Olga Pak

Department of Management Science	Office: +1 (803) 777-3482
Darla Moore School of Business	Cell: +1 (812) 606-8206
University of South Carolina	opak@email.sc.edu
1014 Greene Street, Columbia, SC 29208	Updated: Aug 2018

Research and Teaching Interests

Retail Operations Management; Assortment Planning; Shelf-Space Optimization; Sustainable Operations; Operations and Marketing Interface; Service Operations Management; Revenue Management; Supply Chain Modeling; Data Analytics; Quantitative Research Methods.

Education

University of South Carolina   Expected June 2019
Darla Moore School of Business, Columbia, SC
Ph.D. Candidate
Major Area: Management Science; Cognate Area: Environmental Economics
Dissertation: "Optimization and Decision-Making Solutions in Retail Operations."
Committee: Dr. Mark Ferguson (chair), Dr. Michael Galbreth,
                    Dr. Olga Perdikaki, Dr. Su-Ming Wu (Oracle Retail).

Indiana University   2012
Department of Economics, Indianapolis, IN
MA in Economics
Major Area: Microeconomics; Cognate Area: Game Theory

Indiana University   2009
Kelley School of Business, Bloomington, IN
BS in Business Administration
Major Areas: Economic Consulting; Public Policy Analysis

Honors and Grants

- PhD Program Fellowship, University of South Carolina (2014-2019)
- Graduate School Travel Grant, University of South Carolina (2015, 2017)
- Consortium for the Advancement of Research Methods and Analysis Grant (Longitudinal Research Methods), University of South Carolina (January 2018)
- Summer Empirical Workshop Grant, (Center for Free Enterprise) West Virginia University (July 2017)
- Faculty Development in International Business Grant, (Global Supply Chain and Operations Management,) University of South Carolina (June 2016)
- Academic Achievement Award, Kelley School of Business, Indiana University Founder's Day Recognition (2007)

Research

Under Review
"Optimizing Stock-Keeping Unit Selection for Promotional Display Space at Grocery Retailers,"
(with Mark Ferguson, Olga Perdikaki, and Su-Ming Wu). Review & resubmit in the *Journal of
Operations Management*.

> *Promotional displays are a powerful tool to boost consumer engagement. In this joint work
> with Oracle Retail, we propose a multi-step methodology to identify a profit-maximizing
> selection of products for promotional display using grocery store sales transaction data.
> We develop a decision support tool that consists of an estimation model and an
> optimization model. Using a grocery store sales transaction dataset, we measure the
> incremental lift in sales of placing a particular SKU on promotional display space. Overall,
> our methodology results in at least a 17.51% improvement in incremental profit when
> compared to an industry benchmark.*

Work in Progress
"Retailer Strategies to Encourage Reduced Packaging Adoption: a Threshold Perspective," (with
Mark Ferguson and Michael Galbreth).

"Decision Trees," (with Mark Ferguson, Olga Perdikaki, and Su-Ming Wu).

"Forecasting Price, Promotion, Display and Package Type Effects from Retail Transaction Data,"
(with Mark Ferguson, and Mariana Nicolae).

Patents

"Method and System for Generating a Schedule Data Structure for Promotional Display," (with
Mark Ferguson, Olga Perdikaki, and Su-Ming Wu; patent pending for Oracle International
Corporation).

Conference Presentations

- "Retailer Strategies to Encourage Reduced Packaging Adoption: a Threshold Perspective,"
  (with Mark Ferguson and Michael Galbreth). *The Institute for Operations Research and the
  Management Sciences (INFORMS)*. Houston, TX 2017 and Phoenix, AZ 2018.
- "Estimating and Optimizing Promotional Display. A Grocery Store Perspective," (with Mark
  Ferguson, Olga Perdikaki, and Su-Ming Wu). *The Institute for Operations Research and the
  Management Sciences (INFORMS)*. Houston, TX 2017 and Phoenix, AZ 2018.
- "Retailer Strategies to Encourage Reduced Packaging Adoption: a Threshold Perspective,"
  (with Mark Ferguson and Michael Galbreth). *Production and Operations Management
  Society (POMS)*. Seattle, WA 2017.
- "Estimating and Optimizing Promotional Display. A Grocery Store Perspective," (with Mark
  Ferguson, Olga Perdikaki, and Su-Ming Wu). *Production and Operations Management
  Society (POMS)*. Seattle, WA 2017.
- "Estimating and Optimizing Promotional Display. A Grocery Store Perspective," (with Mark
  Ferguson, Ming Lei, and Su-Ming Wu). *Production and Operations Management Society
  (POMS)*. Orlando, FL 2016.
- "Estimating and Optimizing Promotional Display. A Grocery Store Perspective," (with Mark
  Ferguson, Ming Lei, and Su-Ming Wu). *The Institute for Operations Research and the
  Management Sciences (INFORMS)*. Philadelphia, PA 2015.

- "Drivers of Demand for Consumer Packaged Goods (CPGs) that Have Wide Variations in Price and Perceived Quality," (with Mark Ferguson). *Production and Operations Management Society (POMS)*. Washington, DC 2015.
- "Forecasting Price, Promotion, Display and Package Type Effects from Retail Transaction Data," (with Mark Ferguson, and Mariana Nicolae). *Production and Operations Management Society (POMS)*. Washington, DC 2015.

Teaching Experience

Moore School of Business, University of South Carolina, SC

Instructor
MGSC 395 Introduction to Operations Management (Fall 2016 and Fall 2018)
- Responsibilities: Developed and presented lectures; created class curriculum, administered homework, quizzes, and exams; graded student work; held office hours & review sessions
- Fall 2018--Enrollment: 30 students
- Fall 2016—Enrollment: 30 students, Evaluations: 4.1/5.0

Teaching Assistant
- MGSC 778 Revenue Management (Spring 2018) for Dr. Mark Ferguson
- MGSC 877 Advanced Quantitative Methods in Business (Fall I 2014, Spring I 2015, Fall I 2015) for Dr. Michael Galbreth
- MGSC 486 Service Operations Management (Spring 2017) for Dr. Mark Ferguson
- MGSC 486 Service Operations Management (Spring 2015) for Dr. Michael Galbreth

Other Relevant Experience
- Individual tutor for MGSC 486 Service Operations Management (undergraduate students), University of South Carolina
- Individual tutor for MGSC778 Revenue Management (graduate students), University of South Carolina
- *Stata* workshop on applied data analytics (Business Analytics Club), Moore School of Business, University of South Carolina

Relevant Coursework

Operations Management/Marketing
- Advanced Topics in Management Science (I, II, III); Seminar in Management Research and Methodology; Revenue Management; Research Methods and Philosophy in Marketing; Marketing Models.

Data Analytics
- Econometrics and Regression; Probability; Advanced Statistics for Business and Economics; Latent Variable Estimation Techniques; Statistical Inference (Microeconometrics); Time Series and Forecasting; Game Theory (I, II).

Environmental Economics
- Environmental Economics; Microeconomic Theory; Applied Microeconomics (I, II).

Service and Leadership

Co-Founder & President, **Business Analytics Club**, Darla Moore School of Business
>The club offers undergraduate, graduate, and Ph.D. student opportunities to learn more about business analytics, including software demonstrations in popular analytics programs such as SAS, Stata, SPSS, Tableau, R, and others. The club also hosts guest speakers from the business and academic communities and offers service projects using data analytics to help the local community. Club members compete in nationwide competitions such as the SAS Analytics Shootout.

Society Memberships: INFORMS, POMS.

Past and Current Community Involvement: Harvest Hope (volunteer data analyst), Sexual Trauma Services Crisis Center (volunteer data analyst), and "Transitions" Homeless Shelter (kitchen volunteer).

Statistical Packages and Programming Skills

Stata, R, SAS (+Enterprise Miner), Qualtrics, LaTeX, Alteryx, Esri ArcGIS BAO, Tableau, Java

Languages

English (fluent), Russian (native language proficiency)

References

Dr. Mark Ferguson
Department Chair and Wilbus S. Smith Professor of Management Science
Department of Management Science &
Center for Applied Business Analytics
Darla Moore School of Business
University of South Carolina
(803) 777-5923
Mark.Ferguson@moore.sc.edu

Dr. Michael Galbreth
Department Head and Professor of Business Analytics
Pilot Corporation Chair of Excellence
Department of Business Analytics and Statistics
Haslam College of Business
University of Tennessee, Knoxville
(865) 974-1683
galbreth@utk.edu

Dr. Olga Perdikaki
Assistant Professor of Management Science
Department of Management Science
Darla Moore School of Business
University of South Carolina
(803) 777-7230
olga.perdikaki@moore.sc.edu