

Discussion:  
“Delegation and Strategic Collusion under  
Antitrust Policies: An Experiment”

Duk Gyoo Kim

SKKU

Feb 7, 2024

Korea's Allied Economic Associations Annual Meeting

# Experimental Setup

## Delegation+Communication (DC) Treatment

- ▶ Two firms of two players: Two owners and two managers.
- ▶ Stage 1: Owners choose either P contract (manager gets paid based on the firm's profit) or R contract (manager gets paid based on both profit and revenue).
- ▶ Stage 2: Managers chat for a minute and choose either H (competitive output) or L (cartel output). When both firms choose L, it is a cartel.

# Experimental Setup

## Delegation+NoCommunication (DN) Treatment

- ▶ Two firms of two players: Two owners and two managers.
- ▶ Stage 1: Owners choose either P contract (manager gets paid based on the firm's profit) or R contract (manager gets paid based on both profit and revenue).
- ▶ Stage 2: Managers ~~chat for a minute and~~ choose either H (competitive output) or L (cartel output). When both firms choose L, it is a cartel.

# Experimental Setup

## NoDelegation(ProfitMax)+Communication (PC) Treatment

- ▶ Two firms of two players: Two owners and two managers.
- ▶ Stage 1: Owners ~~choose either P contract (manager gets paid based on the firm's profit) or R contract (manager gets paid based on both profit and revenue).~~
- ▶ ~~Stage 2: Managers~~ chat for a minute and choose either H (competitive output) or L (cartel output). When both firms choose L, it is a cartel.

# Experimental Setup

## NoDelegation(ProfitMax)+NoCommunication (PN) Treatment

- ▶ Two firms of two players: Two owners and two managers.
- ▶ Stage 1: Owners ~~choose either P contract (manager gets paid based on the firm's profit) or R contract (manager gets paid based on both profit and revenue).~~
- ▶ ~~Stage 2: Managers chat for a minute and~~ choose either H (competitive output) or L (cartel output). When both firms choose L, it is a cartel.

# Antitrust Policy and Research Question

**Antitrust policy:** A cartel (both firms choosing L) is detected and penalized with a 15% chance.

Question: Under antitrust policies, how would delegation (and communication) impact firm manager's behavior?

## Findings and What I Liked

- ▶ (L, H), (H, L), (L, H), (H, L)... is a clever way of forming a cartel, avoiding antitrust regulations of penalizing (L, L). This pattern of “switching cartel” is observed in the C treatments.
- ⇒ This evidence illustrates “under antitrust laws, a different form of cartel is possible in the regulatory blind spot.”
- ▶ Overall number of cartels are similar, but delegation may lower the frequency of “switching cartels.”
- ⇒ Makes sense. In PC, alternating (L, H) and (H, L) is implementable upon two players agree with each other. In DC, switching cartels is beneficial to managers upon two player agree with each other, and two owners choose P policy.

## Comments

1. Communication is a key factor in experimental design. I hope it to be discussed more upfront. The connection between delegation and communication needs to be enunciated.
2. Owners chat in PC, but managers chat in DC. Not sure if it is directly comparable.
3. A novelty of this study is to add an antitrust policy. This policy, however, doesn't affect the theoretical predictions because (L, L) is strictly dominated in all cases.
4. Somewhat hard to define "switching cartel." I'd say a 'pair' of (H,L) and (L,H) is the shortest length for the switching cartel.
5. All rounds are paid. It enables managers to collaborate in several rounds. Managers are typically short-lived.



## Regarding Comment #3

		U <sub>2</sub>	
		L	H
U <sub>1</sub>	L	125, 125 (85%) or 102, 102 (15%)	(93, 141)
	H	(141, 93)	(111, 111)

(a) (P, P)

		U <sub>2</sub>	
		L	H
U <sub>1</sub>	L	138, 124 (85%) or 112, 101 (15%)	(95, 145)
	H	(148, 94)	(88, 107)

(b) (P, R)

		U <sub>2</sub>	
		L	H
U <sub>1</sub>	L	124, 138 (85%) or 101, 112 (15%)	(94, 148)
	H	(145, 95)	(107, 88)

(c) (R, P)

		U <sub>2</sub>	
		L	H
U <sub>1</sub>	L	128, 128 (85%) or 102, 102 (15%)	(83, 150)
	H	(150, 83)	(108, 108)

(d) (R, R)

Table 6: The four possible payoff tables for managers in DN and DC treatments

## Minor comments

- ▶ It would've been better to explain why using specific framing (“owners and managers”) is more proper than abstract framing. I tend to prefer the latter.
- ▶ Comprehension checked? In C, subjects get another chance to figure out the payoff matrix, while in N, a confused subject may be stuck at the wrong thought.