Trade Promotion Decisions under Demand Uncertainty: A Market Experiment Approach

In this paper, we examine trade promotion decisions in manufacturer-retailer channels where retailers face consumer demand uncertainty. We first present the theoretical analysis for two types of markets where trade promotion discounts are offered either as off-invoices or as scan-backs. We derive testable hypotheses by comparing wholesale and retail prices, retailer order quantities, and profits given the same trade promotion discount. Next, we extend the basic model so that the amount of trade promotion discount influences market expansion and solve for the optimal discount level. To test our theory, we then employ market experiments where we manipulate demand uncertainty and market expansion. Consistent with our theoretical predictions, we find that wholesale and retail prices are higher and retailer order quantities lower when the same amount of trade promotion discount is allocated to scan-backs versus off-invoices. In the market expansion condition, we find that manufacturers offer deeper discounts when trade promotions are allocated to off-invoice versus scan-backs. Overall, our research suggests that market experiments can shed light on trade promotion outcomes for which industry data are sparse.