Korea Advanced Institute of Science and Technology (KAIST)

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Research Interests

Research Topics

Emerging Technologies, Economics of Digitization, Mobile Marketing, FinTech, Innovation Policy

Research Methods

Field Experiment, Quasi-Experiment and Applied Econometrics (i.e., 'Metrics), Machine Learning for Causal Inference (e.g., Deep IV), Mining Unstructured Data (e.g., texts, voices, or images)

Education

Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, Republic of Korea

Ph.D. in Business and Technology Management. (September 2013 – present)

Dissertation: "Essays on Marketing Impacts of Emerging Disruptive Technologies" (tentative)

Committee: Wonjoon Kim (Chair), Yuxin Chen (NYU), Minki Kim, Dukhee Lee, Hyejin Kim

Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, Republic of Korea

M.Eng. in Management Science. (September 2011 - August 2013)

Thesis: "Exploring the Influence of Social Recommendation on Choice Overload Phenomenon: Focusing on Cognitive Conflict and Ideal Point Availability"

Committee: Wonjoon Kim (Chair), Hangjung Zo, Youngyim Doh

University of Arizona

Tucson, AZ

B.A. in Economics. Minor in Japanese. (August 2006 - December 2010)

Research Experience

Working Papers

1. **Yoo, Jaewon**, Yuxin Chen, Minki Kim, and Wonjoon Kim. "Mobile Payment and Mobile Purchase Behavior", preparing for submission to *Marketing Science*

Abstract. The advent of the digitized economy has changed the payment landscape. Incorporating new biometric technologies such as face recognition, voice recognition, and fingerprint scanning, third-party mobile payments (e.g., Google Pay, WeChat Pay, and Kakao Pay) are

gathering a strong customer base. These newly emerging mobile payment services, from the users' standpoint, bring about a substantial shift in their transaction experience as they require fewer tasks to be completed in comparison to the incumbent payment options such as credit card. Drawing from the transaction cost theory and the literature on consumer psychology, therefore, this paper delineates and empirically analyzes the behavioral consequences of the mobile payments under the setting where the customers purchase books in offline stores using their mobile phones. The results confirm that the adoption of a mobile payment significantly increases consumer spending and consumption variety, but decreases concentration on personal favorites. Interestingly, the adoption increases purchase frequency per trip and maximum price of the books purchased as well. Furthermore, supplementary analyses reveal that there exists heterogeneity in the treatment effects and that these effects are not driven by the customers simply migrating from other channels. Also, additional identification tests and robustness checks are conducted to rule out alternative explanations and confirm the validity of the results. We discuss the implications for consumers and retailers utilizing the third-party mobile payment services.

 Yoon, Seokjoon, Jaewon Yoo, Minki Kim, Wonjoon Kim, and Minsok Lee. "Overcoming the Challenges of Mobile Marketing: Content Marketing in a Mobile and Distracted World", Under review at Management Science

Abstract. Mobile marketing, despite its popularity among marketers, has yet to overcome the persistent challenges of consumer apathy and short attention span, thus resulting in low engagement and conversion. Although mobile content marketing (MCM) has emerged as an alternative solution to such challenges in practice, academic research on the effectiveness and strategies of MCM is still in its infancy. This study aims to investigate the causal impact of MCM on customer engagement and sales. To this end, we conducted a randomized controlled trial in close collaboration with both a book retailer and a large number of publishers. We empirically confirm the effectiveness of MCM by showing that it is capable of increasing both customer engagement (e.g., higher check-in rate) and sales revenue (e.g., higher click-through and sales conversion), but its success is largely determined by the quality of the content being used. Our findings confirm that MCM can backfire if not implemented properly. While informative and entertaining content is consumed more, entertaining content that better sustains readers' attention can be even more effective.

Publications

- 1. **Yoo, Jaewon**, Hyunsik Park, and Wonjoon Kim. "Compromise Effect and Consideration Set Size in Consumer Decision-Making." *Applied Economics Letters* 25, no. 8 (2018): 513-517.
- 2. Kang, Minjeong, **Jaewon Yoo**, Wonjoon Kim, and Namil Kim. "The Effect of Alliance Activity on Patent Litigation." *Journal of Korea Technology Innovation Society* 21, no. 1 (2018): 265-299.

Work-in-Progress

 "The Dark Side of Digitization: The Impact of Online Intermediaries on the Distribution of New Narcotics" With Namil Kim, Yuxin Chen, and Wonjoon Kim (data analysis in progress)

Conference Presentations and Invitied Talks

"Mobile Payment and Mobile Purchase Behavior"

- 1. 11th Yale China India Consumer Insights Conference at MIT, Boston, MA. September 20 21, 2019. (Accepted as a **recipient of the doctoral student support from Yale SOM**)
- 2. Erasmus School of Economics (ESE), Erasmus University Rotterdam. Rotterdam, Netherlands. September 12, 2019.
- 3. *The* 3rd CEIBS Marketing Symposium at CEIBS, Shanghai, China. April 26, 2019. (Presented by Prof. Yuxin Chen)
- 4. Invited Talk for a Graduate Course on *Marketing Theory*, KAIST College of Business. April 18, 2019.
- 5. The 2019 Spring Conference of the Korean Marketing Association at Korea U., Seoul, Republic of Korea. March 8, 2019.

"Overcoming the Challenges of Mobile Marketing: Mobile Content Marketing in a Distracted World"

- 6. 40th Annual ISMS Marketing Science Conference at Temple U., Philadelphia, PA. June 13 18, 2018. (Presented by Prof. Minki Kim)
- 7. Darden-Cambridge Judge-HKU FBE Entrepreneurship and Innovation Research Conference at HKU, Hong Kong, China. May 9 10, 2018. (Presented by Prof. Minki Kim)
- 8. NYU-Temple 2017 Conference on Digital, Mobile Marketing, and Social Media Analytics at NYU, New York, NY. December 8 9, 2017. (Presented by Prof. Minki Kim)
- 9. The 2017 Conference of Korea Association for Telecommunications Policies in Seoul, Republic of Korea. November 17, 2017. (Presented by Seokjoon Yoon)
- 10. The 2017 Fall Conference of the Korean Marketing Association in Daejeon, Republic of Korea. November 3, 2017. (Presented by Prof. Minki Kim)

"Helping Hands to Bear the Burden of Choice: Recommendations from Similar, but Not Close, Others Reduce Choice Difficulty"

11. *International Symposium on Education, Psychology, Society and Tourism* in Seoul, Republic of Korea. June 27 - 29, 2013.

Project Experience

- 1. Research Assistant for the Global Innovation and Production Network and the Sustainable Industrial Ecosystem of Korea, Social Sciences Korea (SSK), National Research Foundation (NRF) of Korea. (2012 current)
- 2. Research Assistant for *Social Big Data Science Research Team*, BK21 Plus, NRF. (2013 current) Media mention (in Korean): https://goo.gl/ZciGQP

Teaching Interests

Online and Mobile Business, Creative Marketing Strategy, Business Analytics, Research Methodology (e.g., Applied Econometrics, Natural and Quasi-Experiments), FinTech, Innovation Policy

Teaching Experience

Teaching Assistant for Graduate Courses

KAIST, Department of Management Science

Daejeon, Republic of Korea

1. Research Methodologies I (MSB 601), Fall 2014

Teaching Assistant for Undergraduate Courses

KAIST, School of Business and Technology Management

Daejeon, Republic of Korea

- 2. R&D Project Management (MSB 360), Fall 2016
- 3. Supply Chain Management (MSB 446), Spring 2016

KAIST, Department of Management Science

Daejeon, Republic of Korea

- 4. Introduction to Business Management (MSB 200), Spring 2014
- 5. Intermediate Microeconomics (ECN 311), Fall 2013
- 6. Corporate Strategy and Design Process (MSB 552), Fall 2012
- 7. Special Topics in Management Science I <Innovation and Sustainability> (MSB 481), Spring 2012
- 8. Microeconomics (MSB 504), Fall 2011

Honors, Grants, and Awards

Global Ph.D. Fellowship Grant (March 2014 – February 2017)

NRF Korea

Size, Entropy, and Density: The Impact of Social Influence on Assortments and Choices

Total Grant: KRW 90 mil. (\approx USD 75,966 or EUR 68,931 as of Sep. 2019)

Media mention (in Korean): https://goo.gl/vmNakP

KAIST Ph.D. Full Scholarship (September 2013 – February 2019)

KAIST

Total Scholarship: KRW 76.634 mil. (≈ USD 64,681 or EUR 58,678)

KAIST Master's Degree Full Scholarship (September 2011 – August 2013)

KAIST

Total Scholarship: KRW 32.048 mil. (\approx USD 27,042 or EUR 24,534)

Dean's List (Fall 2009)

University of Arizona

Honorable Mention (Spring 2009)

University of Arizona

Honorable Mention (Fall 2008)

University of Arizona

Selected Coursework, Workshops, and Bootcamps

Selected Doctoral Coursework

Marketing and Management

Advanced Quantitative Marketing Minki Kim
Marketing Management Euchun Lee
MIS Doctoral Seminar Hangjung Zo
Organization and Management Theory Chanhoo Song

Economics

Network Economics

Dukhee Lee

Microeconomics

Youngsun Kwon

Econometrics

Jihee Kim

Statistics and Methodology

Advanced Special Topics on Business Analytics

Chulho Lee
Probability and Statistics (Department of Mathematical Sciences)

Research Methodology

Chanhoo Song
Advanced Statistics for Management

Myeongcheol Park

Additional Training from Selected Workshops and Boot Camps

The Quantitative Marketing and Structural Econometrics (QMSE) Workshop, Northwestern University (2015)

Aggregate Demand Models I & II K. Sudir (Yale)

Structural Modeling in Marketing and Economics Brett Gordon (Northwestern)

Raphael Thomadsen (WashU)

Florian Zettelmeyer (Northwestern)

Causal Effects, Experiments, and Identification Catherine Tucker (MIT)

Single-Agent Dynamic Models I, II, & III Günter Hitsch (Chicago)

A Guide to Instruments and Fixed Effects

Peter Rossi (UCLA)

Empirical Games Sanjog Misra (UCLA)

Understanding the Data Generating Process Eric Anderson (Northwestern)

Carl Mela (Duke)

Fred Feinberg (Michigan)

Machine Learning Methods in Marketing Sanjog Misra (UCLA)

Big Data and Marketing

Carl Mela (Duke)

The 1st KAIST Innovation and Entrepreneurship Research Boot Camp, KAIST (2019)

Entrepreneurial Strategy	Scott Stern (MIT)
Institutions, Knowledge Accumulation, & Innovation Outcomes	Jeff Furman (Boston)
Economics and Management of AI and Convergence	Wonjoon Kim (KAIST)
Entrepreneurship and Innovation	Aaron Chatterji (Duke)
Artificial Intelligence and Robotics: Implications for Labor	Yong Suk Lee (Stanford)
Data-Driven Innovation Study	Heijin Youn (Northwestern)
Entrepreneurship: Insights from Israel's Startup Nation	Manuel Trajtenberg (Tel Aviv)
Firm Growth, Innovation, & Industry Dynamics	Alex Coad (PUCP)
Big Data and Data Science Research in Political Science Research	Insong Kim (MIT)

Other Workshop and Boot Camp Participation

The 2^{nd} Workshop on Data Science for Business, KAIST (2014).

Activities

Academic Membership

Active member of INFORMS Society for Marketing Science; American Marketing Association (AMA); American Economic Association (AEA); Korea Technology Innovation Society; The Korean Society For Technology Management and Economics; and The Korean Academic Society for Business Administration

Other Activities

President of the graduate student council for the department of management science, KAIST (January 2015 - December 2015)

Skills

Research Methods

Field experiment (e.g., A/B testing in online platform), Quasi-experiment and applied econometrics (e.g., DID, RDD, matching methods, and synthetic control), Panel data analysis (regression and its variants), Web crawling, Survey methodology, Focus group

Analytical / Research Tools

R, STATA, LATEX, Python, Google Analytics

Computer Skills

Operating systems: Linux, Unix, Windows

Maintained a Linux server for the ISP and CMP lab, KAIST (March 2016 - present)

Language

Korean (Native), English (Fluent), Japanese (Intermediate)

References

Wonjoon Kim

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Yuxin Chen

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Leonard N. Stern School of Business

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Minki Kim

Assistant Professor

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