

Dr. Unnati Narang Assistant Professor, Business Administration 4027, Business Instructional Facility (BIF) Champaign, IL 61820

June 16, 2024

Dear Recruiting Committee,

I am writing to strongly recommend Ruichun Liu (https://ruichunliu.github.io/) for your tenure-track position in marketing. As the co-chair of Ruichun's dissertation committee (with Aric Rindfleish) and co-author on multiple research projects, I have observed Ruichun's diligence and scholarship first-hand. Within four years, Ruichun has advanced very well in the PhD program, both in his coursework and in research. He already has two invited revisions at the *Journal of Marketing (JM)* and the *Journal of Public Policy & Marketing (JPPM)*. He has successfully defended his dissertation proposal in April 2024. Ruichun is on-track to graduating within five years and starting his academic career in Fall 2025.

Let me first comment on why Ruichun is a great fit for your faculty and department. Ruichun is diligent, hard-working, focused, and receptive to feedback. In the four years of the PhD program, he has taken diligent and concrete steps to both develop a conceptual understanding of important marketing strategy issues and to learn advanced econometric and machine learning methods to help answer important marketing questions. Because of these reasons and his potential as a future marketing scholar, I believe he is the great candidate for a tenure-track position.

Next, let me comment on Ruichun's research program and current research pipeline. Ruichun has a strong interest in new technologies and innovation, particularly how new forms of consumer mobility, such as escooters and other electric vehicles impact consumption decisions as well as an emerging stream of work on artificial intelligence. Ruichun has initiated and developed two promising research projects in these domains. His first paper with me entitled "The Dual and Asymmetric Impact of E-Scooters on Shared Mobility, Retailing, and Consumer Safety" is a major revision at a top marketing journal, i.e., the Journal of Marketing. Ruichun has received several honors for this work, including the 2022 American Marketing Association (AMA) Summer conference's best paper award in the Innovation and New Product Development Track. Ruichun led the framing and data collection for this project on his own, taking initiative to continuously improve it based on feedback from me and other marketing faculty in our group and at conferences. This paper examines the important phenomenon of the entry of e-scooters. While research in marketing has examined how e-scooters affect restaurant spending, their effects on firms, consumers, and society beyond the restaurant industry are unclear. Using the quasi-experimental entry of e-scooters in parts of Chicago in 2019, Ruichun examines how e-scooters impact other shared mobility (i.e., rideshare and bikeshare trips), retail visits (i.e., visits to restaurants and retail stores), and consumer safety (i.e., crimes and crashes). The results from a difference-in-differences analysis reveal the dual impact of e-scooters; while the entry of e-scooters improves economic activity, it adversely impacts consumer safety and other forms of micromobility. First, the entry of e-scooters increases the number of short rideshare trips by 3.01% but decreases the number of bikeshare trips by 24.98% in the 18 weeks after the entry of e-scooters. Second, the entry of e-scooters increases consumer visits to restaurants by 1.77% and retail stores by 8.37%. Third, the entry of e-scooters increases the number of crimes (e.g., break-ins) by 12.16% and crashes (e.g., bike crash) by 62.74%. The underlying mechanisms are consistent with increased hedonic and tourist activities. Importantly, the effects are heterogeneous by the age and racial composition of a neighborhood; the benefits of e-scooters are attenuated, and their downsides are aggravated in neighborhoods with relatively higher older population and people of color, revealing important asymmetries in the impact of e-scooters. These findings have important managerial implications for practitioners and policymakers. Ruichun has already presented this paper at important

marketing conferences, including the 2021 ISMS Marketing Science Conference, the 2021 Artificial Intelligence and Machine Learning (AIML) conference, 2024 Theory+Practice in Marketing (TPM) Conference, and other prestigious events. In addition, he has also won the Junior Faculty Grant (JFC) in 2021 with me for this project.

In addition to his first paper, Ruichun has also developed a second research project co-authored with me, my colleague Aric Rindfleisch, and Dan McCarthy, Associate Professor at the University of Maryland, entitled, "How Electric Vehicle Charging Networks Impact Consumers' Auto Purchases" that examines how the expansion of charging stations for electronic vehicles between 2015 and 2020 impacted the sales of both EVs and non-EVs. In recent years, the electric vehicle market is growing rapidly with 80% rise in global sales. While auto makers like Tesla and Ford have started to produce more EVs, consumers face issues related to the lack of fast charging points, driving range anxiety (i.e., the restrictions on range on a single charge), and higher initial costs. Given the recent emergence of EVs, an expansion of infrastructure supporting EVs (e.g., network of charging stations) can invigorate consumer demand for EVs. However, the effects of the expansion of EV infrastructure by one brand of auto makers on car sales are unclear. This paper focuses on how the expansion of charging stations between 2015 and 2020 impacts the sales of both EVs and non-EVs. Ruichun is building a unique dataset comprising the entry of Tesla charging stations, dealer networks, and individual-level car sales and registrations from the Texas department of motor vehicles (DMV). He has also used our JFC funds to obtain granular street level congestion data from Streetlight Inc. He has shown a lot of initiative in these efforts.

In addition to these two projects on consumer mobility and consumption decisions, Ruichun also has an exciting emerging body of research on recent advances in Generative Artificial Intelligence (AI). To this end, he has contributed to a paper with me and my colleague Vishal Sachdev titled: "How Generative Artificial Intelligence Impacts Online Content Creation and Engagement" which (faculty in Information Systems) on the use of AI in education and received a revision opportunity at JPPM. He is also working with my colleague Ying Bao on an empirical paper examining healthy consumption decisions.

Ruichun has also demonstrated excellence in his coursework and academics, taking on both marketing seminars and rigorous methodological courses, including machine learning courses. In addition to his research and coursework, in Fall 2023, Ruichun also taught a course on global/international marketing. It is no surprise to me that our department nominated him as a doctoral fellow for important events, e.g., the 2023 Haring Symposium and the Marketing Strategy Consortium, and the 2024 Sheth Consortium. He was recently awarded the prestigious Robert Ferber Dissertation Award and was chosen from business PhD students across marketing, strategy, information systems, organizational behavior, and others for it.

Ruichun is an excellent citizen of our department, shows up regularly to seminars and events, and volunteers to help our seminar speakers at any chance he can get! With two strong essays, several others in the pipeline, and a successful proposal defense underway, Ruichun is well on his way to becoming a successful junior faculty on the tenure-track. In sum, I consider Ruichun to be very deserving candidate and if I were hiring, I would most certainly invite him for an initial interview. I encourage you to speak with him and learn about his research program as well. If you need any additional information, please contact me at (979)-676-5836 or at unnati@illinois.edu.

Sincerely,

Unnáti Narang