

Coordination game: minimum effort research proposal samples

[Business](#), [Decision Making](#)



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Literature Review

In some instances, the performance of the entire group is dependent on the effort that the weakest member of the group gives. For instance, the slowest member in a production line determines the speed at which the production line operates. In a coordination game where players simultaneously carry out a certain action, the payoff of the players is dependent on the effort of the said player and the smallest effort level of any of the players in the group. Coordination games are important to microeconomists. The belief is that economic growth can be impeded by low output equilibrium. Problems in coordination can be resolved through markets in a particular context, the only impediment being that market signals are not available at all times (Plott & Smith, 2008).

For instance, in order for a production team to achieve a high output, the members of the production team are required to put in high efforts of work. However, an individual might decide shirk while the others work. The minimum effort coordination game depends on the ability of the members to compliment each others ability level. Common efforts of the players result in

a Nash equilibrium. If the involvement of the players is not rectified, Nash equilibrium offers a degree of predictive power. Such predictive power doubles as market signals that can be used as solutions to coordination problems.

In the academic research carried out by Van Huyck et al. (1990), the scholar tested the effect of different treatments in the number of periods in a game, individual payoff and the feedback information regarding the group. The research showed that low effort levels were a common outcome in coordination games. This research was important because it introduced mechanisms that helped overcome coordination failures. The research also inspired other scholars who developed mechanisms to overcome failures. For instance, Blume and Ortomann (2007), introduces the costless signaling mechanism for minimum effort coordination games.

Experiment on Minimum Effort Coordination Game

The importance of gender in decision making is something that is of interest to virtually all entities. Minimum effort coordination games are vital in identifying the dynamics involved in such situations, especially when the individuals involved in the game are divided between the two genders. This experiment on the minimum effort coordination game is intended to establish how gender affects decision making in a minimum effort coordination game. The team taking part in the experiment will comprise of men and women, preferably graduates from college. This is important in order to bring the gender dynamics into the experiment.

The preference for graduates is grounded on the need for competitive

behavior in the group based on education. In order to bring about the aspect of decision making, the experiment will bring out competition within the participants by offering a bonus to the team that puts the highest effort and as such has the highest performance. As such, the experiment will investigate how men and women make decisions, especially when monetary incentives are applied. The experiment will also determine how men and women interact and how this affect decision making under different conditions.

For the purposes of this experiment, the different incentive contracts that will be used will be team and tournament environments. The payoff matrix used by Van Huyck et a. (1990) will be explained to the participants as it will be used in the experiment. In order to enhance the understanding of the participants, different mock scenarios will be drawn randomly prior to the experiment and used to illustrate the use of the payoff matrix. The participants will be allowed to develop their payoffs amongst themselves.

Treaments and Control Variables

The third treatment will be A4 which will comprise of twenty teams made up of ten female teams, each with six members and ten male teams each with six members. These teams will compete against one another. The final treatment will be A5 and will comprise of competition between teams that are mixed in their composition. This means that the teams will reconstitute to twenty teams, each comprising of six members, with an equal divide among the two genders. The assistants are encouraged to maintain the highest level of consistency when reading the instructions to the children so

as to not misguide any of the participants thereby influencing the outcome of the experiment.

References

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