

# Research Statement

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As a quantitative marketing strategy researcher with an interest in new technologies, my research focuses on how new technologies and innovations shape marketing decisions. My two main areas of research are *Consumer Mobility* and *Artificial Intelligence*. My research provides data-driven insights that are not only academically robust but also strategically relevant for both industry practitioners and policymakers. I apply quantitative methods, including causal modeling, applied econometrics, machine learning, and deep learning in my research.

## Research Agenda

My current research focuses on new technologies and innovation, particularly how new forms of consumer mobility, such as e-scooters and electric vehicles impact consumption decisions as well as an emerging stream of work on artificial intelligence. I have initiated and developed several research projects in these domains.

My first paper (co-authored with Dr. Unnati Narang) entitled “*The Dual and Asymmetric Impact of E-Scooters on Shared Mobility, Retailing, and Consumer Safety*” is under **revision for resubmission to the *Journal of Marketing***. This paper also received the 2022 American Marketing Association (AMA) Summer conference’s **best paper award** in the Innovation and New Product Development Track. Using the quasi-experimental entry of e-scooters in parts of Chicago in 2019, this paper 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. 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.

My second research project (co-authored with Dr. Unnati Narang, Dr. Daniel McCarthy, and Dr. Aric Rindfleisch), entitled “*How Electric Vehicle Charging Networks Impact Consumers’ Auto Purchases*,” examines how the expansion of charging stations for electric vehicles in Texas between 2015 and 2020 impacted the sales of both EVs and non-EVs. In recent years, the electric vehicle market is growing rapidly with an 80% rise in global sales. While automakers 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 the range on a single charge), and higher initial costs. Given the recent emergence of EVs, an expansion of infrastructure supporting EVs (e.g., the network of charging stations) can invigorate consumer demand for EVs. However, the effects of the expansion of EV in-

frastructure by one brand of automakers on car sales are unclear. Using 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), this paper shows that the entry of charging stations significantly increases the purchases of EVs but does not affect the purchases of non-EVs.

In another emerging stream of research, I also investigate how the rise of artificial intelligence (AI) will impact marketing and society. I have recently co-authored a paper with Dr. Unnati Narang and Dr. Vishal Sachdev, which is entitled “*Generative Artificial Intelligence in Marketing Education: A Conceptual Framework and Research Agenda*” and under **revision for resubmission to the *Journal of Public Policy & Marketing***. Drawn from my own teaching experiences and recent developments in AI, the central premise of this paper is that Generative AI (GenAI) technologies creates both opportunities and challenges for marketing educators. While GenAI tools can facilitate learner engagement and job readiness in marketing programs, their unregulated use can raise significant concerns about academic integrity and ethics. To address these issues, we propose a framework for integrating GenAI into marketing education from the perspective of marketing educators. We posit that the use of GenAI by marketing educators is driven by individual, functional, technological, institutional, and societal factors. Based on our framework, we highlight practical implications for marketing educators and policymakers. Finally, we delineate areas for future research at the intersection of marketing, AI, and education policy.

In my projects on new technologies, I make a concerted effort to capture both economic and societal outcomes. As such, I have increasingly become interested in consumer wellbeing. In a separate project, I started collaborating with Dr. Ying Bao on a research project entitled “*Nutrition Label and Price Elasticity: The Impact of Health Claims on Price Sensitivity in the Yogurt Industry*.” Consumer awareness and preferences for healthy and sustainable food products have dramatically shifted, leading manufacturers to increasingly highlight nutritional attributes through various labeling claims such as non-GMO, fat-free, sugar-free, organic, gluten-free, and locally sourced. These claims are intended not only to inform consumers but also to influence their purchasing decisions. This study leverages a rich dataset from Nielsen to investigate how these nutrition labels affect consumer price elasticity within the yogurt industry. This research contributes to the literature on nutritional information and price elasticity, offering implications that could assist marketers and policymakers in effectively shaping consumer choices towards healthier and more sustainable consumption patterns.

### **Future research plan**

In the long run, I have a broad interest in quantitative marketing strategy with data-driven decisions and conceptual contributions. In particular, my research will concentrate on examining the impact of new technologies in marketing and enhancing quantitative methodologies. I aim to explore the broader impacts of cutting-edge new technologies on consumers, firms, and society. Concurrently, I plan to develop quantitative models that integrate causal inference with machine learning and deep learning methods, to provide deeper insights into data-driven marketing strategies.