Title:
The Effects of Evaluator Type and Incentive Structure on Creativity

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Status:
In Development

Abstract:
Managers often try to encourage their employees to generate and share creative ideas as to how to increase firm performance. Soliciting creative ideas can be difficult for a number of reasons discussed in the literature. Some research suggests that subordinates may be reluctant to convey certain types of creative ideas to their superiors, for fear of scrutiny. In addition, there is mixed evidence as to whether incentives drive or curb creativity. If incentives can be used to successfully solicit creative ideas, an open question is how the risk structure of such incentives affects a worker's likelihood to generate and share their ideas. We will conduct a field experiment among online labor market participants to determine how the type of evaluator and proposed incentive structures affect the creativity of ideas shared by employees.

Intervention Start Date & End Date:
Week of July 13th 2020 to the Week of July 20th, 2020

Primary Outcomes (end points):
The number of ideas generated by participants. The average and variance of the novelty and usefulness of each idea. The overall creativity of each idea. Overall participation rates.

Primary Outcomes (explanation):
Examining the number of ideas generated will provide us with an initial proxy of the level of creative effort exerted by participants. The scholarship on creativity defines an idea as creative if it is both novel and useful. The novelty and usefulness of an idea are subjective by nature. The research team and M'turkers may have different assessments of the novelty and usefulness of a given idea. The novelty and usefulness (i.e., the creativity) of each idea will be judged by the research team and M'turkers. Finally, while every M'turker will be encouraged to share their ideas, some may choose not to. The decision to or not to participate may be driven by the exogenously varied parameters of the experiment, so participation rates will be a useful dependent variable in our analysis.

Secondary Outcomes (end points):
Survey responses that capture employees' connectedness, creativity, and risk-aversion.

Secondary Outcomes (explanation):
Self-reported measures of connectedness, creativity, and risk aversion are hypothesized to be forward looking measures of productivity, retention, and willingness to participate in contests.

Experimental Design:
M'turk participants (who have already been identified in a pre-screen survey that solicited their willingness to participate in a contest) will be asked to complete a single survey that will enter each of them into a contest. The contest will prompt participants to share their most creative idea

for an attention check that can be used to keep participants engaged in future M'turk surveys. The ideas will be evaluated based on their creativity, which has two parts, novelty and usefulness. The parameters of the contests will vary in two ways: (1) who the evaluators of the ideas are and (2) the incentive structure for sharing ideas.

Participants will be told that they will be competing against approximately 200 others. They will be told that their ideas will be evaluated either by a panel of M'turk HIT requesters or by a panel of fellow M'turkers (their peers). In some treatment arms, the participant with the most creative idea will receive a $50 prize. In other treatment arms, the ten participants with the ten most creative ideas will each receive $5 prizes. After being told the parameters (who their evaluators will be and whether they are competing for one $50 prize or ten $5 prizes), participants will be prompted to share their creative idea. Participants will be allowed to submit multiple ideas by taking the survey multiple times.

All submitted ideas will be evaluated by a panel of M'turkers and the research team. The evaluators will use a pre-defined scale (e.g., 0-100) to judge the novelty, usefulness, and overall creativity of each idea. The ideas with the highest creativity score will win each contest, and the prizes will be awarded to the winners. Individual participants will be randomized into treatment cells, as they will each be treated as independent participants.

Randomization Unit:
Individual participant

Is the Treatment Clustered:
No

Planned Number of Observations:
400-800 Ideas

Sample Size by Treatment Arms:
Each treatment arm will have approximately 200 participants.

IRB Name; Approval Date; Approval Number:
Tulane University IRB; 05/17/2020; IRB 2020-011

Analysis Plan:
We will estimate the effects of evaluator type and incentive structure on multiple dependent variables, *Y*: participation rates, the number of ideas shared, and the average and variance of idea novelty/usefulness/creativity. The overall treatment effect of evaluator type (being evaluated by a panel of executives, relative to a panel of peers) is:

$$\beta_{Exec} = mean(Y_{Exec}) - mean(Y_{Peer}).$$

We will estimate this mean difference using a regression of *Y* on an indicator for being evaluated by executives. Similarly, the overall treatment effect of incentive type (competing for one large prize, relative to ten smaller prizes) is:

$$\beta_{Large} = mean\big(Y_{Large}\big) - mean(Y_{Small}).$$