

Demand Estimation and Marketing in the Presence of Social Interactions

The role that social interactions play in the purchase decisions of consumers is of growing interest to marketers. However, the extension of choice models to incorporate a peer's decision forces the modeler to confront a variety of empirical challenges in separating out correlated behavior between peers from actual causal interactions between peers. Furthermore, even if causal social interactions exist, estimation of the effect of a peer's decision on a consumer is complicated by the fact that the peers often coordinate decisions. This paper defines an empirical equilibrium model with a flexible heterogeneity structure to confront these modeling challenges. To validate the model and illustrate its ability to measure social interactions and their implications for marketing policy, we apply it to a data set of golfers who frequently play together. We find that more than 50 percent of the demand from the consumers is attributable to their desire to play together. In addition, we find that marketing to one consumer actually increases the returns to marketing to a peer, such that the firm will not focus all of its marketing effort on a single group member unless there is a strong asymmetry between the individuals within a group.