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Strategic Implications of Keeping Product Value Secret from Competitor's Customers☆

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Abstract

Customers can sometimes learn unanticipated or hidden use value of a firm's product whereas the non-customers remain uninformed about that extra value. A monopolist will increase its profit by informing the non-customers of its product's hidden value. However, our analysis reveals that this may not be true when the firm faces competition in the market—the firm may actually make a higher profit if it keeps its hidden value secret from its competitor's customers even if advertising to inform those customers is costless. This is because no advertising leads to information heterogeneity among consumers about the existence of the firm's hidden value, which gives an incentive for both firms to continue targeting their own existing customers rather than poaching each other's customers, alleviating price competition and increasing firms' profits. This beneficial strategic effect of keeping some product value secret from the competitor's customers can persist even when the firms anticipate the hidden value and compete more aggressively for customers in the early period. Our research suggests that firms can benefit from an "under-promise and over-deliver" strategy if they refrain from communicating their extra value to the competitor's customers. Moreover, positive word of mouth about a firm's product will not necessarily benefit the firm and can in fact make *all* firms worse off.

Keywords: Dynamic pricing; Competitive strategy; Information disclosure; Advertising; Targeted marketing; Word of mouth

Introduction

The extant literature in psychology and consumer behavior has extensively studied the phenomenon of surprise. According to Meyer and Niepel (1995), "surprise is elicited by unexpected events, that is, by events that disconfirm, contradict, or violate an expectation." Casti (1995) notes that surprise represents the gap between expectations and reality. In practice, surprises can make consumers' post-purchase valuation of a product significantly different from their pre-purchase expectation. For example, some restaurants offer complementary appetizers to patrons, and often they do not advertise it on their websites or menus. Customers dining at those restaurants for the first time are pleasantly surprised to get the free appetizers. Similarly, some retailers surprise their customers by giving them unanticipated gifts or services. For example, customers at Snyder's, a grocery store in Kansas City, were

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surprised to receive free holiday presents.[1] Some retailers such as Bloomingdale's offer free alterations without advertising that information on their websites.[2] New shoppers at Trader Joe's tend to find unexpected values which are not advertised on Trader Joe's website. For example, Trader Joe's has a no-questions-asked return policy for any product that it sells and in some of its locations it has an in-store treasure hunt for children.[3] Sometimes the extra product value to the customers may also come as a surprise to the firms themselves. For example, Intuit, the creator of a leading home-finance management program Quicken, was surprised to learn that many small business owners prefer its product mainly for its user friendliness relative to other accounting software programs.[4] In these examples, a firm's customers learned the positive, unexpected value with respect to some attributes of the firm's product, which can affect the customers' future purchase or subscription decisions.

Surprises about products are not always positive. A negative surprise can make customers reluctant to use the same product or service again. Naturally, firms will gain by publicizing the negative aspects of the competitor's product to strengthen their own product's competitiveness. If the competitor's product delivers some unexpected *positive* value to customers, then clearly other firms will have no incentive to publicize it since that would make the competitor's product more attractive. But will the competitor itself necessarily benefit from advertising its positive "hidden" value to all consumers? One might intuit so, but anecdotes show that sometimes firms do not advertise the full values of their products or services even when doing so requires no or very minimal additional cost as in the free-appetizer example. For example, Alaska Airlines offers $25 or 2,500 bonus miles to customers whose baggage does not arrive at the carousel in 20 minutes, but it does not advertise this. In another example, Zappos, a leading online shoe and clothing retailer, decided to stop explicitly mentioning free overnight shipping on its website, and when asked, it gave customers the following explanation:

> "*It's . . . a decision to stop advertising and promoting it, not a decision to actually stop doing it. This means that the vast majority of our customers will still get their orders as quickly as they have in the past. The only difference is that we made the decision to not advertise or promise it.*"[5]

One plausible rationale for such an "under-promise and over-deliver" practice may be that if free overnight shipping is explicitly stated, customers might be upset in rare cases when Zappos' shipments get delayed due to unexpected factors such as weather or accidents. Hence, Zappos does not want to advertise or explicitly promise free overnight shipping even though it continues to ship products as fast as before. The central research question of this paper is, when there are no risks or uncertainties in a firm's ability to provide its product or service, will the firm always benefit from advertising the hidden positive value of its product or service? We provide an alternative strategic explanation for why a firm may prefer *not* to advertise its hidden or surprise value even if advertising is costless.

We develop a dynamic two-period game-theoretic model with two horizontally differentiated firms. Some attribute of firm 1's product will enhance the customer's post-purchase use value, but consumers do not know or anticipate that value before their first-period purchase decision. After the first-period purchase, firm 1's customers will learn and experience product 1's hidden value whereas firm 2's customers will remain unaware of that value. In the second period, firm 1 will decide whether to advertise its hidden value and what price to charge. If advertising is done, firm 2's customers will also become aware of product 1's hidden value, otherwise they remain uninformed. After firms adjust their second-period prices, consumers will make their purchase decisions for the second period.

Consumers are often boundedly rational—they will not make sophisticated inferences about the product's surprise value based on the firms' prices. This is a reasonable assumption since in practice many factors, for example the firm's production and distribution costs or various market demand conditions, can influence a firm's pricing decision. The exact rational inference about which of these many factors has caused a price change will require the consumer (or even experienced researchers for that matter) to incur a very high cost of thinking or deliberation. There is also some anecdotal evidence that in reality many customers have truly not expected some surprise or hidden values of the product they purchased—ex ante they did not expect or think about the possibility of the surprise value of the product, that is consumers may be unaware of or have unknown unknowns. Thus, our assumption that consumers exhibit bounded rationality and do not consider the firms' prices as signals for the hidden *unexpected* value is reasonable and reflects the reality well.

We analyze firm 1's incentives to advertise its hidden value and the impact of its advertising decision on the competitive market outcome. Note that if firm 1's hidden value becomes known to firm 2's customers, their willingness to pay for product 1 will increase. Despite this positive direct effect, our analysis reveals that under some conditions firm 1 is better off by not advertising its hidden value even if advertising is free. The intuition is as follows. Advertising the hidden value will induce firm 2 to reduce its price

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[3] http://www.popsugar.com/food/Trader-Joe-Return-Policy-40812355 and http://outwiththekids.blogspot.com/2006/09/trader-joes-grocery-store-kids.html; last accessed April 2017.
[4] "Learn or Die: Using Science to Build a Leading-Edge Learning Organization" by E.D. Hess, p. 173.
[5] http://consumerist.com/2008/02/20/zappos-we-want-to-be-known-as-a-customer-service-company-not-a-marketing-company/, last accessed February 2015.