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SEMINAR

"How does tariff structure affect consumption for access services?"

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Abstract:

Firms introducing new access services often grapple with the choice of a pricing structure: should they charge on the basis of usage only (per-use), or charge an additional access fee (two-part tariff)? Would usage behavior differ under different pricing structures? Economic theory suggests that, conditional on participation, access fees should have no impact on usage. Recent research in behavioral decision theory, however, indicates that people are sensitive to past fixed costs when making current consumption decisions. Therefore, this study investigates how the pricing structure of access services (per-use versus two-part tariff) impacts the utility users derive from usage. We develop a model where users' preferences depend on the pricing structure: the parameters of the utility function are allowed to differ across pricing structures. We account for the trade-off in expenditure between the focal service and other products by explicitly linking the consumption of the service with an outside good. This allows us to jointly model the "whether" and "how much" to consume decisions, thereby accounting explicitly for attrition. Using data from a field experiment, we find that the model parameters do depend on the pricing structure: for the same usage level, users in the two-part tariff condition derive a lower utility from consumption. Moreover, ignoring the impact of the pricing structure on users' preference structure overestimates the utility that a user in the two-part tariff condition derives from usage. This leads firms to charge higher than optimal access fees and generating higher levels of churn among users. Model fit is substantially better when the impact of the pricing structure on users' preference structure is accounted for as compared to when it is ignored.

Keywords: Pricing, Consumer Preferences, Bayesian Econometric