Title: Efficiency and Driver Behavior in Ride-Hailing Platforms with Adjacent Services: An Empirical Study of the Impact of Food Delivery Introduction

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Area: POM

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Abstract:

Problem Definition: To sustain growth as competition intensifies, many ride-hailing platforms introduce adjacent services (e.g., food delivery) seamlessly, expanding the functionality of their mobile app for customers and drivers. However, the driver's behavior in choosing between incumbent ride-hailing services and new adjacent services is poorly understood in the literature, which motivated us to examine how introducing an adjacent service (food delivery) influences driver behavior. Methodology/Results: By analyzing the data obtained from a ride-hailing platform in Vietnam with a new food delivery service introduced in two different cities at different times, we examined the driver's decision between ride-hailing and food delivery services using the difference-in-difference method with a series of robustness checks. Our analyses reveal that, after introducing additional food delivery service option, drivers who provide both services (hybrid drivers) earn 85.8% more in revenue and work 68.9% more hours. We find that such effects are heterogeneous across the parttime and full-time hybrid drivers. Additionally, these hybrid drivers tend to select shorter ride-hailing rides (4.6% more trips per hour and 6.9% lower revenue per trip), generating operations area clusters. However, those drivers who remain to provide only ride-hailing services (dedicated drivers) seem to choose longer ride-hailing rides (6.9% fewer trips per hour and 8.5% higher revenue per trip). Managerial implications: The introduction of the adjacent food delivery service can enable the platform to reduce labor supply heterogeneity between part-time and full-time drivers. However, our study predicts shorter ride-hailing requests, a "cherry-picking" behavior, is present among hybrid drivers. At the same time, we find evidence about longer ride-hailing request selection patterns among dedicated drivers. Hence, our study highlights new labor supply risks as the adjacent service introduction can create potential segmentation in the driver pool.

Speaker Profile:



Sukrit Pal is an Assistant Professor at Iowa State University. He completed his Ph.D in Operations and Supply Management from the Michigan State University.

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