NBER's Economics of Digitization Project Application
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Graduate Study Details -

I am a third year PhD student at Stanford's Graduate School of Business, concentrating in Quantitative Marketing. As a part of my PhD course-work I have taken courses in econometrics, micro-economics, industrial organization and machine learning.

General Research Interests -

My research focuses on approaches using technology-linked marketing interventions to improve the performance outcomes of firms in low-income and/or developing countries. In line with this broad research interest, I have completed two large-scale randomized controlled field experiments (RCFEs) and am currently working on two new RCFEs. Through my first completed experiment in Rwanda, preliminary results show that *marketing analytics* exposure can lead to firm growth and an improvement in the problem-solving/analytical ability of entrepreneurs. My second completed experiment shows that marketing-linked *business development services* can help in driving growth through market expansion for Nigerian firms. Going forward, as a part of my research, I am now focusing on enhancing *customer-closeness* in small firms using low-cost technology, which in-turn should help in improving sales and profits for the firms. I believe NBER's Economics of Digitization project would be a great platform to hear from leading researchers in the area of Digitization and will provide me an opportunity to interact and learn from them. I believe the learnings will also help me advance my research further.

Details of Research Projects –

My first RCFE project (joint-work with Prof. Stephen Anderson, Prof. Pradeep Chintagunta, and Prof. Naufel Vilcassim) was run in the greater-Kigali region of Rwanda with 550 small-firms (concluded in March 2020). It evaluates the impact of a self-designed marketing-analytics tool on small firms and their owners. To the best of our knowledge, there isn't an existing study that empirically evaluates the causal impact of marketing analytics on small-firm performance and, thus, I hope to make a contribution in that area. I randomize the firms into three experimental groups: Treatment (250 firms get smartphones, internet and the analytics app); Control (250 firms form a counterfactual group not provided anything); and Placebo (50 firms get a smartphone with internet only). The Placebo group is set-up to rule-out alternative explanations of changes such as access to the internet. By manipulating entrepreneurs' access to marketing- analytics, we determine whether our main outcomes of interest (e.g. firm sales, profits) are affected differently, as well as the process mechanisms through which these differential effects occur (i.e. theory of change).

My second RCFE in Nigeria (joint work with David McKenzie and Prof. Stephen Anderson) was run in partnership with the Growth and Employment (GEM) project managed by the Nigerian government and the World Bank (concluded in January 2020). In this project, I identify and implement an intervention that could nudge firms to expand into newer markets and also measure whether the intervention influences a specific measure of firm growth (i.e., sales and profits). The sample of 1011 firms are randomized into three groups: Treatment-1 (253 firms offered Business Development Services); Treatment-2 (252 firms offered Blended Learning Services with online and offline learning); and Control (506 firms formed a counter-factual group with no services offered). This is a novel study on market expansion. While some existing studies focus on the aggregate impact of expansion on markets and industry, surprisingly little is known about the internal processes or external stimuli to the firms that may trigger new market expansion. Both of these RCFEs have been completed and I have collected endline data as well. I am now in the process of completing the analysis and writing the papers for submission to academic journals.