

Two-Sided Search in International Markets (Eaton, Jinkins, Tybout, Xu)

Miklós Koren
CEU

One-slide summary

One-slide summary

- ▶ A search model of suppliers and retailers.
- ▶ Suppliers compete more within retailers than across retailers.
- ▶ Both sides search with endogenous intensity.
- ▶ After matching, they split a joint surplus (avoiding double marginalization).

One-slide summary

- ▶ A search model of suppliers and retailers.
- ▶ Suppliers compete more within retailers than across retailers.
- ▶ Both sides search with endogenous intensity.
- ▶ After matching, they split a joint surplus (avoiding double marginalization).
- ▶ Application for Colombian footwear imports.
- ▶ Skewed (but not Pareto) degree distribution. The median firm has 1 partner.
- ▶ Preliminary quantitative analysis:
 - ▶ large capital value of supplier links
 - ▶ differential impact of search technology

The research agenda

The research agenda

Business model

A business model is a repeatable and scalable process to

1. generate
2. deliver
3. capture

customer value.

The research agenda

Business model

A business model is a repeatable and scalable process to

1. generate (production function)
2. deliver
3. capture

customer value.

The research agenda

Business model

A business model is a repeatable and scalable process to

1. generate (production function)
2. deliver
3. capture (competition)

customer value.

The research agenda

Business model

A business model is a repeatable and scalable process to

1. generate (production function)
2. deliver (distribution)
3. capture (competition)

customer value.

The value of additional suppliers

The value of additional suppliers

- ▶ Two opposing forces of an additional supplier
 1. greater variety to consumers
 2. greater competition among suppliers

The value of additional suppliers

- ▶ Two opposing forces of an additional supplier
 1. greater variety to consumers
 2. greater competition among suppliers

$$\pi_b(n) = K_1 \cdot n^{(\eta-1)/(\alpha-1)}$$

$$\pi_s(n) = K_2 \cdot n^{(\eta-\alpha)/(\alpha-1)}$$

The value of additional suppliers

- ▶ Two opposing forces of an additional supplier
 1. greater variety to consumers
 2. greater competition among suppliers

$$\pi_b(n) = K_1 \cdot n^{(\eta-1)/(\alpha-1)}$$

$$\pi_s(n) = K_2 \cdot n^{(\eta-\alpha)/(\alpha-1)}$$

- ▶ Net effect depends on η and α .
- ▶ How to identify these?

Sales of seller j to buyer i

$$r_{ji} = K_3 \cdot h_{j|i}^{(\alpha-\eta)/(\alpha-1)} \mu_i^{\eta-1} \tilde{c}_j^{1-\eta}$$

- ▶ r_{ji} : revenue
- ▶ $h_{j|i} = r_{ji} / \sum_k r_{ki}$: within-buyer revenue share

Sales of seller j to buyer i

$$\ln r_{jit} = \ln K_{3t} + \frac{\alpha - \eta}{\alpha - 1} \left(\ln r_{jit} - \ln \sum_k r_{kit} \right) + (\eta - 1) \ln \mu_{it} - (\eta - 1) \ln \tilde{c}_{jt}$$

The De Loecker term

- ▶ Firm-level relative prices (unobserved) expressed in inverse demand:

$$p_{ist} - p_{st} = -\frac{1}{\eta}(q_{ist} - q_{st})$$

- ▶ De Loecker (2011) substitutes these out:

$$r_{ist} - p_{st} = \frac{1}{\eta}q_{st} + \frac{\eta}{\eta - 1}q_{ist}$$

- ▶ η can be identified as inverse coefficient of sectoral output.

The De Loecker term

- ▶ Firm-level relative prices (unobserved) expressed in inverse demand:

$$p_{ist} - p_{st} = -\frac{1}{\eta}(q_{ist} - q_{st})$$

- ▶ De Loecker (2011) substitutes these out:

$$r_{ist} - p_{st} = \frac{1}{\eta}q_{st} + \frac{\eta}{\eta - 1}q_{ist}$$

- ▶ η can be identified as inverse coefficient of sectoral output.
- ▶ What (s, t) variation can identify this?

Exploit variation in n

- ▶ What happens to other sellers when a buyer adds/drops a seller?
- ▶ Most of the variation is $\{0, 1, 2, 3, \dots\}$.

Search technology

Search technology

- ▶ Search technology is crucial for counterfactuals.
 - ▶ degree distribution
 - ▶ transitional dynamics
 - ▶ value of supplier matches

Search technology

- ▶ Search technology is crucial for counterfactuals.
 - ▶ degree distribution
 - ▶ transitional dynamics
 - ▶ value of supplier matches
- ▶ Difficult to identify from cross section.

Search technology

- ▶ Search technology is crucial for counterfactuals.
 - ▶ degree distribution
 - ▶ transitional dynamics
 - ▶ value of supplier matches
- ▶ Difficult to identify from cross section.
- ▶ Match joint dynamics of n and r ?