

## **THE ESTIMATION OF INDIVIDUAL-LEVEL MODELS AS A WAY TO EXPLORE PREFERENCE HETEROGENEITY AND RESPONDENT'S BEHAVIOURAL RULES**

MAREK GIERGICZNY; MIKOLAJ CZAJKOWSKI

*UNIVERSITY OF WARSAW.*

Unobserved preference heterogeneity is usually represented in discrete choice models by treating utility function coefficients as random variables. In this paper we propose a different approach to explicitly account for preference heterogeneity – we investigate the possibility of estimating individual-level choice models. To deal with required data intensity we designed a choice experiment in which each respondent faced 16 choice-sets, and was asked to provide a full ranking of the four alternatives in each choice-set. The exploded logit formula was used to estimate individual-level utility parameters which were used to calculate WTP of each individual. We then compared performance of different ways to account for preference heterogeneity. Using data at the individual level we explored respondents' decision rules. In general, our results indicate that pooled models may conceal many types of irregular behaviour. Our analysis also indicates that many respondents exhibit lexicographic or near-lexicographic preferences.

The choice experiment was performed in the context of the wetland conservation programme in Belarus. The Zvaniec mire is a unique habitat for many endangered bird species, including globally threatened Aquatic Warbler (*Acrocephalus Paludicola* L). Unfortunately the abandonment of traditional wetland farming systems, especially the cessation of mowing, resulted in undesirable succession and in a rapid habitat loss. Global biodiversity is threatened unless a protection management programme is launched. A choice experiment study has been conducted aiming at estimating the willingness to pay for a complex conservation programme.