Cost Coordination

June 23, 2023

Paper's motivation

Optimal pricing requires information held by lower-level managers.
Colluding upper-level managers choose:

- **Collusion with price tailoring**
  - Prices set by lower-level managers involved in the scheme.
  - Very risky!
- **Collusion without price tailoring.**
  - Uniform pricing set by the upper-level managers.
  - Less risky, but foregoes profits from price discrimination.
- **Competition with price tailoring.**
  - Prices are set competitively by lower-level managers.

Even without involving lower-level managers, higher prices can be induced by **inflating** costs.

Upper-level management can coordinate this cost manipulation.

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Model

Symmetric oligopoly setting with differentiated products and common cost.

Each firm has two management levels: U and L.

U chooses between

- **Centralization:** uniform price p.
- **Decentralization:**

Payoff of U and L proportional to profits.

Two important assumptions:

- L unaware of collusion (interprets the report at face value).
- Reports are verifiable.

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General Comments

Interesting, well-motivated question.

- Seems to be first-order in some real collusion cases.
  - e.g. EU trucks cartel.
- Elegant treatment that delivers sharp, natural implications.
  - Cost coordination is more attractive with higher market heterogeneity and product differentiation.

My main comments:

- Equilibrium selection.
- Modeling choices.

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Equilibrium Multiplicity

CS one sender/one receiver cheap-talk model:

- Multiple equilibria.
- Pareto ranked by information transmission.
- Typically, focus on the most informative equilibrium.

This paper: multiple senders/receivers.

- Multiple equilibria as well.
- Not true that these are Pareto ranked by information transmission.

Competitive Solution: Firms might have higher profits if L-managers don't learn anything about the costs.

Arguments to focus on the most informative equilibria? Equilibrium selection?

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L is unaware of collusion.

- L prices according to the competitive solution $p^N(a, x)$.
- U knows this and reports accordingly.

Concern: L might eventually suspect that collusion is taking place.

- Inconsistencies between reports and realized profits.
- If so, why not include them in the scheme?

If L takes the report at face value, what is the relationship with a model in which U chooses the true compensation of L?

- In the competitive solution, the report is about own but also competitors' costs.

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Other comments and extensions

Justification for uniform pricing?

Verifiability of reports. How credible is this in practice?

Interesting extensions?

- Asymmetric costs.
- Business owners?

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