A Model of Pricing in the Sharing Economy: Pricing Dynamics with Awareness Generating Adoptions

Completed Research Paper

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Abstract

We develop a model of providers operating on a Sharing Economy platform where consumers first become aware of a product or service, and then consider adopting it. Past adoptions increase the likelihood that future consumers will discover the provider, but awareness also decays over time. We exhibit that pricing dynamics for products and services of short life span are consistent with penetration pricing. For products with longer life spans, the relationship between population awareness and price is non-monotonic, and consistent with a tipping point in the adoption process. Providers price higher when they have either achieved high awareness or have been positioned in a market niche. Fees levied by the platform adhere to the double-marginalization effect. Our model positively explains empirical observations, including the significant price fluctuation and the emergence of niche and superstar providers.

Keywords: Sharing economy, collaborative economy, electronic markets, ecommerce, p2p, social influence, diffusion, dynamic programming