Methodology for exploratory analysis of latent factors influencing drivers' behavior - DTU Orbit (25/12/2018)

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In the route choice context, modeling the process that generates the set of available alternatives in the mind of the individual is a complex and not fully explored issue. Route choice behavior is influenced by variables that are both observable, such as travel time and cost, and unobservable, such as attitudes, perceptions, spatial abilities and network knowledge. In this study, attitudinal data were collected with a web-based survey addressed to individuals driving habitually from home to work. The paper proposes a methodology to conduct a proper application of factor analysis to the route choice context and describes the preparation of an appropriate dataset through measures of internal consistency and sampling adequacy. The paper shows that for the dataset obtained from the web-based survey, six latent constructs affecting driver behavior were extracted and scores of each driver on each factor were calculated.

Keyword: Route choice, driver behavior, choice set, factor analysis

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