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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