Lu Yan

Krannert School of Management, Purdue University, West Lafayette, IN 47907
Phone:(765)-430-5133 | Email: yan245@purdue.edu Personal Site: luyan.io |

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
- Digital Marketing, Influencer Marketing, Digital Platform Economy
- Consumer Sustainability, Crowdfunding Platforms, Healthcare Industry

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 (*Ready for Submission*)
- **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

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

- Purdue University Teaching Academy Graduate Teaching Award   2022

- Distinguished Graduate Student Instructor   2021

- 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

- **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"

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)

  Global warming has become overwhelming and dangerous. Moreover, shopping choices in daily life can intensify or lessen a household's impact on the environment. Because the food system was responsible for 34% of global carbon emissions in 2015, what individuals eat and where they 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 have played a significant role in household 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 from 2007-2017 and measure the effect of shopping at club stores on household carbon life. To address concerns about self-selection into the club store shopping treatment, we implement a recently advanced machine learning(ML) method of causal inference—generalized synthetic control (GSC)—to identify the causal treatment effect. This method unifies the synthetic control and interactive fixed effects model that incorporates unit-specific intercepts interacting with time-varying coefficients. We find consistently that households generate quarterly 10-14% more per capita carbon emissions since purchasing their groceries at club stores. Moreover, we reveal that the unique features of a club store's setting—such as lower prices and larger package sizes—can explain the increases in household food carbon emissions but are not the main drivers for this treatment effect. We also observe that the heterogeneous club store carbon effect is more significant for households with smaller sizes and 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.

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

  Crowdfunding platforms—a fast-growing method for entrepreneurs to finance their ventures—are struggling with improving crowdfunding campaigns' market performance, as platforms expand to include more diverse participants. In this paper, we examine how a platform policy changing the platform size and participation composition (i.e., donors vs. buyers) impacts platform participant behaviors and market outcomes. We use Indiegogo's launch of Generosity.com for charity campaigns. Our results show a higher probability of reaching funding goals for the Indiegogo platform's campaigns after the platform split-up. Such changes are driven by fewer campaigns being launched on Indiegogo after the platform change, as well as more costly visual information (e.g., images videos) provided by the campaign creators. After the platform modification, buyers contribute more to campaigns owing to sensitivity to such campaign information. Also, we collect data on Kickstarter campaigns to test the robustness of our results and use the Difference-in-Difference analysis to confirm our findings. These results are consistent with the notion that entrepreneurs' information disclosure strategy is driven by potential backers' motivation to support the campaign. The study offers several managerial implications for platforms, as well as for their 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 Marketing
  Krannert School of Management, Purdue University
  Email: liu6@purdue.edu
  Phone: (765)-496-6221

- **Federico Rossi**

  Assistant Professor of Marketing
  Krannert School of Management, Purdue University
  Email: rossif@purdue.edu
  Phone: (765)-494-4423