

ABSTRACT

Private Label Vendor selection in a supply chain: Quality and clientele effects

We model a supply chain consisting of a national brand manufacturer and an independent manufacturer, both of whom are potential suppliers of store brand to a single retailer. The retailer serves two customer segments – a quality sensitive segment (high type) and a price sensitive (low type) segment. The retailer serves these two segments by targeting the national and store brands to the quality and price sensitive segments, respectively. When the national brand manufacturer supplies the store brand he internalizes the effect of store brand quality on the national brand's retail prices. This leads the national brand manufacturer to choose a lower store brand quality than the independent manufacturer. This decrease in store brand quality has the benefit of increased revenues from the high type customers along with an associated cost of decreased revenues from the low type customers. Thus, when the benefit outweighs the cost the retailer chooses the national brand manufacturer to supply the store brand. We show that the retailer will choose the national brand manufacturer to supply the store brand when (a) the size of the high type customer segment is large relative to the low type customer segment, (b) the valuations of the high type customer segment is large relative to the low type customer segment, and (c) the retailer's margin requirement on the store brand is not very high. Overall, these results suggest that retailers who serve a bigger sized quality (price) sensitive clientele would have the national brand (independent) manufacturer supply the store brand.

Key Words: Vendor selection, Private Label, Supply Chain, Quality, Game Theory, Customer Heterogeneity