

The Emergence of Reputation: The Role of Direct and Indirect Costs of Information Sharing

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Are trustors willing to share information about their interaction partners in repeated investment games?
How do direct and indirect information sharing costs (due to rivalry) affect the outcome of the games?

1. Motivation

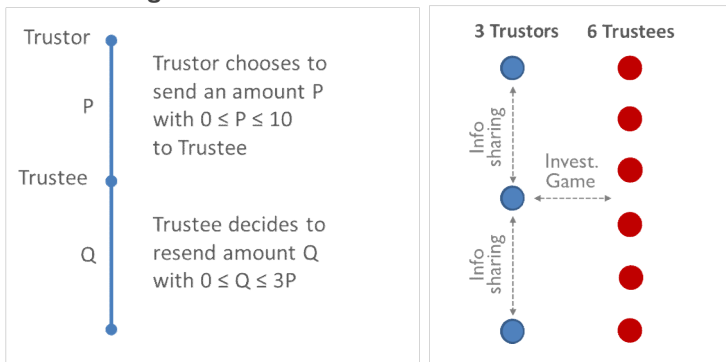
- Informational asymmetries and moral hazard may negatively affect trust and efficiency in sequential exchange situations, e.g. shipping of goods on Ebay [1] or credit markets [2]
- Reputation mechanisms**, i.e. public exchange of information, as effective mean to limit opportunistic behavior [3]
- In **previous research**: reputation mechanisms were exogenously imposed on players, i.e. information was passed automatically. Strong focus on effects on trustees (=second movers)
- Yet, even if socially beneficial, in many situations, sharing of information may not occur, e.g. if...
 - there are **direct costs** to info sharing
 - there are indirect costs, due to **competition/rivalry** among players

2. Contribution

- We study **endogenous info sharing** between trustors in a repeated laboratory investment game [4]
- We consider the effects of **direct and indirect costs** of transfers on the willingness to share info
- Focus not only on trustors' behavior, but also on trustees' reactions to institutional changes
- Effects on trust, trustworthiness, and overall market efficiency

3. Experimental Setting

Investment game and market structure



Procedures

- Random matching, 3 trustees not assigned to trustors. Game repeated for at least 24 rounds
- Experiments conducted at the Vienna Center for Experimental Economics from June 2015 – February 2016, z-Tree used for programming [5]. In total 7 sessions, 20 group, 180 participants

4. Treatments and Predictions

- Info sharing**: In each period trustors can send info about interaction, i.e. P and Q , to other trustors. Info displayed in history table
- Competition/Rivalry** (indirect costs): Tournament mechanism, i.e. trustor's payoffs depends on performance of other trustors. Additional payoff of 10€ and 5€ every 8th round for 1st and 2nd ranked trustor
- Info sharing & competition**: Combination of both treatments
- Within treatment: **Direct costs** of info sharing were randomly varied each round from 0-1

Predictions

The possibility to share info positively affects trust and trustworthiness
Costs reduce info sharing and negatively affect the game outcome

5. Results

Descriptives

- High willingness to trust ($\bar{P} = 7.76$)
- Focal point for resending: $Q = 1.5 \times P$
- Information was shared in about 30% of all cases

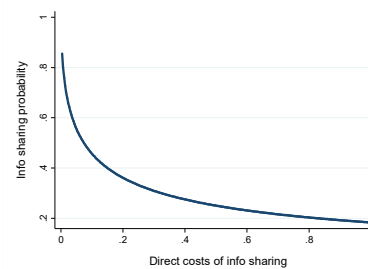
Willingness to share info by treatment

	Logit Information Sharing		
Competition	-0.251*** [0.062]	-0.235*** [0.060]	-0.241*** [0.046]
Direct costs		-0.330** [0.114]	
Log direct costs			-0.061*** [0.009]
Pseudo R ²	0.442	0.486	0.505

Notes: N = 720, coefficients displayed as marginal probability changes at the mean of all covariates. Standard errors clustered. + p<0.1, * p<0.05, ** p<0.01, *** p<0.001

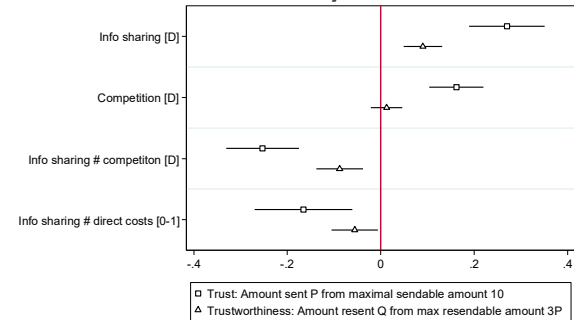
- Both direct and indirect costs lead to significant reduction in info sharing
- With competition: About 24% reduction

The role of direct costs of info sharing



- Non-linear effects of direct costs
- Logarithmic function shows best fit
- Already a small direct cost strongly reduces info sharing

Trust and trustworthiness by treatment



- Info sharing significantly increases trust and trustworthiness
- Competition makes trustors send higher amounts, no effect on trustees
- Direct and indirect costs reduce trust and trustworthiness through reduced info sharing activities

6. Conclusion

- With no costs, trustors willing to share info leading to a significant reduction in opportunistic behavior (\rightarrow reputation building)
- Direct and indirect costs strongly influence willingness to share info and the overall outcome of the game
- Strong anticipation by trustees**: Costs influence beliefs
- (Positive and negative) **Reciprocity** in trustor-trustor and trustor-trustee relationships is found to be a key motivator for info sharing

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