

Nonlinear Pricing of Japanese Newspapers

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Abstract

In Japan, the newspapers with the greatest daily circulation offer both morning and evening editions in most of their distribution areas. Their prices per page of actual content are different for morning-and-evening subscribers than for morning-only subscribers, so the subscription price schedules could be described as sliding scales. These are tariff schedules that are step functions, and thus nonlinear. My focus is on two aspects of nonlinear pricing by Japanese newspapers. The first is that pricing and circulation of the differing editions reveal parameters of the demand for newspaper content. I estimate these parameters using nonlinear least squares and find that price elasticity of demand is around 1.2, while elasticity of demand with respect to pages of content is around 0.5. Estimates from micro-data have price elasticity around 1.3 and elasticity with respect to pages of content around 0.4. The second aspect of nonlinear pricing on which I focus is the distorting effect of demanders' incentive compatibility constraints on the newspaper publishers' choice of newspaper content. The newspaper publishers wastefully reduce the number of pages of content of their morning editions to deter morning-and-evening subscribers from cancelling their evening subscriptions. It is wasteful in the sense that the marginal value to subscribers of an additional page of content in the morning edition is less than the marginal cost. But the waste is small. It is here estimated to be around 4 yen per morning-only subscriber per month.

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Keywords: nonlinear pricing, two-sided markets, newspapers, advertising

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