Game Theoretic and Experimental Investigations of Institutions

Project Leader
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1. Objective

This project is aimed at:

Game theory has been used for years in several disciplines of social sciences to understand the driving-force of phenomena and cope with social conflict. Based on a rational choice framework under a strategic situation, game theory presents a powerful tool to analyze economic, political, or organizational institutions. The aim of this research is to apply the game theory to model human behavior in a society, employee behavior in an organization or firm behavior in a market and test the implications of the theory by means of laboratory experiment.

2. Project Outline

To that end, the project will consist of the following phases:

(a) Building a model for a specific problem and analyzing it based on game theory;
(b) Experimental verification of the implications of (a)

3. Expected Performance

In this project, the successful candidate would be expected to:

(a) Carry out research;
(b) Assist the senior members with determining which model to use for a specific problem and solving it by game theory
(c) Supervise experiments; and
(d) Perform routine work in terms of designing experiments.

4. Required Skills and Knowledge

The successful candidates for this project will have the following knowledge and skills:

(a) masters level in economics including microeconomics, econometrics, statistics and mathematics;
(b) basic game theory; and
(c) basic experimental and/or behavioral economics.

References

(1) Kamijo, Tomaru, "The endogenous objective function of a partially-privatized firm: a nash bargaining approach," Economic Modelling 39, April 2014, Pages 101-109.

(2) Kamijo, Nihonsugi, Takeuchi, Funaki, "Sustaining cooperation in social dilemma: Comparison of centralized punishment institutions," Games and Economic Behavior 84, March 2014, Pages 180-195.

(3) Kamijo, Kongo, "Properties based on relative contributions for cooperative games with transferable utilities," Theory and Decision, November 2013.

(4) Kamijo, "Bidding behavior for a keyword auction in a sealed bid environment," Decision Support Systems 56, December 2013, Pages 371-378.

(5) Fukuda, Kamijo, Takeuchi, Masui, Funaki, "Theoretical and experimental investigation of performance of keyword auction mechanisms," RAND journal of Economics 44(3), Fall 2013, Pages 438-461.

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