

Game Theoretic and Experimental Investigations of Institutions

Project Leader

KAMIJO Yoshio, Ph.D.

Associate Professor, Economics and Management

Research Center for Social Design Engineering

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.

See our admission guidelines:

https://www.kochi-tech.ac.jp/english/admission/ssp_aft19oct/ssp_application_guideline.html

Contact

E-mail: kamijo.yoshio@kochi-tech.ac.jp