

# New app can direct cabbies to areas of high demand



Prof Cheng Shih-Fen (centre) of the Fujitsu-SMU Urban Computing and Engineering Corporate Lab with cabbies Zainon Mohamed and Simon Tay, who have been using the app. ST PHOTO: ALPHONSUS CHERN

It taps historical data, real-time info from LTA to predict street-hail volume

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A taxi guidance system that is being co-developed by a laboratory in the Singapore Management University (SMU) could well be the solution to help cabbies hold their own as they battle it out with private-hire car drivers.

The average daily ridership for taxis has dropped by 18 per cent, from 954,000 in 2016 to 785,000 last year. The taxi population has also declined by 14 per cent, from 27,534 in 2016 to 23,140 last year.

The Fujitsu-SMU Urban Computing and Engineering Corporate Lab – a collaboration between SMU, Japanese technology firm Fujitsu and the Agency for Science, Technology and Research (A\*Star) – is looking into an app which aims to direct cabbies to areas of high street-hail demand.

The taxi driver guidance system uses historical data as well as real-time data from the Land Transport Authority (LTA) on taxi locations and status to predict demand. For example, if a number of taxis change their status from available to hired along a certain stretch of road, this would indicate high demand in that area.

"This gives us a pretty good idea of the demand and supply of taxis in a certain area," said Associate Professor Cheng Shih-Fen, deputy director of research at the laboratory, which studies congestion and its solutions as one of its key areas of research.

The app has produced "positive results" for the more than 400 cabbies who have installed it since November when it was introduced at a National Taxi Association (NTA) event.

The NTA had earlier this month called for taxis to be equipped with technology to allow cabbies to "drive smarter and safer".

The app has made a significant difference during off-peak hours when demand is more sporadic and harder to predict, said Prof Cheng, who added that he hopes to have more than 1,000 cabbies using it in the future.

For example, cabbies using the app between midnight and 6am on weekdays in the Central Business District had an empty cruising time of about 12 minutes.

In comparison, drivers who did not use the app experienced more than 17 minutes of empty cruising.

"Although I'm an experienced driver, if I don't know where to go, the system can show me," said 49-year-old cabby Zainon Mohamed, who has been driving a taxi for 10 years.

Mr Simon Tay, who has been at it for about a year, said the app was especially useful for less experienced taxi drivers like himself. "I'm new, so I don't know what time and where I can find passengers. The app helps me," said the 56-year-old.

Most of the income – as much as 70 per cent – of some taxi drivers comes from street hails, said Prof Cheng. Private-hire cars are barred from picking up street-hail passengers.

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18%

Percentage drop in average daily ridership for taxis, from 954,000 in 2016 to 785,000 last year.