

# Bayesian Analysis of Multivariate Ordered Probit Model with Individual Heterogeneity\*

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## Abstract

In this article, we describe the Bayesian multivariate ordered probit model introduced by Chen and Dey (2000) (algorithm 1), and propose a new algorithm that includes individual heterogeneity in the cutpoints function (algorithm 2). Further, we examine the two algorithms using real data from World Values Survey wave 5, collected between 2005 and 2009. The empirical results demonstrate that the model with individual heterogeneity outperforms that without heterogeneity.

KEY WORDS: Bayesian analysis, Markov chain Monte Carlo (MCMC), Multivariate ordered probit model, World Values Survey.

JEL CLASSIFICATION: C11, I31.

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