# J. JASON BELL

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## **EDUCATION**

<b>Ph.D. in Business Administration</b> – <b>Marketing</b> University of Iowa	2018 (Expected)
Master of Science in Economics University of Iowa	2012
Bachelor of Science in Economics Brigham Young University	2010

#### **RESEARCH INTERESTS**

Consideration sets, durable goods, econometric modeling, product design, new product development.

## DISSERTATION

#### "The Effects of Competition on Choice"

#### Proposal defended April 2017.

Choices reflect competition. When an agent makes a choice in a market, that choice often reveals something about the strategic landscape. Because choice data are commonly available, the ability to harvest competitive information from them is an important component of marketing. However, this process can be quite difficult because competition is not directly observable, and instead must be extracted carefully from the data with the aid of theory. Often the contextual nuances of a problem place demands on modeling, estimation, and identification. This dissertation deals with two related such cases, specifically where functions of observed data have discontinuities, or jumps. One example, studied in Essay 1, is an allocation model where the decision spaces of agents are partly discrete and partly continuous. A second example, studied in Essay 2, is a model of consideration set formation where agents screen out alternatives at sharply defined thresholds. Both essays showcase the power of econometric modeling for gaining insights about competition from choices.

Committee: Gary J. Russell (Chair), Professor of Marketing, University of Iowa Thomas S. Gruca, Professor of Marketing, University of Iowa Fred M. Feinberg, Professor of Marketing, University of Michigan Sang Hak Lee, Assistant Professor of Marketing, Arizona State University Ying Yang, Assistant Professor of Marketing, University of Iowa

Essay One: Reaching Rural Heart Patients: A Spatial Allocation Game with Competition Essay Two: An Empirical Model of Screening Rule Choice (Job Market Paper)

Extended abstracts for these essays can be found on page 5.

## WORKING PAPERS

Bell, J. Jason, Sanghak Lee, and Gary J. Russell, "An Empirical Model of Screening Rule Choice" (Job Market Paper)

To be submitted to Marketing Science.

Bell, J. Jason and Gary J. Russell "Demographics and Consideration Set Size" To be submitted to Marketing Letters.

Bell, J. Jason and Thomas S. Gruca "Hardware and Software Integration in Two-Sided Markets" To be submitted to Management Science, February 2018. Last complete revision available on ResearchGate: http://bit.ly/2sn6oXA

Bell, J. Jason, Sanghak Lee, and Thomas S. Gruca "Reaching Rural Heart Patients: A Spatial Allocation Game with Competition"

To be submitted to Marketing Science.

## WORK IN PROGRESS

Pescher, Christian, J. Jason Bell, and Gerry Tellis "Automated Idea Screening with Natural Language Processing"

Preliminary Results.

Bell, J. Jason, JaeHwan Kwon, Dhananjay Nayakankuppam and Dan Ventura "A Human and Computer Hybrid Intelligence System for Product Idea Generation" Data collection in progress.

Xu, Yixiang, J. Jason Bell, and Dhananjay Nayakankuppam "A Dual Evaluation Framework for Modeling Aesthetics in Product Choice" *Data collection in progress.* 

## PRESENTATIONS

"An Empirical Model of Screening Rule Choice," ISMS Marketing Science Conference, Los Angeles, CA, June 2017

"An Empirical Model of Screening Rule Choice," Haring Doctoral Symposium, Bloomington, IN, April 2017

"Reaching Rural Heart Patients: A Spatial Allocation Game with Competition," ISMS Marketing Science Conference, Baltimore, MD, June 2015

# AWARDS AND HONORS

Sheth Fellow, University of Iowa, 2017

Paul D. Converse Symposium, University of Illinois at Urbana-Champaign, 2016

Graduate College Post-Comprehensive Research Award, University of Iowa, Fall 2016

Ponder Summer Fellowship, University of Iowa, 2014 - 2016

## TEACHING INTERESTS

Marketing Analytics, Marketing Research, Product and Pricing Management, Marketing Strategy

# TEACHING EXPERIENCE

Head Teaching Assistant	Fall $2016 - current$
Introduction to Marketing Strategy	
– Managed seven other TAs	
– Collaborated on assignment design	
– Proofread and influenced test design	
<b>Co-Instructor</b> (11 semesters)	Fall 2010 – current
Introduction to Marketing Strategy	
– Led weekly discussion sections	
– Teaching evaluations: $4.4/6.0$ , Fall 2015; $4.8/6.0$ , Fall 2016	
Money, Banking and Financial Markets	
– Led weekly discussion sections, explained problem sets	
– Occasionally gave main lecture to roughly 200 students	
Statistics for Strategy Problems	
– Led weekly discussion sections, explained problem sets	
ROFESSIONAL EXPERIENCE	

## $\mathbf{P}$

Financial Services Department, Brigham Young University July 2008 - May 2010 Auditor

- Conducted transaction audits

# DOCTORAL COURSEWORK

Marketing	Seminar in Consumer Behavior I, II	Dhananjay (DJ) Nayakankuppam
	Seminar in Marketing Models I, II	Gary J. Russell
	Product and Pricing Decisions (MBA course)	John Murry
	Strategic Brand Management (MBA course)	John Murry
Statistics	Bayesian Analysis	Aixin Tan
	Computer Intensive Statistics	Luke Tierney
	Measurement Theory and Methods	Ernest H. O'Boyle
	Multivariate Statistics	Dale Zimmerman
Economics	Econometrics I, II	Thomas Parker
	Microeconomics I	Ayça Kaya
	Microeconomics II	Hari Govindan
	Macroeconomics I	Gustavo Ventura
	Macroeconomics II	Guillaume Vandenbroucke
	Economic Analysis I	Hari Govindan
	Economic Analysis II	Yuzhe Zhang

## WORKSHOPS

Workshop on Quantitative Marketing and Structural Econometrics, Northwestern University, 2015 Workshop on Quantitative Marketing and Structural Econometrics, Duke University, 2013

## REFERENCES

#### Gary J. Russell

Henry B. Tippie Research Professor of Marketing University of Iowa Tippie College of Business Iowa City, IA 52242 Email: gary-j-russell@uiowa.edu Phone: (319)335-0993

## Thomas S. Gruca

Professor and Faculty Director, MBA Marketing Career Academy University of Iowa Tippie College of Business Iowa City, IA 52242 Email: thomas-gruca@uiowa.edu Phone: (319)335-0946

#### Fred M. Feinberg

Joseph Handleman Professor of Marketing University of Michigan Ross School of Business Ann Arbor, MI 48109 Email: feinf@umich.edu Phone: (734)764-4711

## Sanghak Lee

Assistant Professor of Marketing Arizona State University Carey School of Business Tempe, AZ 85287 Email: sanghak.lee@asu.edu

## Nancy J. Abram (Teaching Reference)

Lecturer of Marketing University of Iowa Tippie College of Business Iowa City, IA 52242 Email: nancy-abram@uiowa.edu Phone: (319)335-0986

## TECHNICAL SKILLS

Computer Languages/Software	R, Python, Stata, C++, C, Latex,
	HTML, CSS, Matlab
Tools	Git, GitHub, spaCy, BeautifulSoup
Proficiencies	Natural language processing,
	basic machine learning, web scraping,
	data mining

## APPENDIX

## DISSERTATION

## "The Effects of Competition on Choice"

Proposal defended in April, 2017

Choices reflect competition. When an agent makes a choice in a market, that choice often reveals something about the strategic landscape. Because choice data are commonly available, the ability to harvest competitive information from them is an important component of marketing. However, this process can be quite difficult because competition is not directly observable, and instead must be extracted carefully from the data with the aid of theory. Often the contextual nuances of a problem place demands on modeling, estimation, and identification. This dissertation deals with two related such cases, specifically where functions of observed data have discontinuities, or jumps. One example, studied in Essay 1, is an allocation model where the decision spaces of agents are partly discrete and partly continuous. A second example, studied in Essay 2, is a model of consideration set formation where agents screen out alternatives at sharply defined thresholds. Both essays showcase the power of econometric modeling for gaining insights about competition from choices.

# Essay One: Reaching Rural Heart Patients: A Spatial Allocation Game with Competition

We develop and estimate a model of strategic allocation that allows for entry and constrained quantity across a discrete set of alternatives. We apply our model to a novel data set involving outreach decisions by cardiology practices in the Des Moines, Iowa region. Using this dataset, we estimate the degree to which competition influences allocation decisions. We address the problem of multiple equilibria using a two-step estimator. While this study is the first to model and estimate an allocation game, the methods can be used in a wide range of marketing settings. The empirical results suggest that firms consider competitor activity when making outreach decisions. This result implies that traditional models of sales resource allocation should incorporate competition.

# Essay Two: An Empirical Model of Screening Rule Choice (Job Market Paper)

Consideration sets contain a wealth of information about competition between alternatives and brands. Consideration set formation is often thought to proceed using non-compensatory rules, which very often include discontinuities. Because of this, modeling consideration sets can be challenging. In this essay, we overcome this challenge with a model where consumers choose from among a set of rules, and evaluate the rules by anticipating their impact. Our econometric specification allows us to simulate the screening behavior of consumers, understand patterns of brand competition, and perform counterfactuals. We estimate the model with Bayesian techniques using a unique dataset from the automobile industry where considerations sets are observed.