Explaining the interplay between merchant acceptance and consumer adoption in two-sided markets for payment methods by K.P. Huynh, G. Nicholls, O. Shcherbakov

Discussion by D. Salakhova
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An interesting and well-written paper.

An elegant model of two-sided markets for payment methods.

Static (one-shot) model of consumer choice, quite straight-forward and rich.
Summary of the paper: Model

The model proceeds in two steps:

- **1st stage.** Consumers adopt one of 4 payment combinations: cash, cash and debit, cash and credit, and all methods; merchants choose which methods they accept out of these 4 combinations.
- Consumers and merchants are randomly matched for each transaction.
- **2nd stage.** Consumers choose which method to use.
- Both consumers and merchants have beliefs on the adoption/acceptance by the other group.
The MLF is constructed of consumer adoption probabilities, usage decisions and merchants’ acceptance decisions.

The data include:

- for each consumer, a set of transactions with prices, the realized payment method (2nd stage usage decision) and available methods in the consumer pocket (1st stage adoption decisions).
- for merchants: accepted payment methods (1st stage acceptance decisions).

The authors compute elasticities of decisions with respect to variation in usage/acceptance/adoption costs and counterfactual simulations of larger variations in cost of credit cards and cash.
Summary of the paper: results

Three sets of results:

- Estimation results: costs/benefits for consumers/merchants from use of different methods;
- Elasticities with respect to different costs;
- Change in usage probabilities of payment methods given higher variation in costs of credit cards and cash.
Payment process is a dynamic process where the choice of payment method affects the whole stream of payments in the future. Customers may adopt certain payment methods not only based on the current level of acceptance but anticipating higher adoption and acceptance of a certain method in the future.

The model is one-shot game: one choice of payments with multiple matches with merchants for a set of transactions. So it does not account for costs/benefits of using the same payment method in the future.

How the dynamic game can change the equilibrium?
Other comments

- Cash is assumed to be a default option. But given a digitalization of the economy, more and more people prefer to have a card instead of carrying cash. Why not allow for symmetry between cash and credit/debit cards?

- In your survey people had always cash? So there is no possibility for not realized transactions? [More detailed description on the data would be nice (at least in the appendix)]

- You have a nice model but you are a little bit light on policy conclusions? Can you have more on optimal policies like card fees or subsidies to merchants for accepting cards?

- Not clear about the role of informed customers. Probably a different way to think about it is that all customers behave like informed about some transactions and uninformed about the others.