Travellers’ profiles definition using statistical multivariate analysis of attitudinal variables

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Abstract

The reduction of car use is considered an important priority by policymakers who try to find new strategies for addressing the travel demand towards more sustainable modes. The aim of this research is to characterise people’s behaviour using Exploratory Factor Analysis for defining latent constructs on which derive the travellers profiles. Data coming from an attitudinal travel survey administered to a representative sample of the population of Alessandria (Italy) are used to this effect. Six factors have been defined on which the k-means Cluster Analysis has been applied finding four travellers’ profiles. The resulting clusters are quite informative and policy relevant, highlighting the importance of attitudinal items. The results show that the travel pleasure addicts manifest the highest attitude to change mode while time addicts and timeservers show the highest car dependence and low intention to use alternative modes. Even if the green consciences feel the importance of the environment and are willing to pay to preserve it, they do not seem available to change habits and abandon the car, marrying the concept “who pollutes pays”. The research confirms that we can expect a strong attitude-behaviour correlation if the measures of attitude and behaviour involve exactly the same action, target, context, and time elements. In fact, while the general attitudes reveals wider margins in modal diversion, the specific attitudes towards the mode used in commuting trip are quite coherent with the behaviour, that is the use of car for the majority of respondents.

Keywords: travel behaviour, market segmentation, multivariate statistical analysis, attitudes