

A Microeconometric Evaluation of a Consumer Advice Service Applying Propensity Score Matching

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Abstract

This article reports on the design and results of the impact evaluation of an advice service aimed at increasing consumer demand for so-called pedelecs. In a quasi-experimental field study five causal hypotheses on behavioural intentions were tested. The problem of selection effects due to lacking randomization of samples was met with propensity score matching (PSM). The samples of participants and non-participants in the intervention were harmonized through the estimation of a propensity score on the basis of observed covariates. Subsequently, treatment effects were estimated applying kernel matching. In order to test for the robustness of effects, sensitivity analysis on the basis of Rosenbaum bounds was used for modelling potential scenarios of selection bias. Therefore, from the empirical study not only result insights into the effectiveness of an advice service on electric bikes, it also demonstrates how causal impact evaluation can be performed under challenging field conditions.

Keywords: Pedelecs, Consumer Advice, Propensity Score Matching, Impact Evaluation



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