in Operations Management, The Wharton School of the University of Pennsylvania, Philadelphia, PA.

Yina Lu, Marcelo Olivares, **Andrés Musalem** and Ariel Schilkrut (2011): “Customer Waiting Time and Purchasing Behavior: An Empirical Study of Supermarket Queues,” 2011 Marketing Science Conference, University of Houston, Houston, TX.

**Joshi, Yogesh** and Andrés Musalem (2011): “Underpromising and Overdelivering: Competitive Implications of Word of Mouth,” 2011 Marketing Science Conference, University of Houston, Houston, TX.

Mela, Carl, Andrés Musalem and **Huihui Wang** (2011): “How Wal-Mart’s Entry Affects Incumbent Retailers,” 2011 Marketing Science Conference, University of Houston, Houston, TX.

**Musalem, Andrés** and Woochoel Shin (2009): “When Demand Projections Are Too Optimistic: A Structural Model Of Product Line And Pricing Decisions,” 2009 Marketing Science Conference, University of Michigan, Ann Arbor, MI.

**Musalem, Andrés** and Woochoel Shin (2009): “When Demand Projections Are Too Optimistic: A Structural Model Of Product Line And Pricing Decisions,” VII International Industrial Organization Conference, Northeastern University, Boston, MA.

**Musalem, Andrés** (2009): Discussion of “The Impact of Initial Financial State on Firm Duration Across Entry Cohorts,” by Kim P. Huynh, Robert C. Petrunia and Marcel C. Voia, VII International Industrial Organization Conference, Northeastern University, Boston, MA.

**Musalem, Andrés** (2009): Discussion of “Shopping Cost and Brand Exploration in Online Grocery,” by Andrea Pozzi, VII International Industrial Organization Conference, Northeastern University, Boston, MA.

**Musalem, Andrés** (2008): Invited discussion of “A Simple Nonparametric Estimator for the Distribution of Random Coefficients in Discrete Choice Models,” by Patrick Bajari, Jeremy Fox, Kyoo il Kim and Stephen Ryan, VI

Quantitative Marketing and Economics Conference, New York University, New York, NY.

**Musalem, Andrés** and Wagner Kamakura (2007): "An Ecological-Inference Model for Drawing Conclusions about Individuals from Aggregate Data," XXIX Marketing Science Conference, INFORMS, Singapore Management University, Singapore.

**Musalem, Andrés** and Wagner Kamakura (2007): "A Bayesian Latent Class Approach to Ecological Inference for Multi-way Contingency Tables," Seminar on Bayesian Inference in Econometrics and Statistics, Washington University in St. Louis, St. Louis, Missouri.

**Musalem, Andrés**, Eric T. Bradlow, Daniel Corsten, Marcelo Olivares and Christian Terwiesch (2006): "Structural Estimation of Retail Demand Under Unobserved Out of Stocks," Joint Statistical Meetings, ASA, Seattle, Washington.

**Musalem, Andrés**, Eric T. Bradlow, Daniel Corsten, Marcelo Olivares and Christian Terwiesch (2006): "Structural Estimation of Retail Demand Under Unobserved Out of Stocks," XXVIII Marketing Science Conference, INFORMS, University of Pittsburgh, Pittsburgh, Pennsylvania.

**Musalem, Andrés**, Eric T. Bradlow and Jagmohan S. Raju (2005): "Who's got the Coupon: Estimating Consumer Preferences and Coupon Usage from Aggregate Information," XXVII Marketing Science Conference, INFORMS, Emory University, Atlanta, Georgia.

Mondschein, Susana and **Andrés Musalem** (2003): "Determining optimal service quality investments for different customer segments," XXV Marketing Science Conference, INFORMS, University of Maryland, College Park, Maryland.

**Musalem, Andrés** (2000): "Determining Service Quality Impact on profits of a financial services firm," X Latin Ibero-American Congress on Operations Research and Systems, Ciudad de Mexico, Mexico (CD-ROM).

Bosch, Máximo and **Andrés Musalem** (2000): "Category Management in Retailing: an Operations Research Vision," X Latin Ibero-American Congress on Operations Research and Systems, Ciudad de Mexico, Mexico (CD-ROM).

**Musalem, Andrés** (1999): "Calidad de Servicio y Rentabilidad: midiendo el impacto de la calidad de servicio en la rentabilidad de una empresa de servicios," III Chilean Congress on Operations Research (OPTIMA), Arica, Chile (pp. 145-153).

(Translation: "Service Quality and Profitability: measuring service quality impact on the profitability of a financial services firm")

## **Publications in Spanish**

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Bosch, Máximo and Andrés Musalem (2001): “Análisis de Interrelaciones en las canastas de compras de un supermercado”, *Revista de Ingeniería de Sistemas*, Vol. 15 (1): 49-72. (Translation: “Analysis of Interrelations in Supermarket Shopping Baskets”)

Bosch, Máximo, Cristián Espinoza, Andrés Musalem, Cristián Paz and Martín Vega (2000): “Experiencias de Administración por Categorías en Chile”, Working Paper Series, Industrial Engineering Department, University of Chile. (Translation: “Category Management Experiences in Chile”)

## **Op-Eds & Media Mentions**

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“Comentarios en línea ayudan a decidir el 83% de las compras en internet,” *El Mercurio*, September 11th, 2011, Santiago, Chile. (Translation: “Online opinions help decide 83% of internet purchases”).

“Dispersos y diversos: cómo son los segmentos C3 y D que conforman la clientela de La Polar,” *El Mercurio*, June 19<sup>th</sup>, 2011, Santiago, Chile. (Translation: “Scattered and diverse: how are the C3 and D segments that integrate La Polar’s customer base characterized?”).

“Las tácticas que está usando el comercio para aumentar sus ventas,” *El Mercurio*, June 5<sup>th</sup>, 2011, Santiago, Chile. (Translation: “The tactics being used in retail to increase sales”).

“El modelo de la española Zara que cambió la forma de vender de las multitiendas,” *El Mercurio*, May 22<sup>nd</sup>, 2011, Santiago, Chile. (Translation: “Spanish Zara’s model that changed department stores sales approach”).

“Supercenters pull sales from local supermarkets,” *Charlotte Observer*, February 16<sup>th</sup>, 2010, Charlotte, NC.

“Guerra de supermercados se desata ahora en el negocio de las tiendas de conveniencia,” *El Mercurio*, February 13<sup>rd</sup>, 2010, Santiago, Chile. (Translation: “Supermarket war is now unleashed in the convenience store business”).

“Farmacias: ¿compensación o estrategia de marketing?”, *Revista Poder*, August 2009, Santiago, Chile. (Translation: “Pharmacies: compensation or marketing strategy?”)

“¿Cuánto bajan los precios cuando Wal-Mart entra en un Mercado?,” *La Tercera*, January 23<sup>rd</sup>, 2009, Santiago, Chile.

(Translation: “How much do prices drop when Wal-Mart enters a market?”).

“La Revolución de las Nuevas Tecnologías en el Marketing,” *El Mercurio*, June 21<sup>st</sup>, 2008, Santiago, Chile.

(Translation: “The Revolution of New Technologies in Marketing”).

## **Ad-Hoc Reviewer**

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*Marketing Science, Journal of Marketing Research, Quantitative Marketing and Economics, Management Science, Journal of Econometrics, Operations Research, Psychometrika, Computational Statistics and Data Analysis, FONDECYT (The Chilean Research Fund Council).*

## **Doctoral Thesis Committees**

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Song Yao (Duke University’s Fuqua School of Business)

Jason Roos (Duke University’s Fuqua School of Business)

## **Honors and Awards**

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Management Science Meritorious Service Award, 2010.

INFORMS Marketing Science Doctoral Consortium Fellow, 2003 and 2005.

Best-paper award at the Sixth National Conference in Marketing, University of Chile, 2003: “Segmentation of customers in a supermarket store” (coauthor: Máximo Bosch).

Doctoral Fellowship, The Wharton School, University of Pennsylvania (2001-2005).

Winner of the 2001 Presidential Fellowship offered by the Chilean Government. (I renounced this fellowship because of the financial aid received from Wharton)

“Ismael Valdés Valdés” Award, 2000, for excellent academic performance, moral values and organizational and leadership skills. Award given each year to a graduating Engineering student by the Chilean Institute of Engineers since 1953.

Dean’s List, School of Engineering of the University of Chile, 1995, 1997, 1998.

Academic Excellence Fellowship, 1993, given by the School of Engineering of the University of Chile to the best 18 candidates (out of 700 students) in the admission process based on the scores of the P.A.A. (equivalent to S.A.T.).

Best Representative of the Kentian Spirit, 1992, award given each year by The Kent School (high school) to a graduating student.

Finalist at the IV Mathematics Olympics, 1992, Chilean Mathematics Society.

## **Teaching Interests**

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Marketing Management, Pricing Strategies, Product Management, Marketing Research, Latin-American Economic and Political issues.

## **Teaching Experience**

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### **DUKE UNIVERSITY, FUQUA SCHOOL OF BUSINESS**

Marketing Management (Weekend Executive and Cross-Continent MBA Programs)

Marketing Practicum (Daytime MBA Program)

Companies: American Express, Cencosud, DuPont, IBM, Walmart

Product Management (Weekend Executive and Cross-Continent MBA Programs)

South-America Global Academic Travel Experience (Daytime MBA Program)

### **DUKE UNIVERSITY, PRATT SCHOOL OF ENGINEERING**

Marketing Management (Master of Engineering Management)

### **UNIVERSITY OF PENNSYLVANIA, THE WHARTON SCHOOL**

Pricing Strategies (Undergraduate Program)

### **UNIVERSITY OF CHILE, SCHOOL OF ENGINEERING**

Marketing Research

Optimization

Industrial Engineering Thesis Seminar

### **MOST RECENT COURSE EVALUATIONS (1-7 SCALE, 7=BEST):**

ACADEMIC YEAR 2011-2012	PROGRAM	COURSE	INSTRUCTOR	OVERALL
Marketing Management (section 1)	WEMBA	6.48	6.45	6.33
Marketing Management (section 2)	WEMBA	6.48	6.64	6.41
Product Management	WEMBA/CCMBA	6.21	6.43	6.17
Marketing Practicum	Daytime MBA	6.13	6.31	6.19

## **Administrative Service and Conference Organization**

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Faculty cabinet member for the Duke MBA Latin American Student Association (since 2010).

Marketing Seminar Coordinator (jointly with Dan Ariely), Fuqua School of Business, Duke University, 2009-2010.

Marketing Seminar Coordinator (jointly with Joel Huber), Fuqua School of Business, Duke University, 2008-2009.

Organization of the 2001 Latin American Operations Research Summer School for young scholars held in Viña del Mar, Chile.

Organization of the Retail Management section of the XXIII Systems Engineering Workshop, Industrial Engineering Department, University of Chile, Santiago, Chile, July 2000.

Co-Organization of the II Congress in Marketing Research for Industrial Engineering and Business Administration students, University Federico Santa María and University of Chile, Santiago, Chile, November 2000.

Academic Coordinator of the MBA Program offered by the University of Chile in the North of Chile (Iquique, Antofagasta and Chuquicamata) to executives in the mining sector, 1999-2000.

## **Professional Society Affiliations**

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AMA: American Marketing Association, since 2004.

ASA: American Statistical Association, since 2005.

Econometric Society, since 2008.

INFORMS: Institute for Operations Research and the Management Sciences, since 2001.

## **Industry Projects**

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Marketing Practicum Projects (Fuqua):

2011-2012:

Cencosud: Developing an eCommerce Strategy

DuPont: Marketing Recommendations for Health Care Surfacing Solutions

IBM: Seizing the Web Content Management (WCM) Opportunity in a Global Market

2010-2011:

AmEx: Marketing American Express Cards to Women

DuPont: Develop potential sustainability offerings that distinguish DuPont

Titanium Technologies from competition

IBM Software Group: Embracing New Business Partner Models

Walmart: Price vs. Convenience: Are They At Odds With Each Other

Anymore? Have some online retailers figured out how to do both?

Retailing:

ECR Chile (1999 – Documentation of the implementation and results of the first Category Management projects in the Chilean Supermarket Industry)

Financial Services Industry:

Banco de Crédito e Inversiones (1998 – Linking Customer Profitability and Service Quality)

Banco Central de Chile (1998 – Methodology to design a benchmark portfolio)

Public Sector:

JUNAEB (2001 – Chilean Government Agency, Consulting Project: Use of mathematical modeling to assign contracts in a combinational auction for the supply of eyeglasses for the Chilean School System)

## **Other Activities**

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Elected Director of the Student Council, Industrial Engineering Department, University of Chile (1998).

## **Personal Information**

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Country of Citizenship: Chile.

Languages: English and Spanish.

Hobbies: drums, guitar and (table) tennis.