Estimating Consumer Demand for Hedonic Portfolio Products:
A Bayesian Analysis using Scanner-Panel Data of Music CD Stores

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Most products have hedonic and utilitarian attributes. Products that mainly offer hedonic benefit in the form of an affective experience (e.g. movies) are called *hedonic products*, while products providing the utilitarian benefit of pragmatic functionality (e.g. personal computers) are entitled *utilitarian products*. If a person prefers a specific category of hedonic products, he or she repeatedly buys products in that category, although it is rare that he or she repeatedly purchases an individual product . That is, many hedonic products are purchased as one of a person's possessions . Such products are categorized as *hedonic portfolio products*(Moe and Fader, 2001): a typical example is music compact disks (CD).

In this study, we conduct an empirical analysis using sales data from music CD stores in Japan. The distinguishing feature of our data is that the study contains the ID number of customers who purchase a specific music CD title, although no demographic data is collected to ensure privacy. We use this scanner-panel data to estimate each customer's demand for his or her collection of music CDs (e.g. Pop, Rock, Jazz or Classic), following earlier work by Kim, Allenby and Rossi (2002). For estimation, we use an R package, `bayesm`, developed by Rossi, Allenby and McCulloch (2005). Finally, we discuss the retailers' assortment and pricing strategy to improve both profitability and maintain customer satisfaction.

References

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