Xing ZHANG

Contact Information

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Current Position

Postdoctoral Researcher — 2015 – now
Swiss Federal Institute of Technology (ETH) in Zürich

Research Interests

Substantive: Judgment and Decision-Making, Learning, and Choice Architecture Design
Methodological: Field/Laboratory Experiment, Quantitative Modeling

Education

Ph.D in Marketing
National University of Singapore, Singapore — 2009 – 2015

Visiting Student
Haas School of Business, UC Berkeley, U.S.A. — 2013 Fall

B.A. in Economics
Jinan University, Guangzhou, China — 2003 – 2007

Publications

- Onn Siong Yim*, **Xing Zhang***, Idan Shalev, Mikhail Monakhov, Songfa Zhong, Ming Hsu, Soo Hong Chew, Poh San Lai, and Richard P. Ebstein (2016), "Delay Discounting, Genetic Sensitivity, and Leukocyte Telomere Length", ***Proceedings of the National Academy of Sciences, USA*** (*Co-first Authorship and Corresponding Author).
  Media coverage: *the Times, the Telegraph, the Daily Mail, Huffington Post, Xinhua News Agency, People.com.cn, Asian Scientists.*

- Maurice Schweitzer, Teck-Hua Ho, and **Xing Zhang** (2016),"How Monitoring Influences Trust: A Tale of Two Faces", ***Management Science***.

Papers Under Revision

- **Xing Zhang**, Mikhail Monakhov, Poh San Lai, Soo Hong Chew, and Richard P. Ebstein, "Does Oxytocin Promote Impulsive Buying?", *under the 2nd round revision at* ***Marketing Letters***.
- "BMI is Negatively Associated with Telomere Length – A Collaborative Cross-sectional Meta-analysis of 87 Observational Studies", *under the 2nd round revision at* ***American Journal of Clinical Nutrition*** (Impact Factor = 6.77) with Gielen Marij et al..

Working Papers

- Teck-Hua Ho, Hang Wu, and **Xing Zhang**, "Incorporating the Sunk Cost Fallacy and Consumer Choice into Designing Price Discounts – A Large Field Experiment" *in preparation for submission to* ***Journal of Marketing Research***

- **Xing Zhang**, Juin Kuan Chong, Ganesh Iyer, and Xiaoyan Xu, "Paying Enough to Go to the Gym – Sunk Cost Fallacy, Self-control, and Price Contract Design" *in preparation for submission to **Marketing Science***
- **Xing Zhang** and Jeeva Somasundaram, "Consumer Learning in Response to Cyber-Fraud – A Field Experiment".
- **Xing Zhang** and Songfa Zhong "Using Coin Flipping to Resolve Choice Conflict – Evidence from Field and Lab Experiments"
- Teck-Hua Ho, Ming Hsu, **Xing Zhang**, and Songfa Zhong, "Understanding Other-regarding Mechanisms in Heterogeneous Populations."

Work-in-progress

- "Phishing for Phools: Image Concern and Response to Cyber-Fraud" joint with Teck-Hua Ho (*Data collection in progress*)
- "Reputation Concern and Fake News Consumption" – Joint with Ganesh Iyer

Book Chapter

Richard P. Ebstein, Yushi Jiang, **Xing Zhang**, and Soo Hong Chew "Genetics, Personality and Health Behaviors" in *Behavioral Genetics of Temperament and Personality* edited by Kimberly J. Saudino and Jody M. Ganiban, Springer, forthcoming.

Awards and Fellowships

The First Prize in Poster Presentation, NUS Business School Annual PhD Research Day, 2015 (Consolation Prize in 2013 and 2014).
AMA-Sheth Foundation Doctoral Consortium Fellow, Northwestern University, 2014.
"High Pass" in Ph.D Qualifying Exam, NUS Business School, 2011.
The First-Class Scholarship for Excellent Student, Jinan University, 2005.
The Best Supporting Actor in English Drama Competition, Jinan University, 2004.

Referee Services

Management Science, Annals of Operations Research, Economics Letters, Theory and Decision

Teaching Experience

Tutor for **Principles of Marketing**, 2015.
(Teaching Evaluation: **4.2/5.0**; Department Average: 4.0/5.0)
TA for **Marketing Research** and **Marketing Management**, 2013.
Guest lecturer in **Behavioral and Experimental Economics**, 2010.
Part-time guitar tutor, 2006-2007

Languages

To Human: Chinese (native), English (fluent).
To Computer: R, Python, Stata

References

Juin Kuan Chong
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Vice Dean of Business School
National University of Singapore
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Professor of Economics
ETH Zurich
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Selected Coursework in PhD Program

Empirical Modeling

Econometric Modeling I	Heejoon Han
Econometric Modeling II*	Tong Li (Vanderbilt U) & Tatsushi Oka
Marketing Seminar (Choice Models and Applications I)	Surendra Rajiv
Marketing Seminar (Choice Models and Applications II)	Junhong Chu
Marketing Seminar (Topics in Empirical Choice Models)*	Hai Che (Indiana U)
Dynamic Structural Models in Marketing and Economics	Nan Yang
Microeconometric Models of Consumer Demand*	Jean-Pierre Dubé (Chicago)
Labor Economics (at Berkeley)	David Card

Analytical Modeling

Microeconomics I	Soo Hong Chew
Microeconomics II	Tanjim Hossein
Mathematical Economics	Susheng Wang
Game Theory	Weishi Lim
Marketing Seminar (Marketing Strategy and IO)*	Ganesh Iyer (UC Berkeley)
Special Topics in Marketing II*	Kannan Srinivasan (Carnegie Mellon)

Other Related Coursework

Neuroeconomics *	Ming Hsu (UC Berkeley)
Marketing Seminar (Consumer Decision Processes)	Catherine Yeung
Special Topics in Marketing (Field Experiment)*	Noah Lim (Wisconsin U)
Behavioral and Experimental Economics	Soo Hong Chew

*(Courses with * were offered by visiting professors)*

Abstract of Working Papers

- "Incorporating the Sunk Cost Fallacy into Designing Price Discounts – A Large Field Experiment" (Teck-hua Ho, Hang Wu, and Xing Zhang).

People commit the sunk cost fallacy when their decisions are influenced by costs that have already been incurred and cannot be reversed. The implication of the sunk cost fallacy to price discount is that people tend to consume less of the product when they purchase the product at discounted price. Recently, the gambling- or lottery-type price discount is drawing more and more attention from both practitioners and researchers. It is unclear how this probabilistic price discount affects consumption, and how it differs from the sure price discount with the same cost. In a large-scale randomized field experiment conducted in a museum, we compare the impact of these two price discount schemes on the length of time customers stayed in the museum. We found that the length of stay is more likely to be reduced by the probabilistic price discount than the sure price discount. In another treatment condition, we offered the consumer a choice between these two price discount schemes. We found offering choice increases the length of stay compared to the probabilistic price discount and sure price discount without choice. The results are consistent with diminishing sensitivity to sunk cost and reference-dependent sunk cost effect.

- "Using Coin Flipping to Resolve Choice Difficulty Problem" (Xing Zhang and Songfa Zhong).

  When confronted with difficult choices, individuals often choose to avoid decisions by failing to act, sticking to the status quo, or procrastinating. Here we examine the usage of coin flipping to help resolve choice difficulty in the setting of donation. In a randomized field experiment, we find that coin flipping increases donation when choice is hard due to choosing between two equally attractive charities, but not when choice is relatively easy with matching fund provided to one of the two charities. A laboratory experiment replicates the observed patterns and further sheds light on the underlying psychological mechanism. More generally, our results point to the power of randomization as an effective tool in nudging individuals into making active decisions.

- "Paying Enough to Go to the Gym – Sunk Cost Fallacy, Self-control, and Price Contract Design" (Xing Zhang, Juin Kuan Chong, Ganesh Iyer, and Xiaoyan Xu).

  This paper examines the role of the sunk cost fallacy as a self-commitment device and its implication for optimal price contract design. Consumers evince the sunk cost fallacy if they condition the consumption level on the sunk cost incurred in the past. Our empirical study suggests that consumers are able to anticipate the fallacy associated with the health club membership fee *ex ante*, and hence they may rationally exploit this fallacy to counteract their future self-control problem in health club attendance. Therefore, a firm's optimal price contract has to balance the demand for flexibility due to the sunk cost fallacy and the demand for commitment due to the self-control problem. Our results show that in the market for investment goods such as health club attendance, the sunk cost fallacy may increase or decrease the consumer's expected utility depending on the degree of self-control problem. In the market for leisure goods such as casino gambling, however, the consumer's expected utility is always decreasing with the sunk cost fallacy. Our analysis on optimal two-part tariff contract reveals that the per-visit fee is increasing with the sunk cost fallacy, and sometimes it should be charged higher than the marginal cost in response to the concern of overconsumption problem. Interestingly, the lump-sum fee is decreasing with the sunk cost fallacy in the market for investment goods whereas is increasing with sunk cost fallacy in the market for leisure goods. In equilibrium, the firm internalizes the behavioral biases, and the social welfare is independent of the degree of sunk-cost fallacy and self-control problem. At last, we examine the welfare implication for the consumers who are unaware of their self-control problem, and find that the sunk cost fallacy may mitigate the consumer welfare loss in the market for investment goods.

- "Consumer learning in response to cyber-fraud" (Xing Zhang and Jeeva Somasundaram).

  We study how consumers respond to a common fraudulent practice in the market – scam emails over time. In a field experiment with more than 14,000 email users, we found that repeated experience with one type of scam is mainly helpful for the consumer to deal with the same type of scam, but may backfire when the consumers face a new type of scam. More specifically, one group of users received 3 scam emails in 2 months ostensibly asking users to install a security update, and another group of users – control group, did not receive such emails during this period. Then both groups received a scam email as hotel booking confirmation. We observed that the group had prior experience with security update has significantly higher rate of falling prey to the new scam than the control group. Together with other experimental conditions, we distinguish between knowledge-based learning (e.g., how to identify scam) and belief-based learning (e.g., how likely one will receive certain type of scam). In the email scam context, knowledge-based learning is more essential than belief-based learning.