E-Consumers' Attribute Non-Attendance Switching Behavior: Effect of Providing Information on Attributes

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Abstract : Discrete Choice Experiments (DCE) are used to investigate how product attributes affect decision-makers' choices. In DCEs, choice situations consisting of several alternatives are presented from which choice-makers select the preferred alternative. Standard multinomial logit models based on random utility theory can be used to estimate the utilities for the attributes. The overarching principle in these models is that respondents understand and use all the attributes when making choices. However, studies suggest that respondents sometimes ignore some attributes (commonly referred to as Attribute Non-Attendance/ANA). The choice modeling literature presents ANA as a static process, i.e., respondents' ANA behavior does not change throughout the experiment. However, respondents may ignore attributes due to changing factors like availability of information on attributes, learning/fatigue in experiments, etc. We develop a dynamic mixture latent Markov model to model changes in ANA when information on attributes is provided. The model is illustrated on e-consumers' webshop choices. The results indicate that the dynamic ANA model describes the behavioral changes better than modeling the impact of information using changes in parameters. Further, we find that providing information on attributes leads to an increase in the attendance probabilities for the investigated attributes.

Keywords : choice models, discrete choice experiments, dynamic models, e-commerce, statistical modeling

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