Potential Pitfalls of On-line Platforms

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Background

1. My bias:
   – vast majority of my audit research involves practitioners in controlled experiments

2. My emphasis here is audit JDM research but my concern about a potential lack of control relates to all areas

3. JDM audit research faces some difficult issues:
   – topics studied are dictated by data availability e.g. KAMs/CAMs
   – participants are even harder to get
   – some migration of researchers to other areas due to ease of data collection

4. Huge variation in on-line platforms:
   – e.g. Mturk to on-line platform with University alumni categorized by degree/graduate year
Two Separate Issues Related to Present On-line Platforms

1. Experience/knowledge of participants
   - Do we need experienced participants?
   (see Libby, Bloomfield and Nelson 2002; Peecher and Solomon 2001)

2. Potential issues of experimental control
   - Less knowledge about participants
   - Additional information may be consulted
   - Working independently?
   - Dropout rate
   - Control of extraneous variables (e.g. multi-tasking)
Therefore Researchers Should Ask Themselves

- Are experienced professionals required?
  - If yes, what on-line platforms provide these participants and provide adequate experimental control
  - If no, consider the advantages / disadvantages of using controlled experiments with students versus on-line platforms
## Comparisons between Alternatives

<table>
<thead>
<tr>
<th></th>
<th>Controlled</th>
<th>Mail</th>
<th>Qualtrics / Website</th>
<th>Mturk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher knowledge of participants</td>
<td>Very High</td>
<td>Generally High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Time spent known</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>?</td>
</tr>
<tr>
<td>Work independently</td>
<td>Yes</td>
<td>Likely</td>
<td>Likely</td>
<td>?</td>
</tr>
<tr>
<td>Multi-tasking</td>
<td>No</td>
<td>?</td>
<td>?</td>
<td>Likely</td>
</tr>
<tr>
<td>Dropout rate</td>
<td>Very Low</td>
<td>Low ?</td>
<td>Very Low</td>
<td>High</td>
</tr>
<tr>
<td>Contamination</td>
<td>Very Low</td>
<td>Very Low</td>
<td>Very Low</td>
<td>Very High</td>
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In a small apartment in a small town in northeastern Mississippi, Sarah Marshall sits at her computer, clicking bubbles for an online survey, as her 1-year-old son plays nearby. She hasn’t done this exact survey before, but the questions are familiar, and she works fast. That’s because Marshall is what you might call a professional survey-taker. In the past five years, she has completed roughly 20,000 academic surveys. This is her 21st so far this week. And it’s only Tuesday.

(Source: ‘The Internet’s hidden science factory’, J Marder and M Fritz 2015)

Potential solutions: attention checks; manipulation checks
Some Potential Problems with Mturk and Similar Approaches

- Do we really know who is completing the study?
- Are the participants contaminated by previous studies?
- Is there less care in the design, i.e. penalties for re-running an experiment are less?
- What is pilot testing and how many pilot experiments are run before the final experiment?
- Manipulation check failures?
- Much of the audit JDM research is motivated around benefits for auditors and the PCAOB. Will it have an impact?
Some trends I don’t like:

- a growing belief that getting experts is impossible
- access to easy participants is driving the research agenda away from audit processes
- we are seeing a greater number of perfect experiments and possibly expectations of perfect experiments
Publication Perspective

- Space in the top journals is limited and there is a lot of competition

- What is the comparative advantage of your paper over other papers:
  - interesting issue
  - choice of variables examined
  - strong design
  - appropriate participants
  - interesting result
The right on-line platforms have great promise for:
- multi incremental experiments
- opportunity to both address task effects and multi-period effects

Considerable thought needs to go into developing experimental controls to convince others of the benefits

Hopefully, we can move forward with some of the new innovative platforms suggested by the other panelists