Vivek Nandur

239.989.9816 | vivek.nandur@chicagobooth.edu

Education

Ph.D. Quantitative Marketing, Rotman School of Management, University of Toronto, November 2023
M.S. Information Systems, Muma College of Business, University of South Florida, May 2016
B.A. Economics, Minor in Mathematics, University of Florida, May 2012

Experience

Postdoctoral Researcher, The University of Chicago, Booth School of Business, July 2024 to Present

-Led research on digital mental health market dynamics, developing a structural econometric model to analyze the impact of telehealth on the supply and demand for mental health services

-Explored policy interventions for expanding mental health access: Analyzed the effects of laws that increase the labor force participation for mental health, assessing their impact on mental health service accessibility and the potential to reduce market power held by psychiatrists.

Co-Founder, CEO and Chief Scientist, Lumiya December 2023 to Present

-Created and guided Lumiya's strategic direction, ensuring empowerment of social organizations through advanced data science insights.

-Drove innovation in the application of machine learning, data science, and econometrics to measure and analyze the efficacy of social programs.

-Served as the primary spokesperson for Lumiya, advocating for advanced data collection and analysis in order to evaluate social programs.

Senior Data Scientist, Edge, June 2023 - October 2023

- Lead efforts to enhance the accuracy and efficiency of Edge's proprietary risk assessment algorithm. Utilized advanced machine learning and other data science techniques to improve model performance using cash flow data.

-Conducted in-depth analysis of large, complex data sets to identify patterns, anomalies, and trends. Translated insights into actionable strategies that drive decision-making and influence customer adoption.

Quantitative Researcher, Rotman School of Management, University of Toronto, Department of Marketing, August 2016 - June 2023

- Led investigation into media production using NLP and quasi-experimental methods resulting in scientific publication.
- Developed a novel econometric test of theories of obesity using observational data securing a $100,000 grant.
- Conducted monetary valuation of Covid-19 vaccine leading to policy action by governments.

Consultant, Couryah Courier Services Inc., December 2021 - November 2022

- Data scientist for an on-demand grocery delivery platform, analyzing app traffic data to identify new consumer segments.

-Analyzed app traffic data during numerous government lockdowns in order to identify new consumer segments and determine which products rose in demand during these periods.

-Used analysis to recommend “lockdown products” to business as cases rose for the 5th coronavirus wave in early 2022, before the spike in demand for the products occurred.

Consultant and Expert Witness, Anderson Julian and Hull LLP, April 2021 - August 2021

- Expert witness in U.S. district court lawsuit, analyzed web traffic and search data, resulting in dismissal of case.

Quantitative Researcher, Muma School of Business, University of South Florida, Department of Information Systems, August 2014 – May 2016

- Investigated EEG wave propagation in behaviors leading to scientific paper

Economics and Statistics Teacher, Dunbar High School, August 2012 – May 2014

- Was first teacher to pass 9th grade students in AP Microeconomics in Lee County

Grants and Awards

USF Graduate Fellowship for independent research proposal

UF Full Scholarship, UF Honors

Publications

Iyer, G., Nandur, V., Soberman, D.. "Vaccine Hesitancy and Monetary Incentives" Humanities and Social Sciences Communications, 2022, https://doi.org/10.1057/s41599-022-01074-y

APPENDIX – SELECTED RESEARCH ABSTRACTS FROM DOCTORAL WORK

The Complexity of Monetary Incentives: Evidence from the Vaccine Uptake for Covid-19 (Doctoral Thesis)

Problems of the commons are ubiquitous both historically and presently, as they have been found in hazardous waste, overfishing, degrading air and water quality, etc. (Samuelson, 1954; Stavins, 2011) Small communities have found methods of overcoming these dilemmas (Ostrom, 2010); yet for large states/nations, they persist. Public health presents another set of these problems, as smoking or obesity causes harm to the healthcare system beyond the individual (Wyatt et al., 2006). A recent example of the need for collective action is the race to get vaccinated for Covid-19, because vaccination benefits both society and the individual (Yunus et al., 2020). Yet vaccine hesitancy is the predominant reason that prevents the US and many other countries from achieving herd immunity (Piraveenan et al., 2021; Siegler et al., 2020). Many policies have been proposed to increase vaccination uptake, such as Ohio's Vax a Million lottery, which has shown mixed results (Walkey et al., 2021; Sehgal, 2021). But this lottery policy had a low expected value for participants - less than $1. This paper studies a policy with 2 orders of magnitude greater than these lotteries: a $100 incentive announced by the Governor of West Virginia on April 26th, 2021 for 16-35 year-olds.

I use granular data at the age-band county-level to construct a synthetic control comprised of counties from South Carolina and Georgia, to assess the impact of the policy. There is a positive effect on those who had already received one dose, but a negative effect on those who had received no doses at all. That is, the policy reduces vaccine uptake for this group by approximately 30 doses per 100,000 per age-band county per day. This amounts to a decrease in 14,280 doses in the two weeks after the policy in West Virginia. I show that this is driven by the ideological slant of the county, where the more Republican the county is, the more likely it is to show this negative effect. I show the robustness of this result by analyzing a separate dataset, the Household Pulse Survey (HPS) conducted by the Center for Disease Control (CDC). The HPS has data collection phases immediately before and after the policy was announced. A shift occurs in West Virginians' who are unvaccinated, as they became sternly defiant against the vaccine after the policy. This shift does not occur in any neighboring states. These results show

that policymakers must be careful before they implement large scale monetary incentive policies, especially in a heavily polarized society such as the United States.

Vaccine Hesitancy and Monetary Incentives - Humanities and Social Sciences Communications, (Previously Palgrave Communications) with Ganesh Iyer and David Soberman, 2022 - https://www.nature.com/articles/s41599-022-01074-y

Vaccine Hesitancy is a significant barrier to reaching herd immunity and exiting the Covid-19 pandemic. This study examines the potential effectiveness of monetary incentives in conjunction with informational treatments about vaccine efficacy, lack of side effects, and zero costs. We elicit monetary valuations (both positive and negative) for the coronavirus vaccine by conducting an online randomized experiment on a representative sample of 2461 individuals across the US. The study elicits vaccination uptake, then participants' valuations (willingness to pay (WTP) or the willingness to accept (WTA)) for the vaccine based upon the stated choice of participants to accept or reject the vaccine. We find that a $1000 incentive increases vaccination uptake up to 86.9% . We identify two distinct segments among the vaccine Hesitants – Reluctants and Unwillings – Reluctants can be persuaded to vaccinate for some level of monetary incentive, whereas Unwillings indicate that no amount of monetary incentive will persuade them to vaccinate. The Unwillings are more likely to a) think that the disease is insufficiently severe, b) have less faith in the public health system, c) be older, compared to the Reluctants.

Media Production and the Attention Economy (Doctoral Thesis)

Media content can generally be categorized as hard or soft content. Hard content is typically used to refer to topics that are timely, important, and consequential, such as politics, international affairs and business news (Harcup & O'Neil, 2016). Soft content on the other hand concerns entertainment, celebrity gossip, and sports and lifestyle news. This distinction is useful for two reasons: because there are different costs of producing each content (the cost of producing hard content is greater than soft (Boczkowski 2010, Angelucci and Cage 2019)) and the type of consumers who consume each content type is different: those who consume hard content usually have higher incomes (because higher educated readers consume more hard content) and thus potentially have different tastes for products (Angelucci and Cage 2019)). Thus, media firms have to consider these various benefits under their financial constraints when deciding what type of content to produce.

Social Media itself has risen to prominence over the last 10 years, and has become a larger news source than newspapers, especially for the younger demographic (Pew Survey 2018). Given that this younger demographic uses predominantly social media to access media, - how should a media firm create content in the age of social media? What is the relative share of hard/soft content they should produce? To answer this question, I use an internal dataset from an Austrian media firm, Meinbezirk (top 3 media site in Austria) where I observe every article produced from January 2017 to July 2018. An unexpected algorithm change at Facebook in January 2018 resulted in a mechanical lowering of media content showed to consumers. I show that this negatively affected soft content articles by 13% over hard content articles. The category that has the biggest drop is the "Leisure" category, with a drop in over 17%. The media firm responds by producing much of less of this category 6 weeks after the policy change. These results speak to the power of Facebook over downstream media firms and to the debate over the regulation of "Big Tech" and its algorithms.