Lu Yan

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EDUCATION

Krannert School of Management, Purdue University — West Lafayette, IN
Ph.D. in Marketing (Quantitative) — *2017 - 2023(Expected)*

Krannert School of Management, Purdue University — West Lafayette, IN
M.S. in Marketing — *2016 - 2017*

Nanjing University — Nanjing, China
M.E. in Software Engineering — *2012 - 2014*

Nanjing University — Nanjing, China
B.E. in Software Engineering — *2008 - 2012*

EXPERIENCE

The Agricultural Bank of China — Nanjing, China
Financial Manager — *August 2014 - May 2015*

eBay China Development Center — Shanghai, China
Data Scientist (Full-Time Intern) — *April 2013 - April 2014*

Baidu Inc. — Beijing, China
Software Engineer (Full-Time Intern) — *November 2011 - May 2012*

RESEARCH INTERESTS

- Quantitative Marketing
- Causal Inference with Machine Learning
- Social Media Marketing, Influencer Marketing, Digital Platform Economy
- Consumer Sustainability, Crowdfunding Platforms

WORKING PAPERS

- **Impact of Club Store Shopping on Household Food Carbon Footprint**: with Ting Zhu and Li Song (*Job Market Paper*)
- **Donors, Buyers, and Information Disclosure in Crowdfunding Markets: A Case of Platform Split-Up**: with Qiang Liu and Ting Zhu (under review at *Journal of Marketing*)
- **A Data-Driven Framework for Influencer Identification: Impact of Communication Styles and Influencer Types**: with Xing Fang (Second-Round Revision at *International Journal of Advertising*)

RESEARCH IN PROGRESS

- **The Right Communication Styles in Crowdfunding Success or Failure**: with Ting Zhu

TEACHING EXPERIENCE

Instructor

- Marketing Management (Avg. Rating: 4.74/5) — Spring 2019/Summer 2021
  Undergraduate
- Purdue University Teaching Academy Graduate Teaching Award — 2022
- Distinguished Graduate Student Instructor — 2021

Teaching Assistant

- Consumer Behavior & Marketing (Graduate) — Spring 2020/Spring 2022

• Customer Analytics (Graduate)	Spring 2020/2021/2022
• Applied Marketing Analytics (Graduate)	Fall 2018
• Experiential Marketing (Undergraduate)	Spring 2018

Teaching Interests

Digital Marketing, Social Media Marketing, Data-Driven Marketing, Customer Analytics, Marketing Analytics, Marketing Research

HONORS AND AWARDS

• The Purdue Research Foundation (PRF) Research Grants (One-Year Stipend and $7,000 Bonus)	2020-2021
• Best Presentation at Krannert Ph.D. Research Symposium	2020
• Krannert Doctoral Research Funds ($1,320)	2020
• Graduate Assistantship, Krannert School of Management	2017-2020

CONFERENCE AND WORKSHOP PRESENTATION

- **Krannert Ph.D. Research Symposium, West Lafayette, IN** October 2022
  "Household Food Carbon Footprint"
- **ISMS Marketing Science Conference, Virtual** June 2022
  "Impact of Club Store Shopping on Household Food Carbon Footprint"
- **Marketing Seminar, West Lafayette, IN** December 2021
  "Impact of Club Store Shopping on Household Food Carbon Footprint"
- **ISMS Marketing Science Conference, Virtual** June 2021
  "Donors, Buyers, and Information Disclosure in Crowdfunding Markets: A Case of Platform Split-Up"
- **Krannert Ph.D. Research Symposium, West Lafayette, IN** October 2020
  "Donors, Buyers, and Information Disclosure in Crowdfunding Markets: A Case of Platform Split-Up"

TECHNICAL SKILLS

- **Programming Languages:** Python (incl. Pytorch, TensorFlow and other ML/DM/DL tech), R, SAS, Java
- **Other Tech:** Stata, SQL, Web Scraping, MATLAB, Data Visualization(Tableau)

SELECTED PHD COURSEWORK

- **Marketing:** Seminar in Marketing Models, Marketing Workshop, Foundations of Advanced Quantitative Marketing (at the University of Chicago)
- **Economics:** Microeconomics I & II, Economics of Information, Industrial Organization, Advanced Game Theory
- **Econometrics and Quantitative Methods:** Mathematical Analysis for Economists, Probability and Statistics, Econometrics I & II, Bayesian Econometrics I
- **Statistics:** Computational Statistics
- **Computer Science:** Natural Language Processing (audited)

RESEARCH ABSTRACTS

- **Impact of Club Store Shopping on Household Food Carbon Footprint,** with Ting Zhu and Li Song
  (Job Market Paper)

  Climate change is having a consequential effect on the environment, and shopping choices in daily life can intensify or lessen a household's impact on the environment. Because the food system is responsible for 34% of global carbon emissions, what to eat and where to purchase food influence a household's food carbon footprint. With their unique shopping environment (e.g., lower prices, larger package sizes, membership fees), club stores play a significant role in households' food purchases. In this study, we examine whether and why shopping at warehouse club stores affects a household's food carbon footprint. Using the process-based Life Cycle Assessment (LCA) model and Nielsen Consumer Panel data, we calculate the household food carbon footprint between 2007 and 2017 and measure the effect of shopping at club stores on household carbon life. To address the concerns about self-selecting into the club store shopping treatment, we implement a recently advanced machine learning method of causal inference—generalized synthetic control (GSC)—to identify the causal treatment effect. We find a consistent average treatment effect in which households generate 9-15% more per capita carbon emissions quarterly since purchasing groceries at club stores. Moreover, we investigate whether the unique store shopping environment of club stores explain the increases in household food carbon emissions, but those impacts are not consistent across categories. We also observe the heterogeneous treatment effect that the club store carbon effect is more significant for households with smaller sizes or lower income levels.To the best of our knowledge, this is the first research introducing the carbon emission calculation model and exploring the sustainability of household grocery shopping in the marketing area. Our implementation with the GSC method also enriches the applications of causal inference with ML algorithms in a marketing setting. Our findings provide practical implications for policymakers and grocery retailers.

- **Donors, Buyers, and Information Disclosure in Crowdfunding Markets: A Case of Platform Split-Up,** with Qiang Liu and Ting Zhu

  Crowdfunding platforms are a fast-growing approach for entrepreneurs to finance their new product developments. Improving crowdfunding campaigns' performance with more diverse participants, however, is difficult. In this paper, the authors investigate how platform specialization changing in platform size and backers' composition (donors vs. buyers) influences platform participant behaviors and campaign outcomes with the Indiegogo platform split-up. Their results show a higher probability of reaching funding goals for campaigns on a reward-based platform (main platform) after the launch of a new donation-based platform. Crowdfunding platform participants' strategic responses to the platform split-up drive such improvements in crowdfunding outcomes. First, fewer campaigns are launched on the main platform after the platform split-up. Second, creators provide more visual campaign information (i.e., images and videos here) to mitigate information asymmetry that is more of a concern after the platform split-up as a larger proportion of backers becomes buyers, who are more sensitive to such visual information than donors. These findings are consistent with the notion that potential backers' motivations for supporting a campaign drive creators' information disclosure strategy. The study provides important managerial implications for platforms and participants.

- **A Data-Driven Framework for Influencer Identification: Impact of Communication Styles and Influencer Types,** with Xing Fang

  Identifying the right influencers for brands is key to a successful social media marketing campaign. This study proposes a data-driven framework to examine the value of communication styles in social media engagement. We use a sample of over 28,000 real Facebook influencers spanning from nano to mega-influencers. We find that communication styles, narrative styles, and intentions extracted by text mining algorithms from influencers' posted messages affect social media engagement and social interactions. We also reveal that the impacts of communication style on audience engagement are moderated by influencer types (i.e., nano, micro, macro, and mega-influencers). Our research provides managerial insights for brands to consider carefully social media communication styles when collaborating with influencers.

REFERENCES

- **Ting Zhu (Chair)**

  Professor of Management, Jack A. Hockema Chair in Management
  Krannert School of Management
  Purdue University
  Email: zhu640@purdue.edu
  Phone: (765)-454-5594

- **Qiang Liu**

  Associate Professor of Management
  Krannert School of Management
  Purdue University
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- **Federico Rossi**

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