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Response to Competitive Entry: A Rationale for Delayed Defensive Reaction

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Abstract

Empirical studies examining responses to new product entries come to the puzzling conclusion that, in general, an incumbent reacts to a new entrant after a significant delay. Even easy-to-implement price cuts are observed after significant lag following entry. These findings seem to contradict the existing literature that either implicitly assumes or strongly advocates immediate defensive responses to limit competitive encroachment. When a competing firm enters the market, consumers may be uncertain about the entering firm's product quality. The incumbent firm (through rigorous tests) may fully know the entrant's quality. Suppose the incumbent aggressively lowers price. This may cause the consumers to wonder if indeed the entrant's quality is high. In other words, an incumbent's reaction may cause the consumers to make inferences about the entrant's quality. Such strategic implications of the incumbent's reactions have to be carefully analyzed before determining the optimal response by the incumbent.

In this paper, we propose a conceptual framework for understanding differences in the magnitude and timing of incumbents' responses to competitive entries. We consider a model in which a monopolist incumbent firm faces competitive entry. The incumbent firm knows the true quality of the entrant with certainty. Although consumers are aware of the incumbent's product quality through their prior experience, they are initially uncertain of the entrant's product quality. In such a situation, a high-quality entrant has the incentive to signal her true quality through her strategic price choice. However, the uncertainty about the entrant's quality is favorable to the incumbent in the sense that consumers believe with a high probability that the entrant's quality is low. As a result, the strategic incentives facing the incumbent and the entrant oppose each other. While the entrant wants to signal her high quality, the incumbent wants to prevent her from doing so. We demonstrate that one way the incumbent can prevent the quality signaling is to select a higher than his optimal competitive (duopoly) price. In other words, the incumbent can prevent or "jam" the entrant's quality signaling by choosing a price higher than his optimal competitive price when consumers are fully informed about the entrant's true quality. Though the signal-jamming price is lower than the monopoly price, the price is substantially higher than the competitive price. This marginal reduction in the incumbent's price from the pre-entry monopolistic price represents a muted or lack of response by the incumbent to the competitive entry. However, once the entrant's quality gets revealed in subsequent periods through consumer usage and word of mouth, the entrant has no incentive to engage in quality signaling and the incumbent has no incentive to jam it. Therefore, the market reverts to the complete-information competitive prices, and the incumbent lowers his price considerably. This temporal pattern of muted price reduction in the first period followed by a sharp price reduction in the second period corresponds to a delayed defensive reaction in our model. Although the empirical studies suggest that the delayed reaction may arise due to factors such as managerial inertia or indecision, we demonstrate that such a behavior is indeed an optimal strategy for a profit-maximizing firm. Thus, our model reconciles empirical results with the equilibrium outcome of a strategic analytical framework.

Furthermore, in an experimental setting, we test the predictive power of our framework and establish that consumers indeed form conjectures about the entrant's quality based on the incumbent's reactions. In the first experimental study, we find strong support for the notion that the incumbent's price reaction may indicate entrant's quality. In a follow-up study, we observe that whenever the incumbent lowers prices, respondents judge the quality of the entrant to be higher as compared to the case when prices are the same or increased. The managerial implication of this paper is that well-established incumbent firms should be cautious in the implementation of their defensive responses to product introductions of uncertain quality by competitors. Of particular concern are situations where the reactions are easily observable by consumers. A strong reaction may suggest that the incumbent takes the competitive threat seriously, leading consumers to believe in the quality of the competitor's product.

(*New Product Entry*; *Defensive Reaction*; *Quality Signaling*; *Price-Quality Relationship*; *Signal Jamming*; *Asymmetric Information*)