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First-mover disadvantages with idiosyncratic consumer tastes along unobservable characteristics

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Abstract

Upon entering a market, a first-mover often preempts the best market location and outperforms followers in competition. Conversely, late entrants are in better positions to learn more about demand by adopting a "wait-and-see" strategy and then enjoy superior performance. This paper demonstrates first-mover disadvantage, even in the absence of follower's informational advantage, by using a standard spatial competition framework. Specifically, a first-mover gains a substantial advantage over followers when firms correctly predict individual consumer choices with their market locations. However, the first-mover obtains lower sales and profit when consumers exhibit large idiosyncratic tastes along unobservable characteristics.

JEL classification: L11; L13; L15; M31; R39
Keywords: Location decisions; First-mover disadvantage; Consumer heterogeneity; Unobservable characteristics; Logit model

1. Introduction

Should you enter a new market before or after your rivals? This is one of the most fundamental decisions encountered whenever a firm establishes its retail store in a geographic market segment or when it positions a new product in the characteristics space.

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Entry order takes precedence over production and marketing decisions and has significant consequences for the long-term market performance of a firm. In the last two decades, numerous empirical studies in marketing have shown that first-movers achieve substantial competitive advantages and are likely to be market leaders in their product categories (Robinson and Fornell, 1985; Urban et al., 1986).

Most theoretical literature has addressed the issue of first-mover advantage from the perspective of firms' sequential market entry in a spatial competition framework (Prescott and Visscher, 1977; Lane, 1980; Anderson, 1987; Tabuchi and Thisse, 1995, to mention a few). When entering a market, a Stackelberg leader anticipates following firms' reactions to its strategies and incorporates them into its own decision making. Using such strategic foresight, a first-mover preempts later entrants by adopting the best market locations (Tabuchi and Thisse, 1995). Preemptive positioning then enables the first-mover to charge a premium price, leading to higher sales and profit. In less attractive segments, on the other hand, later entrants should offer bargain prices in order to compete with pioneering incumbents and attain lower sales and profits. First-movers may also preempt superior strategic resources in the factor market (Rao and Rutenberg, 1979). Thus, comparative advantages in production and distribution enable the pioneer to outperform later entrants in competition and lead to above normal returns for the first-mover.

Schmalensee (1982) shows that imperfect information on the part of consumers leads to first-mover advantage as well. If consumers are satisfied with the first brand (or store) in a new product category, they will favor it over later entrants because they are uncertain that the followers' brands satisfy their needs. First-movers will then sustain a high market share and profits so long as consumer experience remains as a crucial information source of product quality. In addition, first-movers can increase switching costs by developing brand-specific user skills and influencing consumers' evaluation of products (Stigler and Becker, 1977).

A growing body of recent empirical evidence, however, questions this entry order effect on the market performance of a product and presents the cases of first-mover disadvantage. Golder and Tellis (1993), for example, report that only 53% of first-movers survive in the market. Kalyanaram et al.'s (1995) survey of various industries also shows mixed results and suggests that the order of market entry does not appear to be related to long-term market performance. First-movers bear a higher risk of new product failure since it is unusually hard to forecast sales for a pioneering brand. And, while we have observed a remarkable progress in research methodology, we still cannot eliminate uncertain consumer responses to a pioneering innovation (Hamel and Prahalad, 1994). In contrast, late entrants are in better positions to learn more about consumer demand by adopting a "wait-and-see" strategy. Later entrants may achieve higher sales and profits when their informational advantage prevails over any first-mover's advantage arising from preemption and switching costs.

Gal-Or (1985, 1987) analytically proves the disadvantages of moving first, even when both pioneer and later entrant are equally able to assess demand through market research. Gal-Or (1987) models a duopoly where firms choose output quantities under the assumption of incomplete information regarding stochastic demand. The follower has an informational advantage not only because it directly observes market conditions, but also because it makes inferences about market conditions based on the first-mover's quantity