

Stochastic Models of Brand Choice and the Analysis of Brand Switching Data via Latent Class Analysis

Panagiota Anastasiou and John Panaretos
Department of Statistics
Athens University of Economics and Business
76 Patision St., 104 34, Athens, Greece

Abstract

Stochastic choice models differ in a number of ways from the other types of consumer choice behavior models. They also differ as to how they handle customer heterogeneity. Some models try to segment customer into homogeneous subsets and analyze them separately. Brand choice models are usually distinguished according to how they deal with population heterogeneity, purchase event feedback and exogenous market factors. Much of the information used in a number of popular brand choice models can be extracted from a brand-switching matrix. The elements in this matrix are obtained from purchase information on two occasions separated in time.

In this paper we present the most popular methods that have been used until now in the analysis of brand switching matrix, giving emphasis to latent class models. Questions that are dealt with are the following: Which of these methods give us the best information about the consumer's behavior? Assuming misclassification error is present, which technique best recovers the true market structure? Are there situations under which one model may fit the data better than another one?

Keywords: Stochastic models, Consumer Behavior, Brand-switching matrix, Brand Choice Models, Latent Class models