Xiaoqian (Elsa) Yu

(Feb 2016)

Department of Marketing
Marshall School of Business
University of Southern California

Email:xiaoqiay@usc.edu
Cell: 323-646-0630

EDUCATION

Ph.D. in Marketing, University of Southern California, USA, 2017 expected
M.S. in Engineering, Ecole Centrale de Lyon, France, 2011
M.S. in Decision Sciences, Southwest Jiaotong University, China, 2011
B.S. in Civil Engineering, Southwest Jiaotong University, China, 2008

RESEARCH INTERESTS

Crowdfunding, Interdependent Consumer Decisions, Effort-based Incentives, Empirical IO, Structural Modeling, Bayesian Econometrics, Behavioral Economics

DISSERTATION

Yu, Xiaoqian, Yi Zhao and Sha Yang, "Crowding-In or Crowding-Out? A Dynamic Model of Individual and Organizational Donor's Voluntary Contribution to Pubic Goods on Crowdfunding Platform." (Job Market Paper)

Committee members: Sha Yang (Chair), Anthony Dukes, Botao Yang

OTHER PAPERS

Yu, Xiaoqian, Sha Yang and Yi Zhao, "Modeling Consumer Crowdfunding Behaviors Under Effort-based Incentives." (Revise and Resubmit, in revision to be under 2nd round review at *Marketing Science*)

Yu, Xiaoqian, Sha Yang and Lian Jian, "When and How Monetary Incentives Serve As A Double-Edged Sword." (Manuscript in preparation to be submitted to *Journal of Marketing Research*)

CONFERENCE PRESENTATION

"Emotion States and Multi-tasking: Horizontal and Temporal State Dependence on Consumer Media Choice," 34th ISMS Marketing Science Conference, Boston, MA, June, 2012

HONORS AND AWARDS

AMA-Sheth Foundation Doctoral Student Consortium Fellow, 2016
33rd University of Houston Marketing Doctoral Symposium Fellow, 2015
Zurich Initiative on Computational Economics (ZICE) Workshop Fellow, 2015
Quantitative Marketing and Structural Econometrics Workshop Fellow, 2013
INFORMS Marketing Science Doctoral Consortium Fellow, 2012
Young Ambassador of Rhone-Alpes in France, 2008
Academic Scholarship, Southwest Jiaotong University, 2008-2011
Eiffel Scholarship, French Ministry of Foreign Affairs, 2006-2008

TEACHING EXPERIENCE

Instructor, Marketing Fundamentals (Undergraduate Core), USC, 2015
Teaching Assistant, Direct Response and Internet Marketing, USC, 2014
Teaching Assistant, Marketing Fundamentals, USC, 2013

PROGRAMMING AND LANGUAGE SKILLS

Fluent Languages/Platforms/Packages: R, RCPP, C, SAS, WinBUGS
Competent Languages/Platforms: MySQL, MATLAB, Visual Studio, OpenMP
Mandarin (Native), English (Fluent), French (Basic)

TEACHING INTERESTS

Principles of Marketing, Marketing Research, Internet Marketing, Quantitative Models

SELECTED DOCTORAL COURSEWORK

Advanced Quantitative Models in Marketing	(Anthony Dukes & Sha Yang)
Strategic and Marketing Mix Models	(S. Siddarth & Gerard Tellis)
Marketing Models in Consumer and B2B Markets	(Anthony Dukes & Shantanu Dutta)
Buyer Behavior and Interorganizational Marketing	(Kristin Diehl)
Consumer and Organizational Buying Behavior	(Joseph Priester)
Dynamic Programming and Markov Decision Processes	(Amy Ward)
Empirical Methods for Industrial Organization	(Matthew Shum)
Generalized Linear Models for Business Applications	(Peter Radchenko)
Probability and Statistics for Economists	(Geert Ridder)
Applied Econometrics	(Cheng Hsiao)
Practice of Econometrics	(Geert Ridder)
Microeconomic Theory I – Game Theory	(Juan Carrillo)
Selected Issues in Economic Theory I – Microeconomics	(Anthony Marino)
Bayesian Statistics	(Peter Rossi)

ABSTRACTS

"Crowding-In or Crowding-Out? A Dynamic Model of Individual and Organizational Donor's Voluntary Contribution to Pubic Goods on Crowdfunding Platform," with Yi Zhao and Sha Yang (Job Market Paper)

Over the past few years, crowdfunding has become an increasingly popular practice of funding a project by raising monetary contributions from a large number of people. In 2014, the crowdfunding industry raised over $16.2 billion worldwide. Typically, a crowdfunding project has a predetermined funding goal and deadline, and during the funding drive, people make a contribution decision based on the observed funding status such as current raised funding amount, funding time left, number of previous contributors or even detailed contribution history etc. In this paper, we collect data from a novel journalistic crowdfunding platform that raises money for public goods. On this platform, a project can receive funding from two types of contributors: individuals and organizations (/firms). Hence, a contributor can observe the funding status information from two different sources. Usually, organizations make a large contribution in a single time. This particular funding context leads to some interesting questions: how organizational contribution affects individual contribution? Does it crowd in or crowd out individual contribution? Is it a good idea for this crowdfunding platform to disclose organizational contribution? Drawing on the theory of dynamic provision to public goods, we build a dynamic structural model with individual warm glow effect and solve it using numerical dynamic programming techniques. The model is flexible enough to handle funding deadlines and project reward schemes based on the final funding result (i.e., whether a project achieves the funding goal or not), all of which are ubiquitous in crowdfunding setting. The model explicitly incorporates the dynamics induced by these aspects in contributor behavior. We apply the model to a rich dataset that comprises the complete details of contribution history, funding project and donor characteristics. We use the model to evaluate the impact of changes to the extant funding result based reward scheme and the impact of changes to the extant organization/firm contributions on individual contributions. More generally, our results fit into a growing literature that illustrates that dynamic programming-based solution, when combined with structural empirical specifications of behavior, can help significantly improve decision-making, and crowdfunding platform performance.

"Modeling Consumer Crowdfunding Behaviors Under Effort-Based Incentives," with Sha Yang and Yi Zhao (Revise and Resubmit, in revision to be under 2nd round review at *Marketing Science*)

Effort-based incentives, wherein consumers can complete tasks to earn rewards, have now emerged as a popular promotional tool in marketing. Effort-based incentives possess two unique features. First, since getting a reward is not effortless, consumers face a decision of how many incentive tasks to participate to earn reward. Second, since effort-based incentives allow individuals to turn effort into a monetary reward, and such reward can then immediately relax an individual participant's budget and consequently influence consumer behavior (e.g., contribution in our context). We propose a model to investigate how effort-based incentives affect individual contribution behavior in the context of journalism crowdfunding. In particular, we develop a unified utility maximization framework to simultaneously model two interdependent consumer decisions in the crowdfunding context with effort-based incentives: contribution decision (i.e. how much to contribute) and incentive participation decision (i.e. how many incentives tasks to participate in). We also incorporate dynamics by modeling consumer reward accumulation and budget evolvement over time. Since incentive participation directly affects budget, the optimal contribution and incentive participation amount involve a complex simultaneity. We adopt a two-step estimation approach to cope with the simultaneity issue, and changes-in-variable method to obtain the likelihood and to address the implicitness issue. We use the Bayesian method to make model inference so that we can conveniently account for the multiple-constraint requirement and unobserved heterogeneity. Using data from a pioneering crowdfunding platform for journalism, we find that effort-based incentives tend to increase contribution amount for those individuals with smaller baseline budget, and for those with higher baseline budget, incentives tend to increase their contribution amount if they have lower contribution preference. Our counterfactual analysis leads to important managerial implications on effective use of effort-based incentives.

"When and How Monetary Incentives Serve As A Double-Edged Sword," With Sha Yang and Lian Jian (Manuscript in preparation to be submitted to *Journal of Marketing Research*)

This paper exams when and how monetary incentives affect crowdfunding performance. Using a simple yet stylized structural model, we identify the channels through which the monetary incentives influence the funding performance. We construct two measures to quantify the crowdfunding performance: number of contributions attracted within a unit time period, and the contribution amount. Drawing on both economic and psychology theories, our study shows that (1) monetary incentives have a market expansion effect by attracting a larger number of contributions in a unit of time period, and (2) monetary incentives can increase contribution amount when the expected reward from the monetary incentives is higher than a certain threshold, but can also have a detrimental impact on contribution when the expected reward is too small. Taken together, these findings suggest that monetary incentives can both favorably and adversely affect the overall contribution amount raised for a crowdfunding project, serving as a double-edged sword.

References

Sha Yang (Chair)
Professor of Marketing
Marshall School of Business
University of Southern California
Los Angeles, CA 90089-0403
Tel: 213-740-3902
Email: shayang@marshall.usc.edu

Anthony Dukes
Associate Professor of Marketing
Marshall School of Business
University of Southern California
Los Angeles, CA 90089-0403
Tel: 213-740-3846
Email: dukes@marshall.usc.edu

Botao Yang
Assistant Professor of Marketing
Marshall School of Business
University of Southern California
Los Angeles, CA 90089-0403
Tel: 213-740-7691
Email: botaoyan@marshall.usc.edu

Yi Zhao
Assistant Professor of Marketing
Robinson College of Business
Georgia State University
Atlanta, GA 30303
Tel: 404-413-7671
Email: yizhao@gsu.edu