

New study finds taxi drivers improve earnings through trip selection

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A new research study published in the October edition of the INFORMS journal *Marketing Science* (Editor's note: The source of this research is INFORMS) has revealed how taxi drivers use mobile hailing technology

to select longer, more profitable trips to optimize their earnings, rather than seeking to increase the number of trips or working hours to achieve higher earnings.

The study, published in the October edition of the INFORMS journal *Marketing Science*, is titled "Mobile Hailing Technology and Taxi Driving Behaviors." It is authored by Yanwen Wang and Chunhua Wu of the University of British Columbia, and Ting Zhu of Purdue University. The researchers examined the geolocation data of 2,106 single-shift [drivers](#) in Beijing as the basis of their research.

"We found that a typical [taxi](#) driver greatly improves hourly earnings through trip selection in favor of longer trips, which provide larger individual fares, rather than aiming for cruising time reduction, and possibly an increase number of trips during the same working shift," said Wu.

"At the same time, we found that the relative importance of cruising time reduction and trip selection depends on the driver's skills and market conditions."

The researchers found the mobile hailing apps on [smart phones](#) enable [taxi drivers](#) to take two distinct approaches to improve their hourly earnings: they can reduce the cruising time between trips with the help of the hailing technology, which provides current data on riders and traffic routes, and makes it more efficient for taxi drivers to locate waiting passengers; or, they can increase their earnings by engaging in trip selection in favor of longer and larger-fare trips.

"Taxi drivers have been accused of rejecting smaller-fare trips in the past," said Wang. "Although many cities have made efforts to reduce taxi trip rejection rates, the prevalence and design of new mobile hailing technology increases the possibility of countering any progress that has

been made in this area. In short, the issue of cherry-picking potentially can resurface."

The researchers pointed out that some mobile hailing applications minimize this problem through the design of the app itself.

"The Uber driver app does not reveal a passenger's destination until a driver picks up a passenger," said Zhu. "But other mobile hailing apps do inform drivers with information on both pickup and drop-off locations. Our research has shed light on how that information is used by drivers."

More information: Yanwen Wang et al, Mobile Hailing Technology and Taxi Driving Behaviors, *Marketing Science* (2019). [DOI: 10.1287/mksc.2019.1187](https://doi.org/10.1287/mksc.2019.1187)

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