



JOURNAL OF THE INSTITUTE FOR OPERATIONS RESEARCH AND THE MANAGEMENT SCIENCES

# MARKETING SCIENCE

Volume:

Number:

Year:

Title:

Author:

e-mail:

[MktgSci@notes.cba.ufl.edu](mailto:MktgSci@notes.cba.ufl.edu)

Marketing Science Homepage

<http://bear.cba.ufl.edu/centers/MKS>

# Multiple Messages to Retain Retailers: Signaling New Product Demand

Preyas S. Desai

*Fuqua School of Business, Duke University, Durham, North Carolina 27708-0120, preyas.desai@duke.edu*

## Abstract

With the increase in new product introductions in consumer packaged goods categories, supermarkets are reluctant to accept new products. Therefore, it is very important for manufacturers to convince retailers of the high-demand potential of their products. We study how a high-demand manufacturer can use advertising, slotting allowances, and wholesale prices to signal its high demand to retailers.

Specifically, we examine the relative importance of advertising and slotting allowance in signaling demand. That is, when is it optimal for the manufacturer to use high advertising support, and when is it optimal for it to offer slotting allowance as a signal of its demand? We show that when a high-demand manufacturer is trying to signal its demand to retailers, advertising and slotting allowance are partial substitutes of one another in the sense that the manufacturer can increase one in order to compensate for a reduction in the other. We find that the high-demand manufacturer's signaling strategy depends on three factors: the retailer's stocking costs, the intensity of retail competition, and the advertising response rate in the given product market.

We begin with a model of one manufacturer dealing with one retailer. The manufacturer has private information about the potential demand for its new product. The retailer is uncertain about the likely demand of the new product and is willing to accept the product only if it is convinced that the demand is high. We characterize the high-demand manufacturer's separating equilibrium strategies. We find that the slotting allowance plays an important role in signaling when the retailer's stocking costs are high and the advertising effectiveness is low. On the other hand, the manufacturer does

not offer any slotting allowance, and advertising plays a bigger role when the stocking costs are low or the advertising effectiveness is high.

We then examine the effects of retail competition on the manufacturer strategy. We find that the slotting allowance plays a more important role when the retail level competition is very intense. The manufacturer may have to offer a positive slotting allowance even in the absence of retailers' demand uncertainty when the retail competition is sufficiently intense. This result shows that the slotting allowance may have an important role to play even in the absence of signaling or screening considerations. Thus, our analysis of competitive setting provides an alternative explanation for slotting allowances. It also offers support to the views of many retailers who believe that slotting allowances can help retailers recover high stocking costs in highly competitive retail markets. In the presence of retailers' demand uncertainty, the manufacturer offers a higher slotting allowance in order to signal its high demand.

We also investigate the effect of retailer's uncertainty about the effectiveness of the manufacturer's advertising. We show that if the high-demand manufacturer also has a higher advertising response rate, the manufacturer provides even higher advertising support to alleviate the retailer's advertising-related uncertainty. By increasing the advertising support, the manufacturer credibly tells the retailer; that it would not be optimal for the manufacturer to provide such high advertising support unless it had high enough advertising effectiveness.

*(Channels of Distribution; Game Theory; New Product Introductions; Signaling)*