

SHOULD MANAGERS CARE ABOUT INTRA-HOUSEHOLD HETEROGENEITY?

Nanda Kumar

The University of Texas at Dallas

Parneet Pahwa

The University of Texas at Dallas

B.P.S. Murthi

The University of Texas at Dallas

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Abstract

In this study we seek to study the implications of ignoring intra-household heterogeneity in choice models estimated using scanner data. Using a unique data set that identifies choices made by individual customers within a household, we estimate multinomial choice models at the household level with and without incorporating intra-household heterogeneity using the Markov Chain Monte Carlo (MCMC) procedures. We find that the estimates obtained at the customer level are significantly different from those obtained at the household level. We use the estimates obtained at the household and customer level to conduct a policy simulation to target households with a promotion. We find that using customer level estimates to target households with a promotion results in significantly higher profits relative to targeting based on household level estimates which ignores intra-household heterogeneity.

Keywords: *Discrete Choice; Markov Chain Monte Carlo; Intra-Household Heterogeneity*

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