

## **Agent-based Models of Diffusion of Consumer Product Innovations**

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An agent-based model of consumer's new product adoption behavior is presented. The effects of two types of influence are both modeled explicitly: (1) Mass and targeted marketing over which the producing firm has direct control; and (2) word-of-mouth and imitative behavior among consumers over which the producing firm has no control. The model uses product characteristics, consumer characteristics, and marketing characteristics to predict market penetration over time. A discussion of empirical methods for validating model parameters as well as new methods for data collection is included.