Discussion of “Certification, Reputation and Entry: An Empirical Analysis” by Hui, Saeedi, Spagnolo and Tadelis

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Motivation

Lemons problem (Akerlof):

- Consumers cannot identify low and high quality sellers/goods.
- Only the lowest quality sellers/goods are traded.
- Example: used cars.
- Information asymmetries (presumably) worse in online markets.

Institutions can help with lemons problem:

- Warranties/Guarantees, dynamic reputation, certification.

BUT, these can be barriers to entry.

This paper

What are the 'long-run' effects of introducing (changing) the certification program on eBay?

- Entry: do incentives from higher prices outweigh the barriers to entry?
- Quality: how does overall quality change (entrants v. incumbents)?
- Prices and market shares of incumbents.

Strategy:

- Utilize a policy change that occurred on eBay in 2009 that made certification more difficult.
- Evidence suggests that policy had heterogenous impact across product categories.

Results:

- Stricter certification qualifications $\rightarrow$ increase in entry.
- This entry from top and bottom of quality distribution.
- Incumbents quality does not change.

What I like

Motivation:

- Reputation mechanisms important as these markets continue to grow.
- Clear policy implications.
- Think about LR effects of introducing institution.

Data:

- Proprietary data from eBay.
- Utilize a policy change.

Limitations

Model:

- Are there situations where entry would decrease? Quality decrease?
- What is the role of market power?
- Exit an issue?

Results:

- Can we say something about concentration?
- Effect on consumers?
- eBay revenue? What are eBay's incentives?

Empirical Strategy:

- I wonder about the exogeneity of the instrument.

Identification

The primary analysis utilizes the following DiD specification:

$$Y_{ct} = \gamma E_c Policy + \mu_c + \xi_t + \epsilon_{ct}$$

- Y is some outcome of interest.
- E_c measures the 'exposure' of product category c to the policy.
- Intuition: more exposed categories are 'treated' and less exposed categories are 'control'.
- $E_c Policy$ a 'Bartik instrument'
  - Goal: IV for labor demand in a local market.
  - Interaction between growth of industry across US ($Policy$) and a measure of importance of that industry in the local market (E_c).
  - Example: Mian and Sufi (2012), E_c is ex ante number of 'clunkers'.
- Key assumption: $E_c Policy$ independent of ϵ_{ct}.
- How to measure E_c?

Exposure

In order to calculate the exposure of a given category, run the following regression:

$$\text{ShareBadged}_{ct} = \beta_c Policy + \eta_c + \alpha_c t + \epsilon_{ct}$$

- Use $\hat{\beta}_c = E_c$
- Problem: this is an ex post measure of exposure.
  - ShareBadged_{ct} is an equilibrium outcome that is a function of Y_{ct}.
- Example: if the policy leads to entry in category c, then that is going to affect the share of sellers who are badged.

$$\Delta\text{ShareBadged}_c = \frac{Badged_{ct}}{\text{Incumbent}_{ct-1} + \text{Entry}} - \frac{Badged_{ct-1}}{\text{Incumbent}_{ct-1}}$$

- Result: there is a mechanical relationship between treatment and outcome (more entry $\rightarrow$ lower % badged).

Suggestion(s)

Fortunately, I think this can be solved without too much trouble. Suggestions:

1. Use a measure of ex ante exposure to a given category.
   - On the day the policy was enacted, how many sellers would have received the new badge.
2. Determine categories/goods that would be affected ex ante and use this as control group
   - Categories that have more high volume sellers (?).
   - Categories where quality is more or less salient (e.g., new versus used goods).
3. Take an event study approach for each category.
   - Problem: was the policy change due to falling demand/quality?

Other Suggestions

Estimate other effects of policy:

- Other signals of quality (e.g., photographs).
- Types of products within a category (e.g., name brand v knock off, new v. used).
- Overall price levels.
- Concentration: do powerful sellers become more powerful?

Is Figure 5 (quality result) showing a mechanical relationship?

- If EPP decreased (increased) after the policy, then those sellers are likely to have a low (high) EPP.
- Suggestion: estimate DiD model for some measure of quality dispersion.

Other Random Comments/Questions

- What about dynamic reputation building (through lower prices, e.g.)?
- Do you consider the first stage estimates when you calculate standard errors?
- "...a more stringent badging requirement causes the average quality of both badged and unbadged sellers to increase..." is this always true? It seems like the marginal benefit from being a badged seller may decrease under some circumstances.
- What about exit?
- Why don't incumbents change their quality? Is their a theoretical justification for this?
- Does eBay use this mechanism as a way to align incentives (revenue generation)?
- Why not juse absolute value of $\hat{\beta}$?
- Can we think of you exercise as a test of asymmetric information?