Jung Youn Lee

Kellogg School of Management
Northwestern University
2211 Campus Drive Evanston, IL 60208

+1 (224) 253 0234
jungyoun.lee@kellogg.northwestern.edu
www.jungyounlee.com

EDUCATION

Kellogg School of Management, Northwestern University Evanston, IL 2016−Present
Ph.D. in Quantitative Marketing

Korea Advanced Institute of Science and Technology Daejeon, Korea 2012−2014
M.S. in Culture Technology

Rice University Houston, TX 2007−2011
B.A. in Economics

RESEARCH INTERESTS

Quantitative Marketing, Causal Inference, Applied Machine Learning
Economics of Data, Consumer Protection, Advertising

RESEARCH

"Commercial Success through Commercials? Advertising and Pay TV Operators"
with Pradeep K. Chintagunta and Joonhyuk Yang (equal contribution)
Journal of Marketing Research, forthcoming

"Buying and Payment Habits: Using Grocery Data to Predict Credit Card Payments"
with Eric T. Anderson and Joonhyuk Yang (**Job Market Paper**)
Recipient of *Wharton Customer Analytics* Data Grant

"Returns on Ranking Manipulation on Sales Platforms"
Working Paper

AWARDS, GRANTS AND FELLOWSHIPS

ISMS Doctoral Consortium Fellow 2021
Wharton Customer Analytics Data Grant 2019
International Telecommunications Policy Review (ITPR) Best Paper Award 2015
National Scholarship, Korea (covered full tuition with stipend) 2012–2014
Best Teaching Assistant Award, KAIST 2012
Cum Laude, Rice University 2011
President's Honors Rolls, Rice University 2007–2009

CONFERENCE PARTICIPATION (*presented)

ISMS Marketing Science Conference	2020*, 2021
Boulder Summer Conference on Consumer Financial Decision Making	2021
Haring Symposium	2021*
Bass FORMS Conference	2021
NBER Economics of Digitization Conference and Tutorial	2020, 2021
Quantitative Marketing and Economics (QME) Conference	2018, 2019, 2020
Wharton Customer Analytics Symposium	2020*
CMU Machine Learning Workshop	2019

TEACHING INTERESTS

Marketing Analytics, Digital Marketing, Social Media Marketing

TEACHING EXPERIENCE

Kellogg School of Management, Northwestern University 2018–2020

Teaching Assistant: Retail Analytics (MBA); Digital Marketing Analytics (MBA); Digital Marketing Strategy (MBA); Marketing Strategy (MBA)

REFERENCES

Eric T. Anderson (committee chair)
Polk Brothers Chair in Retailing
Professor of Marketing
Kellogg School of Management
Northwestern University
+1 (847) 467 6482
eric-anderson@kellogg.northwestern.edu

Brett R. Gordon (committee)
Professor of Marketing
Kellogg School of Management
Northwestern University
+1 (847) 491 5625
b-gordon@kellogg.northwestern.edu

Anna E. Tuchman (committee)
Associate Professor of Marketing
Kellogg School of Management
Northwestern University
+1 (847) 467 6436
anna.tuchman@kellogg.northwestern.edu

Pradeep K. Chintagunta
Joseph T. and Bernice S. Lewis Distinguished Service Professor of Marketing
Booth School of Business
University of Chicago
+1 (773) 702 8015
pradeep.chintagunta@chicagobooth.edu

Joonhyuk Yang
Assistant Professor of Marketing
Mendoza College of Business
University of Notre Dame
+1 (574) 631 1163
joonhyuk.yang@nd.edu

Contact for letters: `recruit-mktg@kellogg.northwestern.edu` (James Ward III)

ABSTRACTS

"Buying and Payment Habits: Using Grocery Data to Predict Credit Card Payments"
Job Market Paper

This study shows that individuals' habits in grocery shopping are incrementally useful in predicting their credit card payment behaviors, and that such incremental predictive power can translate into incremental profits for firms. Guided by prior work, we identify five broad grocery shopping habits that are correlated with payment behaviors: (1) shopping the same day of week, (2) relying on a shopping budget, (3) consistently buying the same brands and categories, (4) taking advantage of deals and promotions, and (5) buying healthier products. Knowledge of the five grocery habits offers guidance on how to transform the raw grocery data into model inputs for flexible machine learning models, which we use to assess the incremental predictive power of grocery data. We find the incremental predictive gain from grocery data, above and beyond standard data sets used by issuers, ranges from 0.1 to 5.5 percent, depending on data environment faced by issuers in various credit markets. Further, simulations of issuers' credit extension decision illustrate that the marginal impact on issuer profits ranges from 0.3 to 15.2 percent and is greatest for consumers who do not have an established credit history. This suggests that grocery data may enable credit card issuers to extend credit to consumers who currently have limited or no access to credit. We also discuss a boundary condition in which grocery data may not have incremental value. Overall, this study highlights how consumer data from a seemingly unrelated domain can help address a managerial problem in the focal domain.

"Commercial Success through Commercials? Advertising and Pay TV Operators"

The US pay television service market had been dominated by cable operators until the nationwide entry of satellite operators in the early 1990s. The latter have been consistently growing their footprints since. This study documents the role of television advertising to explain the success. Using data on US households' subscription choices and operators' advertising decisions, we document both demand- and supply-side conditions conducive to the growth of the satellite operators. First, we find consumers in this market were sensitive to advertising, and especially so to that of the satellite operators (advertising elasticities of about 0.05-0.06 for satellite operators vs. 0.02 for cable operators). We employ a border strategy to demonstrate advertising-elastic demand and discuss its robustness to potential threats to identification. Second, we provide suggestive evidence that a form of asymmetric cost efficiencies in television advertising benefited the entrants more than the incumbents. Specifically, the unit costs of local advertising tend to be higher than of national advertising, which likely allowed the satellite operators to better leverage their national presence with (cheaper) national advertising. Overall, this study highlights the interaction between advertising efficiencies and the scale of entry in explaining the competition between market incumbents and entrants.

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"Returns on Ranking Manipulation on Sales Platforms"

While product rankings can mitigate information asymmetries about product quality between consumers and sellers on platforms, they can also incentivize some sellers to manipulate the proxies of quality. In this paper, I study the extent to which such seller cheating is profitable by measuring returns on cheating at the seller-product level. My empirical analysis focuses on the Korean book market in which some book publishers (sellers) were caught for inflating sales figures of their own books with the aim of climbing up bestseller lists. I use long, detailed panel data on book purchases from one of the largest bookstore chains in the nation, which contain fake sales by dishonest sellers. The key challenge for my analysis is that the data lacks labels indicating whether a given purchase is fake. To this end, I create labels using a rule-based approach that combines human domain expertise and data-driven thresholds. My estimates of returns on cheating at the seller-product level suggest that the average return is 21% in the short run, with the returns being positive in 67% of all cheating instances. Further, a significant share of books that experienced fake sales would have been ranked anyway without cheating.

PH.D. COURSEWORK

Marketing

Theory and Empirical Methods	Eric Anderson, Anna Tuchman
Structural Modeling	Brett Gordon
Analytical Modeling	Anne Coughlan
Bayesian Methods	Blake McShane

Economics

Microeconomic Theory	Eddie Dekel
General Equilibrium	Marciano Siniscalchi
Game Theory	Alessandro Pavan
Industrial Organization I	William Rogerson
Industrial Organization II	Robert Porter, Vivek Bhattacharya
Industrial Organization III	Gaston Illanes
Economics of Innovation	Ben Jones, Bryony Reich
Economics of Organization	Daniel Barron

Econometrics

Identification and Prediction	Charles Manski
Asymptotic Theory	Joel Horowitz
Causal Inference	Ivan Canay
Structural Estimation	Robert Bray

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