Category Management: Essays on Consumer Loyalty, Demand for Variety and Private Label Offerings

Abstract

My research in this dissertation focuses on the questions of loyalty and product variety. Different product categories and different contexts of a consumer present to a researcher the need to understand important facets of loyalty and demand for product variety, even though both themes have been researched extensively. The understanding of these two themes has been important for a retailer to manage his categories – in terms of planning category level discounts, changing products in the category, introducing a private label in the category and even communicating about new brands in a category. On the question of loyalty, I offer an explanation as to why brand loyalty should arise – I argue the brand loyalty arises due to risk-averse consumer learning about quality of a brand through repeated consumption experience and further establish consumers explicitly consider information value of choice in their decisions. In the context of a new brand introduction, differential learning about quality in discrete consumer segments can be estimated by proposed use of Conditional Choice Probability estimator of dynamic discrete choice model; and further the marketer-retailer can target the slow learning segment. The discrete segment learning model allows a marketer, introducing a new brand, to decide between promotional introductory price cuts and learning oriented communication in order to target two differentially learning consumer segments.

The brand loyalty in purchase patterns observed in a highly differentiated product category in our context of a leading organized Indian retailer is markedly different from those researched elsewhere. Consumers demand models are unit demand models (choice of single brand) in a category like laundry detergents; however consumers in our context carry out multi-unit and multi-brand purchases even including simultaneous purchase of brands that are not vertically differentiated. The context is further defined by a retailer introducing a private label that mimics two mid-tier national brands; the retailer carries out price promotions on the private label. I find that the promotional price cuts on this private label do not work in the same way as those on national brands i.e. the price promotions on the private label do not work to carry out intertemporal price discrimination that national brands try to achieve with price promotions. I establish that the price promotions on the private label lead to loyal consumers accelerating their purchases; whereas those on competing mid-tier national brands lead to both brand switching and purchase acceleration. Price promotions on premium tier brands led

to category expansion (purchase acceleration on brand with price promotion as well as quantity expansion on brands in other tiers).

The demand for product variety is also an essential consumer behaviour feature that a retailer must understand. I attempt to address two questions with product variety – how does joint consumption in a category inform us about category level discounts and is the retailer better off introducing more than one private label in a differentiated product category.

In a product category like Carbonated Soft Drinks (CSD), two types of consumption are observed – immediate consumption defined by convenience stock keeping units (cans or smaller bottles) and futuristic consumption defined by storable stock keeping units (large bottles). Given the households with different members have member level taste heterogeneity, I illustrate the suitable functional form utility models can use to model the purchases of one or more CSD brands on an occasion. I model how a consumer values satiation faced with choice of immediate joint consumption and futuristic consumption. As the analysis shows, the implication has been for a retailer to use the flavour specific preference estimates to plan the discounts rather than offering category level discounts across brands. On the question of two private labels in the same product category, I find empirical evidence using a structural econometric demand model for the propositions by Sayman et al (2002). It is established empirically that more than one private label (two or more) are feasible when the price elasticities for brands in category are low.

For addressing these research questions, quantitative marketing research techniques have been used: first a model of consumer behaviour (economic model or a descriptive model based on data and distributions) is specified, the model is then estimated using secondary data source – panel data of purchases in a specific product category. The inference is drawn based on these estimates or other metric such as price elasticities or counterfactual policy evaluation.