

SIDDHARTHA SHARMA

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EDUCATION

- **H. John Heinz III College, Carnegie Mellon University, Pittsburgh**
 - PhD in Information Systems and Management, 2015-
- **Indian Statistical Institute, Kolkata**
 - Master of Science in Quantitative Economics, 2011-13
- **St. Xavier's College, Kolkata**
 - Bachelor of Science in Economics (Honors), 2008-11

RELEVANT GRADUATE COURSEWORK

- **At Indian Statistical Institute**
 - Microeconomics I and II
 - Industrial Organization
 - Incentives and Organizations
 - Cooperative Games
 - Auction Theory
- **At Carnegie Mellon University**
 - Econometrics I and II (MLE and GMM)
 - Game Theory and Applications
 - Machine Learning
 - Bayesian Statistics
 - Empirical Models in Marketing (Structural Models)
 - Social Network Analysis (seminar)
 - Unstructured Data and Big Data

RESEARCH INTERESTS

- Pricing, integration and advertising strategies of multisided technology platforms
- Analytical and empirical Industrial Organization

My current research focuses on (i) the advertising strategy of online marketplaces like Amazon, eBay etc. where I study whether sponsored listings help or hurt overall revenue and how does it depend on different on product categories, and (ii) the distribution channel strategy of online video content, measuring the cannibalization effect of a popular platform like *YouTube* on other less popular but more lucrative platforms.

RESEARCH EXPERIENCE

- **Research Associate**, Indian School of Business, Hyderabad, 2013-15.

- **Working Paper**
 - ***Vertical Integration Strategy by Advertising-Financed Platforms: Effect on quality and price competition in the complementary product market with Amit Mehra, 2016.***

Firms like Google have recently ventured into providing complementary hardware services that facilitate consumer access to their platforms from which they earn hardware-quality-dependent advertising revenue (e.g. Google Fiber allows consumers to access YouTube and Nexus phone allows consumers to access the Android platform). We examine this vertical integration strategy of advertising-financed platforms using an analytical model of quality and price competition in the complementary product market. In general, increase in competition leads to reduction in product qualities, but we find that vertical integration by the platform can increase the quality of all competing firms providing the hardware services. This is a result of positive strategic effects imposed by platform's entry into the market. We also find that this strategy can be profitable even if the platform firm makes losses in the hardware business or earns lower advertising profits than without vertical integration. More interestingly, this profitability does not always increase with higher advertising profits per user. Finally, we show that even though monopoly power of the platform may increase with vertical integration, social welfare can also increase.

- **Work in Progress**
 - *Do sponsored listings help or hurt online marketplaces? Evidence from a large-scale randomized field experiment* with Vibhanshu Abhishek and Param Vir Singh, 2016
 - *YouTube or not to YouTube? Solving the digital channel conundrum through a randomized field experiment* with Rahul Telang, Pedro Ferreira and Beibei Li, 2016
 - *Multihoming in two-sided markets* with Rahul Telang, 2016

- **Conference Presentation**
 - **2014 Workshop on Information Technologies and Systems, Auckland, NZ**
 - *Vertical Integration Strategy of an Open Platform*