Abstract
The increasing availability of customer information is giving many firms the ability to reach and customize price and other marketing efforts to the tastes of the individual consumer. This ability is labeled as consumer addressability. Consumer addressability through sophisticated databases is particularly important for direct-marketing firms, catalog retailers such as L.L. Bean and Land's End, credit card-issuing banks, and firms in the long-distance telephone market. We examine the strategic implications of consumer addressability on competition between database/direct marketing firms. We address questions such as: In a competitive environment, how should firms invest in addressability? Will future improvements in the degree of addressability increase or mitigate the intensity of competition between the firms? Will greater addressability always be beneficial for firms?

We model competition between two firms in a market where consumers differ on a horizontal attribute of product differentiation. The market comprises consumers located on a linear attribute space and firms located at the ends of the line. We represent the degree of addressability (or the reach of a firm's database) as the proportion of consumers at each point in the market who are in the firm's database. Consequently, the firm can offer these consumers customized prices.

Consumer addressability creates two effects that govern the competition between firms: a "surplus extraction" effect because a firm might address a consumer who is not reached by its competitor and a "competitive" effect that is created by the set of consumers who can be addressed by both firms. The key results of the paper pertain to when the addressability decision is endogenous. When the extent of market differentiation (or consumer heterogeneity in preferences for a product/brand attribute), as well as the incremental cost of addressability, are sufficiently large, firms make symmetric investments in equilibrium. Given high costs, firms choose sufficiently low levels of addressability. Low addressability and high levels of market differentiation both help reduce price competition, which facilitates symmetric choice of addressability by the firms in equilibrium. However, when market differentiation and the cost of incremental addressability become small, firms face the prospect of destructive competition. As a result, they strategically differentiate in their choice of addressability to mitigate this competition. Interestingly, even in the extreme case when incremental addressability is costless, not every firm chooses full addressability in equilibrium. This has useful implications for direct marketing. Given that the advances in information technology should improve the ability of firms to address their consumers, it might indeed not be desirable for all direct marketing firms to indefinitely pursue greater addressability as costs of doing so decline. The analysis also shows an interesting effect of market differentiation in addressable markets: Equilibrium profits can decrease with an increase in market differentiation when the marginal cost of addressability is sufficiently high. Finally, we discuss the competitive outcome that would result when firms compete with addressable as well as uniform posted prices.

(Customized Pricing; Direct Marketing; Database Marketing; Consumer Addressability; Marketing Information; Individual Marketing; Competitive Price Discrimination)