Investigating the impact of customer stochasticity on firm price discrimination strategies using a new Bayesian mixture scale heterogeneity model

Dr. Dipak Dey,
University of Connecticut

Date: 08.01.2016 Venue: P22 @ 2.30 PM

Abstract

In this presentation, we study the impact of customer stochasticity on firm price discrimination strategies. We develop a new model termed the Bayesian Mixture Scale Heterogeneity (BMSH) model that incorporates both parameter heterogeneity and customer stochasticity using a mixture model approach, and demonstrate model identification using extensive simulations. We estimate the model on yogurt scanner data and find that compared to the benchmark mixed logit and multinomial probit models. Our model shows that markets are less price elastic, and that a majority of customers exhibit stochasticity in purchases; our model also obtains better prediction and more profitable targeting strategies.

Speaker Profile

http://merlot.stat.uconn.edu/~dey/