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Brand positioning and consumer taste information

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ABSTRACT

In this paper, we study how a retailer can benefit from acquiring consumer taste information in the presence of competition between the retailers store brand (SB) and a manufacturers national brand (NB). In our model, there is ex-ante uncertainty about consumer preferences for distinct product features, and the retailer has an advantage in resolving this uncertainty because of his close proximity to consumers. Our focus is on the impact of the retailers information acquisition and disclosure strategy on the positioning of the brands. Our analysis reveals that acquiring taste information allows the retailer to make better SB positioning decisions. Information disclosure, however, enables the manufacturer to make better NB positioning decisions – which in return may benefit or hurt the retailer. For instance, if a particular product feature is quite popular, then it is beneficial for the retailer to incorporate that feature into the SB, and inform the manufacturer so that the NB also includes this feature. Information sharing, in these circumstances, benefits both the retailer and the manufacturer, even though it increases the intensity of competition between the brands. But, there are situations in which the retailer refrains from information sharing so that a potentially poor positioning decision by the NB makes the SB the only provider of the popular feature. The retailer always benefits from acquiring information. However, it is beneficial to the manufacturer only if the retailer does not introduce an SB due to the associated high fixed.

1. Introduction and motivation

Accelerating technological change, coupled with intense competition, pressures companies towards shorter new-product introduction cycles. In their attempt to get products to market faster, firms are finding it difficult to incorporate all consumer insights into the product development process (Badgett, Bowen, Connor, & McKinley, 2002). Consequently, which product features will turn out to be popular remains uncertain during product launch, despite the substantial market research available at the firms' fingertips (Van der Panne, Van Beers, & Kleinknecht, 2003). This can be troublesome, especially given that consumers nowadays expect and demand a product tailor-made for their lifestyles (O'Regan, 2009).

In this context, a retailer's direct interaction with consumers can provide rich insights. A retailer has the opportunity to learn the *specific* desires of consumers faster than a manufacturer (Kanellos, 2005). Through customer-centric management styles, retail giants such as Best Buy, Kroger, Target, Tesco, Walgreen, and Walmart generate significant insights into consumers' taste (Crosby, 2009; Hiemeyer, 2010; Lal, Tarsis, & Knoop, 2006). One way retailers capitalize on the insights generated is by incorporating them into the store brands (SBs) they sell. Many retailers today have their own SBs, with some of them, like Kirkland (Costco) and President's Choice (Loblaws), becoming almost as popular as national brands (NBs).[2] Recently, Amazon introduced a range of SB products that seem perfectly tailored to customer demand, capitalizing on their vast amount of data concerning consumer purchasing habits.[3]

In this paper, our primary objective is to identify how a retailer can benefit from acquiring consumer taste information in the context of competition between NBs and SBs. Acquiring information about uncertain tastes bring forth unique questions in the presence of SBs – in particular, from a product positioning perspective. The first option for the retailer in utilizing this temporarily distinct

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[2] In 2009, 43% of shoppers switched from an NB to a corresponding SB, and 97% of those said they favour SBs to their previous choices (PLMA, 2009).

[3] Spencer Soper, "Got a Hot Seller on Amazon? Prepare for E-Tailer to Make One Too", April 20, 2016, https://www.bloomberg.com/news/articles/2016-04-20/got-a-hot-seller-on-amazon-prepare-for-e-tailer-to-make-one-too

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information is to launch a similar SB product. A popular example is the laptop stand introduced by AmazonBasics that is a nearly identical version of the Rain Laptop Stand which received extremely positive reviews.[4] The second option for the retailer is to launch an SB that provides a "better" fit than the NB. One such case is the Insignia spill-resistant portable DVD player of Best Buy with ruggedized exterior and simplified interface. Introduced in 2007 after noticing that many portable DVD players were purchased for young children, it became a top seller and received a Red Dot Award (Bustillo & Lawton, 2009). In this example, NBs like Samsung and Sony perhaps overestimated the demand from tech-savvy consumers and underestimated the demand from adults with children – and, therefore, targeted the small segment with the product features included. The third option for the retailer is to share the taste information with a brand manufacturer in the spirit of "collaborative innovation" so as to develop better retailer-exclusive NB products. For instance, with its Blue Label brand, Best Buy shares information with Intel, Sony, and Toshiba as a part of their "You Spoke, We Listened" customization program, which continually incorporates consumer feedback into the product development process. These two examples clearly illustrate that consumers' taste information play, a role in the positioning of SBs in terms of product features.

In order to shed light on how the acquisition of consumer taste information by the retailer affects the positioning of the NB and the SB, we analyze a one-manufacturer and one-retailer supply chain. We model "taste" through the size of the consumer segment interested in a particular product feature such as screen resolution, shock resistance, etc. As such, we model the uncertainty in consumer taste as the uncertainty in the size of the consumer segment that prefers a particular product feature. Accordingly, being informed about consumer taste in our model setting means knowing the exact size of each segment. Our analysis consists of three steps.

1. We first characterize the equilibrium pricing strategy given the product features and taste information. In addition to the horizontal product differentiation that arises from heterogeneous consumer taste, our model captures the vertical differentiation between the brands and the heterogeneity in consumer valuation.
2. We characterize the exact NB and SB positioning strategies by analyzing the signaling game in which only the retailer is informed about consumer taste. Determining the separating perfect Bayesian equilibrium, we characterize the conditions under which the retailer shares (or withholds) information and how this affects the positioning of the NB and the SB.
3. We analyze the equilibrium positioning and pricing strategies when neither of the chain partners is informed about consumer taste.

Through the comparison of optimal profits when the retailer is informed about consumer taste and when not, we derive the strategic value of information acquisition, which can then be traded off against the cost associated with acquiring it. Fig. 1 provides an illustration of the models that we analyze and compare in this paper.

In terms of the pricing decisions, our analysis shows that, as expected, if the NB and the SB integrate identical features into their design, then the degree of horizontal differentiation between them is reduced, which intensifies the price competition between the NB and the SB, and this decreases the degree of double marginalization for the NB. Consequently, the retailer attains higher profits from the NB while the manufacturer is hurt. The reverse is also true in that the manufacturer benefits if the SB has different features than the NB.

In terms of the product positioning decisions, we show that the retailer may *imitate* the manufacturer by duplicating the features of the NB – to achieve higher profits from the NB, as mentioned above – or *differentiate* by integrating different features in the SB. The specific strategy that benefits the retailer the most depends on the size of the consumer segment targeted by the NB: it is to the benefit of the retailer to imitate if the NB is targeting a very large consumer segment, and differentiate otherwise. In a similar vein, the manufacturer can also position its NB to target a large segment, or strategically stay away from that segment – to reduce the degree of price competition between the NB and the SB – by proactively recognizing that the retailer will then imitate.

In terms of information acquisition, we pinpoint two fundamental effects. The *direct effect* is that being informed about consumer taste allows the retailer to integrate the popular features into its product design as opposed to guessing what features will be popular. The *indirect effect* is that if the retailer shares taste information, then the manufacturer can also integrate the popular features into its product design. *As a result, through strategic information sharing, the retailer can influence the positioning of the NB even when the manufacturer moves first*. We show that these two effects interact with each other and that the nature of their interaction varies with operating factors such as the cost of SB introduction, the degree of vertical differentiation between the brands, and the relative sizes of the consumer segment interested in each product feature. On one hand, if the market is skewed, i.e., a majority of consumers prefers a particular feature, then both the direct and the indirect effects are positive for the retailer. In fact, the indirect effect augments the direct effect. The retailer shares information with the manufacturer so that the manufacturer targets the large segment. The retailer imitates and also targets the same segment. This a very beneficial scenario for the retailer as it is able to target a large consumer segment and also control the wholesale price of the manufacturer by the presence of the SB. As a result, the retailer shares taste information with the manufacturer, and both parties benefit from information acquisition. On the other hand, if the market is symmetric, i.e., all the product features are more or less equally popular, then the indirect effect is negative for the retailer and diminishes the value of the direct effect – which motivates the retailer to withhold information.

In terms of the value of information acquisition, we show that the retailer benefits from ex-ante information acquisition. We also show that the retailer's information acquisition about consumer taste hurts the manufacturer unless the SB introduction is very costly for the retailer. This is in contrast with the existing literature, which shows that the ex-ante value of information acquisition may be positive for the manufacturer when its impact on pricing decisions is considered. Another contrast of our findings is that the retailer may benefit from information disclosure by influencing the positioning of the NB.

We also generate managerial insights regarding the value of consumer taste information for the retailer with respect to the cost of SB introduction. It is plausible that retail managers consider an information acquisition decision concurrently when introducing an SB; therefore, we investigate how that cost shapes the value of consumer taste information. According to our analysis, retail managers should be cautious about these decisions since the cost of SB introduction has a non-monotonic affect on the value of information acquisition for the retailer.

2. Related literature

The contribution of this paper to the extant literature is that we identify how a retailer's acquisition of consumer taste information shapes product positioning in the context of NB and SB

[4] Nick Bravo, "Amazon Private Labels Threaten Manufacturers", July 05, 2016, http://trustedinsight.trendsource.com/trusted-insight-trends/amazon-private-labels-threaten-manufacturers