Group Assignment

Microeconomics

Bachelor in Business Administration

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12 am (midnight) CET

Instructions

For this group assignment, you are going to (1) analyse the experimental data, from the classroom experiments done during this course, using the software STATA, and (2) write a 1000 words essay about it.
You are required to upload to Luiss Learn one do file, containing all the analysis done, and one .pdf file, containing the essay, per group. Remember you have to write the name, surname, and student ID numbers of each student in the group and the group number.

Game-specific tasks

You are free and encouraged to include in your short essay how many tests and graphs you might consider relevant for the discussion. However, there are some tasks you must fulfill as basic requirements.

Trust Game

1. A t-test to check whether one of the two main variables (`amountsent` and `amountback`) can be predicted by the Nash equilibrium.

2. A t-test to check whether one of the two main variables differs across one of the individual characteristics (i.e. gender, country of origin, CRT test score).

3. A bar graph representing one of the two main variables across one of the individual characteristics.

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Prisoner Dilemma

1. A t-test to check whether the main variable (`cooperate`) can be predicted by the Nash equilibrium.
2. The correlation between the main variable and one of the individual characteristics (i.e. age, gender, country of origin, CRT test score).
3. A bar graph representing the main variables across one of the individual characteristics.

Public Good Game

1. A t-test to check whether the main variable (`participant_contribution`) can be predicted by the Nash equilibrium.
2. The correlation between the main variable and one of the individual characteristics (i.e. age, gender, country of origin, CRT test score).
3. A bar graph representing the main variables across one of the individual characteristics.

Bertrand Duopoly

1. A series of t-tests to check whether the main variable (`participant_price_i, i=1,2,3`) is equal across rounds.
2. A bar graph representing the main variables across rounds.

Cournot Duopoly

1. A series of t-tests to check whether the main variable (`participant_units_i, i=1,2,3`) is equal across rounds.
2. A bar graph representing the main variables across rounds.

Variables guide

Common variables

`age`: individual's age in years

`gender`: individual's gender

`country`: individual's country of origin

`crt_bat`: CRT first answer

`crt_widget`: CRT second answer

`crt_lake`: CRT third answer

`r_bat`: dummy[1] variable, 1 if the first CRT answer is correct

`r_widget`: dummy variable, 1 if the second CRT answer is correct

`r_lake`: dummy variable, 1 if the third CRT answer is correct

`CRT`: dummy variable, 1 if all CRT answers are correct

`female`: dummy variable, 1 if the individual is female

`italian`: dummy variable, 1 if the individual is Italian

Trust Game

`role`: individual's role in the game, 1 if first mover, 2 if second mover

`participant_payoff`: individual's final payoff

`group`: group in which the individual plays

`amountsent`: first mover's amount sent

`amountback`: second mover's amount sent back

Prisoner Dilemma

`participant_payoff`: individual's final payoff

`cooperate`: dummy variable, 1 if the individual chooses to cooperate

`group`: group in which the individual plays

[1] A *dummy* variable is a variable only taking values 0 or 1.

Public Good Game

participant_payoff: individual's final payoff

participant_contribution: amount contributed to the public good by the individual

group: group in which the individual plays

total_contribution: total amount contributed to the public group in that group

individual_share: individual share received after the redistridution of the public good

Bertrand Duopoly

participant_payoff: individual's final payoff

participant_payoff_1, participant_payoff_2, participant_payoff_3: individual's payoff in round 1, 2, 3

participant_price_1, participant_price_2, participant_price_3: price chosen by the individual in round 1, 2, 3

winner_1, winner_2, winner_3: dummy varibale, 1 if the individual's price won (was the lower) in round 1, 2, 3

group_1, group_2, group_3: group in which the individual plays in round 1, 2, 3

winning_price_1, winning_price_2, winning_price_3: winning (lower) price in round 1, 2, 3

Cournot Duopoly

participant_payoff: individual's final payoff

participant_payoff_1, participant_payoff_2, participant_payoff_3: individual's payoff in round 1, 2, 3

participant_units_1, participant_units_2, participant_units_3: quantity chosen by the individual in round 1, 2, 3

group_1, group_2, group_3: group in which the individual plays in round 1, 2, 3

price_1, price_2, price_3: resulting price in the group in round 1, 2, 3

tot_units_1, tot_units_2, tot_units_3: total quantity produced in the group in round 1, 2, 3