Last updated: July 26, 2022

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Education

Kellogg School of Management, Northwestern University, Evanston, IL

Ph.D. in Marketing — Expected 2023

M.S. in Marketing — 2018

Yonsei University, Seoul, Korea

M.A. in Statistics — 2016

B.A. in Statistics — 2014
Magna Cum Laude

Erasmus University Rotterdam, Rotterdam, the Netherlands

Exchange Student at Erasmus School of Economics — 2011

Working Papers

Shrinkflation: Evidence on product downsizing and consumer response
Job Market Paper

Work in Progress

Information frictions and delays on add-on purchases (*with Brett Gordon*)

Persistent brand loyalists

Honors and Awards

Graduate Fellowship and Full Tuition Scholarship, Northwestern University	2016 – present
Research Scholarship, Yonsei University	2014 – 2016
Magna Cum Laude (Graduated with High Honors), Yonsei University	2013
High Honors, Honors, Merit-Based Scholarship, Yonsei University	2010 – 2013

Conferences and Seminar Presentations

Haring Symposium (Discussant), Indiana University	2022
ISMS Marketing Science Doctoral Consortium	2021, 2022
Transatlantic Doctoral Conference, London Business School	2019
Machine Learning Workshop, Carnegie Mellon University	2019
Quantitative Marketing and Structural Econometrics Workshop, Northwestern University	2019

Publications

Youngeun Lee and Taeyoung Park. (2016) Bayesian Inference on Multivariate Asymmetric Jump-Diffusion Models, *The Korean Journal of Applied Statistics*, 29(1), 99–112.

Sungho Lim, Pegge M. Halandras, Taeyoung Park, **Youngeun Lee**, Paul Crisostomo, Richard Hershberger, Bernadette Aulivola, and Jae S. Cho. (2015). "Outcomes of Endovascular Abdominal Aortic Aneurysm Repair (EVAR) in High-Risk Patients", *Journal of Vascular Surgery*, 61(4), 862–868.

Taeyoung Park and **Youngeun Lee**. (2014). "Efficient Bayesian Inference on Asymmetric Jump-Diffusion Models", *The Korean Journal of Applied Statistics*, 27(6), 959–973.

Teaching Experience

Kellogg School of Management, Northwestern University, Evanston, IL
Teaching Assistant, PhD

Structural Modeling, Prof. Brett Gordon	2018 – 2019
Statistical Modeling, Prof. Blake McShane	2019

Teaching Assistant, MBA

Retail Analytics and Pricing, Prof. Brett Gordon	2019
Customer Analytics and AI, Prof. Blake McShane	2019
Data Exploration, Prof. Robert McDonald	2019
Digital Marketing Analytics, Prof. Jennifer Cutler	2018
Marketing Research and Analytics, Prof. Rima Toure-Tillery	2017

Yonsei University, Seoul, Korea
Instructor

STA2105 Statistical Methods	Spring 2016

Teaching Assistant

STA1001 Introduction to Statistics	Spring, Fall 2015
STA3124 Stochastic Process	Spring 2014, Spring 2015
STA3126 Mathematical Statistics I	Fall 2014, Fall 2015
Statistical Decision Making (*EMBA*)	Fall 2014, Fall 2015

Doctoral Coursework

Marketing

Introduction to Theory and Empirical Methods	Eric Anderson, Anna Tuchman
Marketing Strategy	Gregory Carpenter
Statistical Modeling	Blake McShane
Bayesian Methods and Computation	Blake McShane
Structual Modeling	Brett Gordon
Analytical Modeling	Anne Coughlan
Topics in Quantitative Marketing	Blake McShane, Jennifer Cutler Eric Anderson, Brett Gordon
Theory in Consumer Research (audit)	Alice Tybout, Brian Sternthal

Economics

Microeconomics I, II, III	Eddie Dekel, Marciano Siniscalchi, Alessandro Pavan
Econometrics I, II, III	Charles Manski, Ivan Canay, Joel Horowitz
Advanced Econometrics	Ivan Canay
Industrial Organization and Prices I, II, III	William Rogerson, Gaston Illanes
	Robert Porter, Vivek Bhattacharya
Economics of Innovation	Daniel Spulber
Research in Economics	

Others

Empirical Dynamic Models in Operations Management	Robert Bray
Computational Social Science: Methods and Applications	Adam Pah

References

For letters of reference please contact James Ward: j-ward@kellogg.northwestern.edu

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Northwestern University
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Brett Gordon
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Abstracts

Shrinkflation: Evidence on product downsizing and consumer response

Product downsizing, also referred to as shrinkflation, is a strategy used by firms in response to cost increases: firms indirectly increase unit prices by reducing package sizes while keeping item price constant. This paper documents the extent of product downsizing, quantifies the impact on price and quantity sold in a regression framework, estimates a demand model to measure the consumer response, and shows why firms might product downsize rather than increase prices. To provide systematic evidence of product downsizing, I leverage a comprehensive dataset of products across a wide range industries. The sample includes reduced products from across 56 product categories and 295 product sub-categories. The size of reduction is non-trivial, where the median product is reduced by 11 percent of its package size. In a regression framework, I show that package size reduction leads to an increase in unit price by 9 percent at the median, whereas item prices remained consistent. I find minimal quantity response to package size reductions, and analyze whether quantity reaction varies across product types and unit pricing regulations. To investigate when and why firms might product downsizing, I use a demand model to measure package size elasticities and price elasticities. In a counterfactual exercise, I evaluate a manufacturer's decision of whether to increase the item price or reduce the package size in the face of rising marginal costs. Results show that product downsizing is more profitable than increasing prices for the majority of the products. However, a trade-off exists in reducing package sizes if demand is responsive to changes in package sizes due to the asymmetries in price elasticity and package size elasticity.

Information frictions and delays on add-on purchases (with Brett Gordon)

Many firms offer add-on products at the time of sale of a base product to generate additional revenue. In settings where the eventual consumption occurs at a later date, consumers may face uncertainty over the utility they will obtain for the add-on product. Consequently, consumers may delay the purchase of the add-on, forgoing the potential benefits of advanced purchase such as discounts and guaranteed availability. We study consumers' add-on purchase decisions in the cruise industry using detailed individual-level data provided by an international cruise line. After booking a particular cruise and room ("itinerary"), customers may pre-purchase a variety of onboard products to complement their cruise experience. Although the vast majority of consumers *eventually* purchase these add-ons, significant variation exists in the decision of *when* to purchase them: immediately after booking the ticket, at a later date before the cruise departs, or while on the cruise. We find that roughly half of the consumers delay all of their add-on purchases until they are onboard, despite the benefits offered from pre-purchasing. To explore strategies that encourage pre-purchases of add-ons, we develop a model of consumers' add-on purchase decisions under imperfect information. For the cruise-line, there can be potential trade-offs with encouraging pre-cruise purchases. Consumers' pre-cruise spending may replace any potential onboard spending, resulting in a decrease in overall spending. We investigate how the cruise line can generate *incremental* add-on sales by reducing consumer uncertainty before the cruise departs.

Persistent brand loyalists

This paper studies persistent brand loyalty in which consumers exhibit persistent brand choices over time and across categories. I document consumers with persistent brand loyalty by exploiting a unique setting in the disposable diaper industry. The diaper industry provides an ideal setting to study persistent brand loyalty for two reasons. First, category migration from diapers to training pants occurs exogenously for each household as babies grow out of diapers. Second, such category migration is necessary, thus forced, since there are no direct substitutes to training pants. In this sequentially ordered category, the market-share leadership from diapers to training pants flips: Pampers leads in diapers, whereas Huggies leads in training pants. The flip in market-share leadership raises questions on whether consumers' brand capital spillovers to the other categories or whether consumers newly establish brand preferences in the other categories. To provide evidence on persistent brand preferences, I show that that past brand preferences do persist over time, and ultimately spillover from diapers to training pants. To rule out supply-side explanations, I analyze supply-size variables, including pricing, availability, and advertising. Findings provide evidence on the long-lasting impact of past brand preferences on adjacent product categories. I ask whether households with persistent brand preferences are intrinsically different from other households, and thus exhibit similar behavior in other categories.