# Price Competition With Repeat, Loyal Buyers 

By Nanda S. Kumar and Eric T. Anderson

Many empirical studies have established that state dependence-the combination of factors affecting preferences and decision making-varies across consumers, brands and categories. Analytic models have assumed that this combination does not vary across firms. In contrast, Nanda S. Kumar, an SOM associate professor of marketing, and his co-author, Eric T. Anderson, an associate professor at Northwestern University, take the view that decision making and preference vary by firm. That is, a well-known national brand, such as Tide detergent, may be able to attract more repeat, loyal buyers than a lesser-known rival brand. While this view is supported by empirical research, it has not been previously considered in analytic models. (Their completed work is published in Quantitative Marketing and Economics, www.springerlink.com/content/111240 j).

Importantly, we show a firm's relative ability to attract repeat, loyal buyers has surprising implications for pricing strategies. This single effect can explain why leading brands such Parkay and Peter Pan may offer both the lowest average price and the most frequent promotions. For managers, this result shows that frequent, deep promotions may be optimal to maintaining a dominant market position.

In this sense, we identify an alternative pricing strategy that a manager should consider to build and maintain a leading brand. While a strategy of low prices and frequent promotions is not always profitable, our model identifies conditions under which this strategy is optimal.

We also find that profits of a firm may increase when a weak competitor gets stronger, that is, is able to attract more repeat, loyal buyers because both companies have a devoted consumer base that will support price increases. But if a firm becomes weaker, it may lower the price of all firms and erode industry profits. An implication for managers is that a leading brand must be cautious using tactics that weaken a rival as this may lead to the unexpected consequence of lower industry prices and profits for both firms.

Our findings on price correlations complement extant theoretical research on price promotions and price cycles. Consistent with this literature, we show that strong firms exhibit high-low pricing or negative serial price correlation. However, strategic price effects may lead a weak competitor to mimic the behavior of the strong firm, which may lead to both positive serial and contemporaneous price correlations.

We note that these findings are entirely due to competitive effects; in the absence of competition, a weak firm would exhibit negative serial price correlation. For practitioners, these results show when it is optimal for a weaker brand to mimic a stronger rival's pricing strategy. If the firms are sufficiently
asymmetric in their ability to attract repeat, loyal buyers, then mimicry of the competitor's pricing strategy is optimal.

This paper incorporates consumer dynamics well-established in empirical marketing studies. The model allows us to highlight how firms' ability to attract repeat, loyal buyers affects pricing strategies and profits.

