

Abstract

This thesis investigates car-sharing use by subscribers of that time of Autonapůl, the longest operated App platform in the Czech Republic. First, we analyse the mileage of the App subscribers and survey respondents, finding different behaviour patters among the users who did not participate in the survey. Survey participants use the App more actively (89% with non-zero km) and drive on average more (154 km a month) than the App users who did not agree to participate in the survey (65% and 85 km, respectively). Then, we analyse demand on kilometres driven by survey respondents, treating the potential selectivity due to reported zero mileage. We compare OLS and two selectivity models - two-stage Heckman and two-part models. The study also examines the impact of usage frequency on kilometres driven. Those who drive more frequently also drive more - users who used the App at least once a week drive almost ten times more kilometres than those who used the App less than once a month (395 km versus 53 km a month). We find that age, use for leisure purposes, satisfaction, and having children are associated positively, and car ownership is associated negatively with mileage driven by car-sharing. This study enhances the topic of car-sharing by examining determinants of car-sharing use and its underlying factors using statistical methods.

Keywords Car-sharing, User behaviour, Sample selection problem, Heckman two-step estimator

Title Determinants of car-sharing use: Autonapůl Case study