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(Updated June, 2018)

EDUCATION

Hanyang University, College of Computing, Ansan, Korea
    Post-doctoral researcher in Data Science Laboratory   2018 – Present

Korea Advanced Institute of Science and Technology, College of Business, Seoul, Korea
    Ph.D. in Management Engineering (Major: Marketing)   2018
    M.S. in Management Engineering (Major: Marketing)   2014

Korea Advanced Institute of Science and Technology, Daejeon, Korea
    B.S. in Industrial & Systems Engineering (*Magna Cum Laude*)   2011

RESEARCH INTERESTS

Regret and Decision-making	Latent Class Modeling
Choice and Demand Models	Bayesian Analysis
Marketing Analytics	Machine Learning
Digital and Social Media Marketing	Field Experiment

DISSERTATION OVERVIEW

"Choosing for a Different Reason: Random Regret Minimization Discrete Choice Model in Marketing"

Committee**:** Minhi Hahn (Chair), Jaehwan Kim, Minki Kim, Hye Jin Kim, Duk Bin Jun

Although it is well-known that consumers often anticipate how they might feel about future purchase outcomes and use those feelings as a guide for making choices, the fundamental assumption that is dominant in the discrete choice model for investigating consumer choices is silent on the impact of emotion. Moreover, relatively little is understood about the boundary

conditions for which consumers are more likely to be emotionally rational. To fill this void, in three separate essays, I pursued comprehensive quantitative studies that introduced the random regret minimization (RRM) model from the transportation science field to the marketing domain and tested its validity. RRM is a reference-dependent discrete choice model that takes the anticipated emotion (i.e., regret) into account to model choices. Specifically, I looked at how market segmentation with the RRM can delineate insights into consumer choices, and incorporated constructs from behavioral science to test the boundary conditions for emotional rationality. In doing so, I used simulation and a series of discrete choice experiments involving US consumers. Essay 1 uncovers that the RRM and conventional model results in different market segments with different consumer preferences for product design and segment profiles when the heterogeneity is incorporated with a latent class modeling framework. I further show that two different approaches for incorporating the consumer preference heterogeneity — a latent class modeling approach and a continuous mixture approach combined with an unsupervised machine learning — may lead to distinctive market segmentation. Building upon the literature on consumer behavior, I find that consumer-specific (chronic regulatory focus) and situation-specific (salience of anticipated regret and choice reversibility) drivers may be tied to identify a significant segment of regret-minimizing consumers in Essay 2 and Essay 3, respectively. To sum up, these studies highlight the importance of incorporating different decision mechanisms as a segment of consumers making decisions for a different reason may require different marketing strategies, such as different product design and brand positioning.

PUBLICATIONS (Abstracts in Appendix)

Park, E., **Lim, J.,** and Cho, Y. (2018). **"Understanding the Emergence and Social Acceptance of Electric Vehicles as Next-Generation Models for the Automobile Industry"**, *Sustainability*, 10(3), 662.

Lim, J., Kim, M., and Go, G. (2017). **"Do Media Type and Time of Day Matter in Social Media Engagement? The Case of the Music Industry"**, *International Telecommunications Policy Review*, 24(1), 105-124.

Hahn, M. and **Lim, J**. (2015). **"True Partnerships between Consumers and Marketers in the Age of Marketing 3.0"**, *Journal of World Marketing Summit*, 1(1), 133-143.

WORKING PAPERS (Abstracts in Appendix)

Lim, Jooyoung and Hahn, Minhi, **"Linking consumers' chronic regulatory focus to decision rules"** (Job Market Paper based on Dissertation Essay 2; under review at *Journal of Marketing Research*)

Lim, Jooyoung and Hahn, Minhi, **"Do the Market Looks Different if Consumers Are Viewed as Emotionally Rational?"** (Dissertation Essay 1)

Cho, Yongwoo, Choi, Daejin, **Lim, Jooyoung**, Han, Jinyoung, Park, Eunil, Kwon, Ted "Taekyoung",
"Mapping the Network of Brands on Pinterest: A Graph Theory Approach"

SELECTED RESEARCH IN PROGRESS

"Economic Choice Model with a Psychological Constraint of Anticipated Regret" with Jaehwan
Kim. (Simulation study in progress after model development)

"Visualizing the Impact of Influencer Marketing: An Evidence from Instagram" with Jinyoung
Han, Eunil Park, Jiwoon Kang, Seungbae Kim. (Empirical analysis of image and text data from
Instagram in progress)

**"1+1 vs. 2 in 1, The number of tickets Matters for Ticket Redemption Rate: An Evidence from
Field Experiment"** with Jeonghye Choi, Yeohong Yoon, Yeorim Yoon. (Field experiment data
analysis in progress)

SCHOLARSHIPS, HONORS, GRANTS, AND AWARDS

Ph.D. Fellowship, KAIST College of Business	2014 – 2018
Independent Research Grant, KAIST College of Business	2016 – 2017
Ph.D. Excellent Research Award, KAIST College of Business	2016
Scholarship for graduate study, Ilun Science & Technology Foundation	2011 – 2013
Highest Honors Scholarship (for top 1% undergraduate students), Department of Industrial & Systems Engineering, KAIST	2008
Honors Scholarship, KAIST	2007 – 2011

PRESENTATIONS

**"Choosing for a Different Reason: Random Regret Minimization Discrete Choice Model
in Marketing"**

Brownbag Lunch at Korea University Business School, Seoul, Korea	2017

**"Regulatory focus and decision rules: Are prevention-focused consumers regret
minimizers?"**

Global Marketing Conference, Tokyo, Japan	2018
Brownbag Lunch at Korea University Business School, Seoul, Korea	2017

"Latent class random regret minimization for market structure analysis"

INFORMS Marketing Science Conference, Los Angeles, CA, USA	2017

"Random Regret Minimization Model versus Random Utility Maximization Model: When to Use What in Marketing"

INFORMS Marketing Science Conference, Shanghai, China	2016
Brownbag Lunch at Korea University Business School, Seoul, Korea	2015

TEACHING INTERESTS

Marketing Analytics	Marketing Research	Marketing Models
Business Statistics	Principles of Marketing,	Digital and Social Media Marketing

TEACHING EXPERIENCE

Lecturer, Division of Convergent Engineering, Dankook University, Yongin, Korea

Engineering Management System (PhD Core)	2018

Teaching Assistant, KAIST College of Business, Seoul, Korea
MBA:

Marketing Channels Management	Yongjin Hyun	2017
Marketing Channels Strategy	Yongjin Hyun	2017
Marketing (English)	Minhi Hahn	2017
Financial Marketing (English)	Minki Kim	2016
Financial Marketing (English)	Minhi Hahn	2015
Pricing Strategy	Minki Kim	2015
High Technology Marketing	Minhi Hahn	2014
Entertainment Marketing	Sung-Ah Ahn	2014

Doctoral:

Quantitative Models for Marketing Decisions (English)	Minhi Hahn	2016
Quantitative Models for Marketing Decisions (English)	Minki Kim	2014, 2015

Course, KAIST College of Business, Seoul, Korea

Teaching Effectiveness in English	2014

ACADEMIC SERVICE

Ad-Hoc Reviewer
Journal of Global Scholars of Marketing Science

Professional Activities
Conference Volunteer, Korean Association of Fair Economy, 2017 – 2018

PROGRAMMING SKILLS

R, Matlab, STATA, SPSS, SAS, WinBugs, SQL, LaTeX

LANGUAGE

English (Native)   **Korean** (Native)

PROFESSIONAL AFFILIATION

American Marketing Association   Korean Marketing Association

SELECTED DOCTORAL COURSEWORK

Marketing and modeling

Advanced Issues in Marketing	Minhi Hahn
Quantitative Models for Marketing Decisions	Minhi Hahn
Marketing Data Analysis	Moonyoung Kang
Marketing Theory	Chanjeen Lee
Doctoral Seminar in Quantitative Marketing	Jaehwan Kim
Advanced Research Seminar in Marketing	Greg Allenby
Decision Analysis Theory and Application	Jaehyun Ahn
Mathematical Programming	Kunsoo Park

Research methodology and statistics

Research Methods in Behavioral Science	Byungho Park
Research Methodology for Management	Wonsuk Oh
Statistical Decision Analysis and Forecasting	Hoe Kyung Lee & Duk Bin Jun
Econometrics	Hoe Kyung Lee
Data Mining	Byungchun Kim
IT Industry Analysis	Hoon Hahn

REFERENCE

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APPENDIX: WORKING PAPER ABSTRACTS

Lim, Jooyoung and Hahn, Minhi, **"Linking consumers' chronic regulatory focus to decision rules"**

Job Market Paper (Dissertation Essay 2)

Under review at *Journal of Marketing Research*

The authors introduce the Random Regret Minimization discrete choice model, which assumes the emotional rationality of a decision-maker, into consumers' decision-making area. Then, the potential consumer-specific drivers of the decision rules between utility maximization and regret minimization are scrutinized to gain a better understanding of consumers' decision-making processes. Drawing on regulatory focus theory, chronically prevention-focused consumers are predicted to be more likely be regret minimizers, given that they are more inclined to minimize negative outcomes. Conversely, chronically promotion-focused consumers are predicted to be more likely be utility maximizers, given that they are more inclined to maximize their opportunities and outcomes. By employing a finite-mixture modeling approach to simultaneously incorporate different decision-making mechanisms and relate it behavioral construct, supports for the hypothesis as well as ascertain that there exists a significant portion of regret-minimizing consumers that might show different preferences for product design in the marketplace are found. The empirical findings highlight the importance of incorporating segments of consumers making decisions for different reasons as may require different marketing strategies for product design and positioning.

Lim, Jooyoung and Hahn, Minhi, **"Do Market Looks Different if Consumers Are Seen as Emotionally Rational?"** (Dissertation Essay 1)

Despite the increasing attention on the random regret minimization (RRM) discrete choice model, which assumes emotional rationality, in disciplines such as healthcare and transportation, relatively little effort has been devoted to incorporating preference heterogeneity into RRM. Due to the associated marketing implications, identifying the segments of consumers in the market based on consumers' preferences is one of the most important issues in marketing. Thereby, we employ latent class modeling approach to deal with preference heterogeneity in RRM and investigate its importance for the market segmentation. Simulation study demonstrates that imposing incorrect data-generating process assumptions in model estimation results in not only biases in estimates but also a significant deterioration in the model fits. Additionally, using a stated preference data of US consumers, we find that unique insights into consumer preferences and market segments (i.e., profiles of consumers) can be extracted from RRM as compared to the conventional model, especially when preference heterogeneity is incorporated via a latent class modeling approach. Finally, we compare and discuss the different managerial implications from the two choice models.

Cho, Yongwoo, Choi, Daejin, **Lim, Jooyoung**, Han, Jinyoung, Park, Eunil, Kwon, Ted "Taekyoung", **"Mapping the Network of Brands on Pinterest: A Graph Theory Approach"**

Pinterest is a pinboard-style content-sharing platform where users can collect, exhibit, and share content (called "pins"). Notwithstanding its increasing popularity, research has paid little attention to the sources (i.e., brands) themselves, from where users fetch content. In this research, we address the following question: How is the world of brands structured in users' minds? To answer, we first propose a Source Relational Network (SRN) where, using graph theory, the vertex is defined as a pair of a brand and its corresponding category and the edge defined as a relation between two vertices. We propose a methodology where we visualize the network of brands based on common user interest that provides an alternative approach to perceptual mapping. We further conducted a trace-driven measurement study with large-scale Pinterest data (1.6 million pins shared by 1.1 million users) that we collected and analyzed for: (1) the relations between two vertices in the SRN and (2) the structural properties of the SRN. Not only did we find that users with a common interest in a category are more likely to fetch images from different brands, but we also found that vertices (i.e., brands) in the SRN have a strong tendency to form groups/communities. To the best of our knowledge, this is the first work of its kind that examines the relations of brands by a large number of Pinterest users. Finally, we conclude with a discussion on the theoretical and practical implications of the proposed methodology.

APPENDIX: PUBLICATION ABSTRACTS

Park, E., **Lim, J.,** and Cho, Y. (2018). **"Understanding the Emergence and Social Acceptance of Electric Vehicles as Next-Generation Models for the Automobile Industry",** *Sustainability*, 10(3), 662.

This study explores potential factors of drivers' intentions to use electric vehicles and proposes an integrated adoption model. Results of a structural equation modeling analysis with 988 samples indicate that drivers' intentions are predicted by one negative factor (cost) and three positive ones (satisfaction, usefulness, and attitude). In addition, the total standardized effects of potential factors on the intention are computed. The current study also validates the original technology acceptance model. Based on the results of the current study, practical and academic implications with potential limitations are examined and presented.

Lim, J., Kim, M., and Go, G. (2017). **"Do Media Type and Time of Day Matter in Social Media Engagement? The Case of the Music Industry",** *International Telecommunications Policy Review*, 24(1), 105-124.

Despite the increasing interest and need of marketers for planning effective social media engagement, there has been relatively limited academic attention on examining the role of the when and what elements of social media marketing. This study proposes a modeling framework which can address the role of the time stamp and media type in social media engagement. Based on the elaboration likelihood model (Petty & Cacioppo, 1986) for information processing, we conjecture that media type and time-of-day will simultaneously matter in social media engagement. By text-mining Twitter data for a new brand in the music industry, we empirically investigate how consumer preferences for different media types (e.g., video, picture, and online news) can vary across the time of day. We find that unobserved consumer heterogeneity for media type preferences should be incorporated to simultaneously examine the when and what elements in consumers' social media engagement. As our data is from the music industry, non-text based media types are generally preferred over text-based media types. Among non-text based media types, video is preferred over picture in the morning, whereas picture is preferred over video in the daytime. Moreover, text-based media types are preferred early in the day compared to later in the day.

Hahn, M. and **Lim, J**. (2015). "**True Partnerships between Consumers and Marketers in the Age of Marketing 3.0"**, *Journal of World Marketing Summit*, 1(1), 133-143.

Philip Kotler, in the 1960s, has started three important directions in marketing: *integrating the Segmentation-Targeting-Positioning Marketing (STPM) paradigm, broadening marketing into nonprofit sectors*, and *proposing humanistic societal marketing*. The STPM paradigm has been the dominant paradigm in marketing not only in for-profit sectors but also in various nonprofit sectors. The perspective of humanistic societal marketing has received less attention until the 2008 financial crisis. Today's consumers demand marketers to deliver happiness and publics ask them to

incorporate *others-oriented values* contributing to the society. In this article, we discuss true partnerships between consumers and marketers that can deliver such happiness and social contributions. We present a framework called *True Partnership Marketing (TPM)*. TPM aims at *earning people* rather than profits, at least in short-term periods. By pouring *hearts* into marketing, marketers can earn true partners through delivering happy moments that consumers would memorize for a long time. The partnerships can be *reinforced* by managing experiences with hearts generating feelings like *gratification* or *gratitude*. Also, marketers can *enrich* the partnerships by working on partnered activities that contribute to social values. Korean marketers are familiar with pouring their hearts into marketing. Their main strengths come from such marketing. However, from the perspective of TPM, they need to do better in many areas including reinforcing partnerships and partnering with consumers in social contribution activities. We summarize the discussion by listing to-do's for marketers implementing TPM in the age of Marketing 3.0.