Programming Project Report

Topic: Credit Worthiness Assessment Experiment (Ultimatum Game)

Submitted by:

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In the project, we have created the code that depicts how much reliable a particular person can be in terms of returning back the borrowed money. This oTree experiment is designed to assess participants' credit worthiness based on various personal and financial factors. Participants make decisions regarding the amount of money they want to give, and then provide information about their age group, health insurance, dues payment history, marital status, family members, total assets, other income sources, and payment history. A credit score is calculated based on these inputs, and the experiment concludes with participants receiving payoffs.

Variables and Formula used for Credit Score calculation:

1) Payment History: If a participant has a good payment history/previous credit owed, 50 points are added.

2) Age Group: Points are added or subtracted based on age groups-

   18-30: +20 points; 31-45: No change; 46-60: -10 points, 61+: -20 points

3)Health Insurance: If a participant has health insurance, 30 points are added.

4) Dues Payment: If dues are not paid on time, 20 points are subtracted.

5) Marital Status: Points are adjusted based on marital status-

Married: +10 points; Divorced or Widowed: -10 points

6) Family Members: Points are subtracted based on the number of family members- Each family member (beyond the first one) results in a deduction of 5 points.

7) Total Assets: Points are added based on total assets- For every $10,000 in total assets, 1 point is added.

8) Other Income Sources: If a participant has other sources of income, 15 points are added. The calculated credit score is constrained between 300 and 850.

Instructions for Participants:

1) Welcome: Introduction to the experiment.

2) Instructions: Detailed instructions on how to proceed in the experiment.

3) Decision: Participants decide on the amount of money they want to give.

4) Response: Participants provide personal and financial information.

5) Results Wait Page: Participants wait for all players in the group to complete their decisions and responses.

6) Results: Participants view their results and payoffs.

Result:

The Results Page is where participants can view their outcomes and payoffs based on their decisions and provided information. The key components presented on this page include-

1) Credit Score: Participants' calculated credit scores based on the provided personal and financial data.

2) Given Amount: The amount of money participants chose to give in the experiment.

3) Payoff Calculation: Payoffs are calculated as a combination of the initial budget, credit score divided by 10, and the given amount.

This project is executed in order to address the debt traps and vicious circle of credit, that a significant percentage of population faces, depending on their respective payment history, current earning, accumulated wealth etc.