Optimal Merchant Fee Discrimination by Marketplace Platforms

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Abstract

Marketplace platforms often charge different fees across markets. For example, eBay and Amazon each have more than 50 different merchant fee classifications and Airbnb's service fee algorithm uses transaction level characteristics to determine service fees. To better understand the implications of merchant fee discrimination I develop a simple model of a monopoly platform that facilitates transactions in a variety of markets that differ in demand, cost, and competition characteristics.

With a limited number of categories to charge different fees, I find that the platform aggregates markets based on their profitability, with more profitable markets being collected into more refined categories and the within category fee being skewed toward the high profit markets. Lastly, numerical exercises suggest that (1) ad valorem fees out preform fixed fees for platform profits and total welfare and (2) equilibrium surpluses quickly approach their perfect price discrimination levels as the number of marketplace fees increases.