

# ETH21-6748 Optimal contest design

## Description

Prize structures substantially affect the performance of contests. While negative prizes are common in real life contests, they are often utilized in a wrong way and contestants are discouraged to participate. The aim of this project is to demonstrate an effective means of using negative prizes to both stimulate competition and attract participation, taking into account that contestants are risk averse and their efforts cannot be observed. Lab experiments will be used to test the theoretical innovation in practice.

Expand/Collapse all

## - Project

### Project overview

#### Project name

ETH21-6748 Optimal contest design

#### Research Master Project Code / Student ID

N.A.

☐ HDR student project

#### Project description

Prize structures substantially affect the performance of contests. While negative prizes are common in real life contests, they are often utilized in a wrong way and contestants are discouraged to participate. The aim of this project is to demonstrate an effective means of using negative prizes to both stimulate competition and attract participation, taking into account that contestants are risk averse and their efforts cannot be observed. Lab experiments will be used to test the theoretical innovation in practice.

#### Keywords

economics experiment, optimal contest

#### Start date

29/11/2021

#### End date

30/06/2022

#### Funders

#### Grant ID

## People

### First-named chief investigator / UTS supervisor

Name	Email	Project Role	ORCID
Jingjing Zhang	Jingjing.Zhang@uts.edu.au	Chief Investigator	

### Data manager

Name	Email	ORCID
Jingjing Zhang	jingjing.zhang@uts.edu.au	

### Contributors

Name	Email	ORCID
Jun Zhang	Jun.Zhang@uts.edu.au	

### Additional supervisors

Name	Email	ORCID
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## - Ethics and security

## Ethics and Security

Initially your research data is classified as UTS Internal. To improve the accuracy of this classification, please answer the following

### Information Security Classification

UTS: Confidential

### Does the research involve:

Human participant data

### Will the data you collect from individuals include personal information?

Yes

### Will the data you collect from individuals include sensitive personal information other than health information?

No

### Will the data you collect from individuals include health information?

No

### Will any data or information be individually identifiable or potentially re-identifiable (i.e. include codes) at any stage of the research?

No

### Is Ethics approval required for your project?

Yes

## Data collection and storage

### Please provide a brief description of your data collection methodology

We will recruit undergraduate students from Nanjing Audit University to participate in an interactive laboratory experiment. All interactions will be through computer terminals.

In the beginning of an experimental session, 24 subjects will be randomly grouped into 8 contests of 3 players and remain in the same group for 30 periods. In each period, each player compete against each other in the group in a bidding contest to win a prize. The value of the prize depends on how many players choose to participate and the submitted bids. There will be 30 real periods plus 3 practice periods in each treatment. At the end of the experiment, we will randomly draw five out of 30 periods to pay for subjects' performance. We will also measure subjects' risk preference, loss aversion, and use cognitive reflection test for impulsivity.

### Predominant file type(s), e.g. textual, tabular, image or recording. Give file format if known

The experiment is programmed in zTree - a widely used software package for developing and carrying out economic experiments. All decisions will be submitted via computer terminals. Decisions are numerical representing bid amount. Submitted bids will be stored in CSV.

### Data storage location

Other (please specify)

### If other, provide further details: (Including access arrangements for the minimum retention period)

The data will be stored on UTS and Nanjing Audit University servers with only access to the UTS and Nanjing Audit University researchers from the team. The results will be aggregated and will not be identifiable individually when the results are published

## - Data retention and disposal

## Data retention and disposal

### Minimum retention period

5 years (general research)

### The data steward is:

Jingjing Zhang

### Have you made commitments to destroy part of the data prior to end of retention period (e.g original recordings, linking/code files)?

No

### When should it be destroyed?

01/01/2030

## Access and rights

### Copyright and intellectual property owners of data created in project

University of Technology Sydney jointly with... (enter other owners below)

#### Please list any other owners:

Nanjing Audit University

#### Access after the project will be

Mediated, by permission from the data manager

#### Are you using any secondary or third-party data?

No

#### Licences or Agreements:

## Research Workspace

### Associated workspaces

Name	Description	Location	Type