#### Part 1: Tender Preference Simulation Experiment

### Objective:

The study aims to understand the importance of a key barrier to Public procurement, the firm's perception of Public Procurement as a rigged system, driven by bureaucratic corruption and personal connections.

To materialize this, in this experiment we elicit firm preferences and interest in specific Public Procurement Opportunities released by Public entities that they have prior opinions about. Specifically, we present each firm with a set of hypothetical tender notices for contracts in their sector, where key tender characteristics are randomized, including the name of the public entity offering the contract, the value of the contract, the subject of the contract, location and the administrative burden required to bid. Tender notices are completely realistic, and they are based on the same format used by public entities to advertise tenders in newspapers (see Appendix).

Although the firms are informed that the tenders that they select are hypothetical, they are still incentivized to reveal their correct preferences because we are able to offer them a customized biweekly newsletter based on their preferences in the experiment. Additionally, we are going to provide a cash reward for their participation in the experiment. The incentivization strategy and preference elicitation are based on the incentivized resume rating paradigm in Kessler, Low and Sullivan (Kessler, Low, and Sullivan 2019).

#### **Definitions:**

- **Sector:** The nature of business that a tender/ firm is active in. This includes categories like building and construction, Catering & Events, Consultancy, Research and Education. The complete list of sectors will be attached to the end of this document as an appendix.
- **Tender Activity/Subject:** The actual services, goods or activity sought by the tender, e.g. Procurement of stationary, Construction of School etc.
- **Subject Category:** The category of subject that a tender activity belongs to, this is an intermediate level of disaggregation between a subject and a sector where certain subjects are grouped together. This shall be used for eliciting preferences of tender subjects during mobilization. Eg of a subject category: 'Completion, rehabilitation and fencing of buildings and compounds', 'Renting of store, hall, house, dining spaces, facilities, markets and toilet'.
- PDE: Public Entity, classified into 'local' which have a regional mandate for e.g.- Gulu DLG<sup>1</sup> or National which have nationwide mandates e.g.- Uganda National Road Authority, Uganda Wildlife Authority.
  - Non-Public Entities: As a control in the experiment we shall also be showing firms a set of tenders that were released not by the government but by private entities and International and National NGOs.
- Level of Detail/Tender Templates: We use 32 Tender templates<sup>2</sup> based on the level of detail in the tender. The level of detail is determined by the presence or absence of the following variables
  - Bid Document price
  - Bid Security Amount
  - Presence of Prebid Meeting: This variable is connected to the presence/absence of the prebid meeting date.

<sup>&</sup>lt;sup>1</sup> District Local Government

<sup>&</sup>lt;sup>2</sup> The NGO tenders may have different templates that might be needed to the experiment.

#### Procurement Method

There are 16 possible combinations of these variables and each of them have two templates which have been created based on pre-existing tenders which have appeared in Newspapers/Online.

- Location: Location of the contract.
- **Deadlines/Dates:** Bid Deadline Date, Prebid Meeting Date, Best Evaluation Bidder Notice Date and Contract signing Date.

## **Tender Specification:**

To create random tenders for the experiment we draw from random distributions of variables we derive from a database of digitized tender contracts from the previous year from June 2019 to January 2020. However, for our experiment it is important that the tenders shown to the firms are realistic, relevant and interesting. To achieve this, we apply restrictions on the distributions based on the conditions we describe below.

<u>Relevance Criteria</u>: Since we are using the tenders to elicit firm preferences about public entities, tenders are only relevant when they are from public entities that they have prior information about. Firms will be shown tenders from entities that they have chosen, and 2(subject to change) randomly selected public entities. Further, 3 will be shown from non-government (private and NGO) sources. If a firm is unable to select a critical minimum number of public entities(CR)<sup>3</sup>, then the remaining entities will be selected for them based on the following rule.

If X is the number of public entities chosen and CR is the critical minimum number of entities. Then the (CR-X) PDEs will be selected equally from local and central entities. The local PDEs will be selected from the regions that the firm operates in. The central PDEs will be selected from the set of public entities that have published tenders in the sectors that the firm has worked in. The rationale behind this comes from the fact that local government public entities typically have a universal sectoral mandate (deal with all kinds of contracts) but a strict local mandate (restricted to regions), while central entities typically have a nation-wide location mandate with a narrower sector of operation.

Eg- Gulu DLG can release a contract for road construction, school building, revenue management services, or agricultural procurement but will be able to offer contracts only in its region. A national entity like UNRA can offer contracts throughout the country but the subject of the contract will be more restricted, with majority being about road construction.

<u>Interesting</u>: Firms usually have a sector of operation and typically would only want to see tenders that are from the sector that they work in<sup>4</sup>. For example, a company working in building and construction will only be interested in tenders from the construction industry and may not be interested in furniture. We therefore show firms tenders with subject categories that have appeared in the sectors that they claim to work in (For a description of sectors of operation see Appendix 2). However, this does not completely solve the issue because despite being in the same sector, a firm may not be engaged in the same type of activity demanded in the tender. Eg- 'The design of custom software' and the 'procurement of printer cartridges' may both belong to the sector 'IT' but a business working in one may not be working in the other. To do this we create two more checks.

<sup>&</sup>lt;sup>3</sup> The critical minimum number of public entities at this point has been assumed to be 10.

<sup>&</sup>lt;sup>4</sup> This has been independently verified in a qualitative study conducted by the researchers.

- (i) In the mobilization survey, we elicit *subject categories* that the firm does not work in<sup>5</sup> and ensure that tenders from those subject categories are not shown.
- (ii) In the final experiment, we show firms multiple tenders from each PDE that they have chosen and give them the option to reject several options before choosing the correct one.

<u>Realistic:</u> To elicit true preferences of the firm we want the tenders to be as realistic as possible. To ensure this make sure that the tenders visually look exactly like tenders that appear in the newspapers. Additionally, we apply the following filters and constraints.

- Location constraint for local PDE: Since Local entities have a mandate within their regions,
  their contract locations are fixed instead of being drawn from the complete distribution of
  locations. Gulu DLG is unlikely to release a tender in Mbarara or Kampala. National entities,
  on the other hand, will have a distribution of contract locations based on the distribution of
  locations of national contracts in our database.
- Homogenized Tender Subjects: The Tender subjects are 'homogenized' to remove details
  within it which may preclude it from appearing in other sectors or subjects. For instance,
  location details (Construction of a school in Gulu) or very specific requirements (construction
  of a cooling tower for a nuclear power plant) within the body are replaced with more generic
  counterpart.

**Contradictions:** Although the goal of the experiment is to provide a realistic simulation of tenders, we make sometimes some exceptions to reduce the cognitive load on the respondent. These include

- Highlighting key tender characteristics: Features of the tender that we are concerned about can appear shaded in colour, **in bold** or in *italics*.
- Flashing of important entity characteristics (like payment schedule and the presence of feedback) during the experiment process.
- Deadlines are displayed not as dates (as they do in the original tender) but in terms of distance. This is done so that firms do not have to calculate date differences during the experiment.

#### To Implement these decisions, we conduct the survey in two stages:

**Mobilization Survey:** In the mobilization survey the firm will be required to reveal up to 20 public entities that they have worked with or are interested to work with. The firms will also reveal a list of sectors that they are interested to work in or are already working in. Additionally, we will obtain economic, demographic and ownership details about the firm. We will also obtain a list of tender subjects (displayed based on the choice of sectors) that the firms are unlikely to work in.

**Final Survey:** Firms will be shown a maximum of 120-125 tenders from the public entities that they choose in mobilization (subject to the critical minimum condition described earlier), 2 random public entities, and 3 random NGO/private sector entities. The number of tenders shown per entity will depend on the number of firms chosen, with a hard cap on total number of tenders being kept constant to ensure that the survey is able to keep time. The above means that that the smaller the

<sup>&</sup>lt;sup>5</sup> The reason we elicit the reverse preference is because we think it will make it quicker in the phone survey.

number of entities selected by the firm, the large the number of tenders they will be rating per entity (i.e. more repetition of the same entity) since we keep the total number of tenders constant.

The maximum number of public entities will be 25, and the minimum will be 15 (given that the minimum number of experiment entities (CR) is 10). Firms will be required to rate at least 1 tender from each entity but will have the possibility to 'veto' or 'switch' a tender that is not to their liking and will be shown tenders till the limit of 120-125 is exhausted. Once they rate a tender from an entity they will not be shown any more tenders<sup>6</sup>.

#### Steps for the realization of the design:

#### Stage 1: Preparation

- Step 1: We depart from the database of digitized contracts<sup>7</sup>.
- Step 2: From the database we generate distributions of
  - Entities
  - Level of detail in the Tender
    - Presence / Absence of Bid-Document Price
    - Presence/ Absence of a Bid Security Amount
    - Presence/ Absence of Deadline Details: Prebid Meeting; BEB Notice and Contract Signing Date.
    - Presence/ Absence of a procurement method
  - Items in the Tender
    - **Bid Document Price**
    - Bid Security amount
    - Tender/contract Location
  - Randomly Generated Values:
    - Telephone Number)
    - Address (based on entity location)
  - Additionally, we produce sector-wise distributions of:
    - Subject categories and subjects
      - This involved the manual creation of 'homogenised-subjects' and 'subject categories'
- Step 3: We generate the mobilization form which elicits firm information and preferences of sectors, entities and subjects.

### **Stage 2: Mobilization Survey**

- In the mobilization form, we elicit preferences of entities and sectors and also record subject categories that the firms may not be interested in. These will be useful for the tender generation survey and also the Willingness to Pay Experiment.
- The following factors are ensured
  - o Firms are to ideally choose 20 PDEs but will not be forced to reveal more entities than they are able to remember
  - Firms choose sectors of interest and based on the choice of sectors they are shown a set of tender subject categories

<sup>&</sup>lt;sup>6</sup> This aspect may be mo

<sup>&</sup>lt;sup>7</sup> This file is called "tenders\_v8.xlsx" in our database

■ The enumerator then marks those subject categories which they believe are unreasonable after confirming with the firm<sup>8</sup>.

# **Stage 3: Preparation for Final Survey**

- Activity 1: Tender Generation (Discussed in detail below)
- Activity 2: Information Report Generation for Willingness to Pay.

# Stage 4: Main Survey

### **Part 1: Tender Simulation Experiment**

- The Tenders shown will have the Public Entities and subjects from sectors that were chosen during the mobilization.
- The Final Survey is implemented such that each firm must rate 1 tender from each of the entities.
- When a PDE rates a tender with a particular PDE, tenders belonging to that PDE are no-longer shown to them<sup>9</sup>.

# Part 2: Willingness to Pay Experiment (This is discussed in more detail in the next section)

- Explanation of the experiment:
  - Explanation of the information product
    - Presentation of the specimen report
  - o Explanation of Bidding Mechanism:
  - Payment schedule: We explain that they pay now (in the form of a discount for their incentive) and receive the report later
- Test Bid
- Real bid & (background)lottery for Information
- Successful firms have bid amount deducted from the total money (through a discount in incentive)
- A customized report is sent to them,

#### **Implementation Details of Tender Generation (Stage 3):**

## **Part 1: Creating Choice Universe**

Firstly, an intermediate database is populated with all combinations of entities and sectors
and for each such combination 5 subjects (tender activity) are randomly sampled for each
subject category that appears in a sector. Simplified database design is shared below.

Entity ID	Sector	Subject Category	Randomly sampled subjects
1121	Agri	1	5,2,3,4,1
1121	Agri	12	5,8,13,21,34
1120	Cons	3	11,121,1221,12321

<sup>&</sup>lt;sup>8</sup> This is done to reduce the length of the phone survey. There are 76 subject categories and some sectors have representation in 30 of them

<sup>&</sup>lt;sup>9</sup> This is to **reduce the length of the survey** and have consistent number of ratings by each firm.

• This means that we achieve a high amount of variability (a unique random sampling) for each recorded preference of (Entity, Sector and Subject Category).

## Part 2: Processing Preferences for Mobilization Survey

• At the end of the mobilization survey, we obtain the preference of entity, sector and subject category<sup>10</sup> for **each firm**. We then sample a set of 2 new random public entities that is disjoint from the set of entities that they have chosen and 3 more private/NGO entities. For each of these entities we randomly sample tenders based on the preference of sector and subject category. We, therefore, obtain something that looks like this for each firm for each entity:

Entity	Sector's Chosen	Viable	Subjects	Subject	Categories	Subjects
ID		Categories (F	or these	Chosen		
		sectors)				
1121	Agri, Cons	1,12,3,15,18,	19,20,30	1,12,3		12321,121,13,5,4

• These choices are then marked on the tender choice universe. Because of overlap in firm preferences, many of the combinations will be shared amongst firms. The unmarked combinations are dropped from the database and the marked combinations are exported and merged with variables that derive values from unrestricted<sup>11</sup> distributions drawn from the digitized database of tenders like bid document price, bid-security, prebid-meeting, location<sup>12</sup> and the presence or absence of a particular level of detail in the tender<sup>13</sup>. They are also merged with variables that are designed to make the tender more realistic like address, phone number. As discussed earlier, the level of detail determines which of the 32 templates are chosen for the tender.

## **Part 3: Generation of Tenders**

PDF images and tenders are finally generated for every entry in the database. Given that every
firm is shown 125 tenders and we have 1000 firms, the theoretical limit to the number of
tenders generated is 125,000. However, the actual number of tenders will be much lower
based on the level of overlap in firm preferences.

#### Part 4: Exporting Data for the Survey

- We then divide the tenders into groups based on firms and export the data into the enumerator tablets for the mobilization survey. Every firm will need 125 MBs of image space.
- The Survey CTO questionnaires that implement the tender rating and 'vetoing' system for a
  particular group of firms (based on the geographical location of the firms being interviewed)
  is uploaded to each enumerators tablet.

# **Script for Implementation:**

# **Script for Mobilization Survey for Tender Simulation Experiment:**

#### Select PDEs

<sup>10</sup> We obtain the subject categories that a firm does not work in and subtract it from the set of categories appearing in that sector.

<sup>&</sup>lt;sup>11</sup> These are unrestricted because they are not affected by the firms's preference.

<sup>&</sup>lt;sup>12</sup> Subject to the constraint mentioned earlier, i.e. only national entities' have randomly selected locations.

<sup>&</sup>lt;sup>13</sup> This refers to whether or not prebid meeting, bid document price etc are provided in the tender.

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#### Intro Message:

We are conducting a research project about public procurement in Uganda. It is conducted by the University of Chicago, in collaboration with BRAC Uganda. The objective of the study is to understand your perceptions about public procurement. Your participation will help us identify key challenges in Public Procurement in Uganda. Everything that you mention here is strictly confidential, and any research output we produce will not have any identifiable information. Feel free to reach out to us if you have any questions or if you want to understand the research in more detail.

### • \*Ask for firm ownership, financial and contact details( Borrowed from previous surveys)

- We would like to know a list of the public entities that you know and for which you have an opinion about the way they operate. You may have formed your opinions through media, conversations with other people or direct contact with the entity, among others. Please include both entities that you have worked with and entities with which you have not worked yet but on which you have an opinion. Note that we are interested in PUBLIC entities only. That is, that belong to the government of Uganda, such as ministries, authorities, public firms, local governments etc. This excludes NGOs or international organizations (for example UN, USAID, Oxfam etc.) and private companies, trusts etc.
- Please also select the sectors of operation from the list provided, that your firm currently does business in or would like to do business in the future.
- Which of these activities from the sectors that you have selected do you believe are not interesting to your business?

### **Script for Final Survey:**

- We would like to you to 'rate' or 'evaluate' the following hypothetical tenders on a score between '1' and '10' based on how likely it is that you would have actually bid for them if they were real tenders.
  - While the tenders shown are not real, your choices will be used to recommend to you tenders that will be a good fit for your firm.
  - Based on the information we collect from you from this experiment, we will be sending you a bi-weekly newsletter that will amalgamate all tenders published in Uganda, by all public entities in both print and online channels that will be relevant to your firm. Therefore, you have an incentive to mark your choices honestly and carefully to ensure that the tenders that we send to you are well suited to your firm.

If a tender has an activity that your business is not currently interested in, you have a choice to not rate that tender('to veto it'). In case this happens, you shall be shown other tenders in place of that tender. You will be required to rate at least 1 tender from each public entity that we have selected for you

In some cases, we will provide you with additional information about a Public Entity (such as
it's record on feedback and timely payments), you may choose to incorporate this information
when rating a tender.

# **Trial Experiment:**

- Before we proceed we can conduct a trial experiment.
- 'Now you are seeing a tender, you can see the important features of the tender have been highlighted on it'

- 'Does the subject of the tender align with your business?'
- Yes/No
- If No: Please select the 'Subject not interesting button, to move on'
- If Yes: 'How interested you would be in bidding for the tender on a scale between 1 and 10, if it were a real tender'
- Proceed to experiment:

# Part 2: Procedure for willingness-to-pay experiment

**Aim:** The aim of this experiment is twofold: first, obtain firms' willingness to pay (WTP) for information about public entities, specifically the results of procurement audits and other firms' perceptions of those entities; secondly, quantify how information affects the firm's participation in procurement with those specific public entities.

**Method:** In order to obtain firms' true valuation of information on public entities, we use a variant of Becker-DeGroot-Marshall mechanism. The basic procedure is the following: firms are asked to reveal how much they would pay for the information. A price, p, is then drawn at random. If firms' valuation is higher than p, then the firm buys the information at price p. If their bid is lower than p, then the firm cannot purchase the information. Not unlike a second-price bidding auction, this guarantees that the optimal strategy for subjects is to bid their true valuation of information.

Given the specific nature of our experiment, and because we wish to study the effect of information on the firms we make certain modifications to the experiment.

(i)We offer the information immediately to of respondents who win the bid with 50% probability. This is to ensure that the subsequent experiment is not biased by restricting the experiment only to those who have high WTP. However, to preserve incentive compatibility, and avoid deception. All the firms winning the bid will eventually be given the information but with a larger processing delay. To implement this, firms will be told an ambiguous statement like, 'You will receive the information document soon'.

(ii) We skew the distribution of price (p) to 0 to ensure that most firms win the bid

#### **Considerations:**

In order to ensure the quality of the data, it is necessary to take into account the following factors:

1. **Information that the firm has about the product:** In order to truly assess the benefit and so the value of the information, the firm must have enough information about what it is buying. This entails a clear understanding of the source of the information (*audit vs peer perception* 

- *report)*, the information available, the presentation of the information, and how much information it is buying with the stated price (whether it is buying information for all the entities that it specified). We believe
- 2. **Information about the mechanism:** Prior to bidding, the firm must have a clear understanding of the procedure and that its best option is to bid its true WTP.

**The Information Product:** We are considering two separate reports, (i) Well Organized Summary Report of the legacy audit reports from PPDA (Audit Summary Report). (ii) An Anonymous summary of the perceptions of the PDEs (Peer Perception Report). (iii) Audit summary report (verified by independent research organization).

Scope of the Information Product: Firms don't have an academic interest in Public Procurement. Unless an entity is one that they either already do business with or works in their sector they are unlikely to be interested in it. Therefore, the information that will be given to the firm should be restricted to sectors and/or public entities that the firm manifested interest in working with. The reports will be based on the sectors and entities that are chosen on the mobilization survey and will be prepared before the final survey. This approach guarantees the relevance of the information to the firm and so maximizes the probability that it will positively value the information.

#### **Preparation:**

Based on the preferences in the mobilization, customized reports will be made for each of the firms. The reports will be making use of graphs and creative visualizations of the information that is supposed to be conveyed.

#### The document is going to have a

- a. Ranking of PDEs that they had selected
- b. Ranking of the PDEs in the sectors and subject categories that they operate in.
- c. The analysis of each selected PDE.

## **Explaining the product:**

The experiment then moves on to the bidding mechanism. The surveyor informs the firm that it can purchase information about the entities it specified. This information comes from two different sources: audits and other firms' opinion about the public entity. The firm can purchase either one of the information or both and can choose to pay extra for the verified audit.

In order for the firm to give us its best willingness-to-pay estimate, it must be clear about what it is buying. As such, it may be optimal to offer an example of the information table by giving the firm one example from a sector or an entity it did not list. One table from an audit and another with information from other firms about the same public entity should be given to the firm so that it is clear about what information is sold. The firms also need to be told that they will receive information from the PDEs that they expressed an interest in during the mobilization survey conducted earlier.

#### **Explaining the mechanism**

In order to ensure the quality of the willingness-to-pay stated by firms, it is necessary that the firm understands the pricing mechanism and the conditions in which it will obtain the information. In theory, the optimal bid of the firm should be its willingness to pay. However, it is not clear that this is the case in practice. Several studies<sup>14</sup> have shown that the stated WTP differs when different

<sup>&</sup>lt;sup>14</sup> Rustram [1998], Shogren et al [2001], Noussair et al [2004]

incentive-compatible mechanisms are used. In order to reduce the probability that firms mistakenly state a price different than their true WTP, several factors need to be taken into account.

#### Clarity on One-shot bid:

Barry, Fischer and Gutieras, describe the importance of ensuring that the firms realize that the process is not a bargaining procedure and to avoid regret i.e. to insist on the dominant strategy. Given the context of Uganda, it is likely that such an assumption is the default among many of the firms. It is therefore crucial that it is explained to them that (i) The price is not set, yet they only have one shot at stating their preferred price before a random price is drawn. (ii) The random price determines whether the firm can buy the product. (iii) The firm cannot change its bid after the random draw is done.

To aid this, a practice round will be initiated. Here, firms are initially asked how much they would pay for this table. Firms are asked what would happen if the random price is equal to their bid + x UGS. The same question is asked when the random price is equal to their bid - x. In each case, the firm is also asked how much it would have to pay to access the information if that price is drawn. This ensures that the firm understands the procedure of obtaining the information and the price paid before the actual experiment.

### **Capturing of regret:**

In order to capture the possible "regrets" off firms, it is possible to ask them afterwards if they wish they had placed a higher bid. If yes, then we can capture the number of firms that have regrets and so for whom the bid is a lower bound on their WTP.

### Capturing of information about firms that did not wish to pay anything:

Some firms may have the assumption that information is free and not worth anything, or have different utilities that they derive from the 30 Dollar incentive we provide. We may wish to add a follow-up question about the nature of their bid, if it was low because (because do not trust audits, because have a big enough network that can rely on free information from other firms, because they required the incentive amount etc.)

# **Importance of Framing:**

Berry, Fischer and Gutieras suggest the importance of framing in achieving consistent responses in the experiment. Yang, et. al show that consumers are willing to pay substantially less for a risky prospect when it is called a "lottery," "raffle," "coin flip," or "gamble" vis a vis calling it a "voucher" etc (Yang, Vosgerau, and Loewenstein 2013). We need to be extremely careful in the way we describe the nature of the experiment.

We describe a draft script in the section that follows:

Information about the experiment

- We would like to sell you information about the public entities that you described an interest in the mobilization survey.
- The information you can buy is in the form of tables, containing information on specific public entities.
- There are two reports that you shall be receiving. One based on information from audits of the entities
- Another based on information from other firms like yours, that worked with this entity
- \*SHOW EXAMPLE\*-
- You can buy either one of those tables or both.
- You can also pay an extra amount to have the audit report verified by an external academic institution.
- The price is not yet fixed for those tables. It will be determined by chance in the experiment we are going to conduct.

- .

(We can also print this for the enumerators to carry with them and show to the respondents. It could include a graphical representation of the game.)

#### Information about the procedure of the game/experiment:

- I will ask you to tell me the maximum price you are willing to pay for the information tables
- A price (p) will then be drawn at random by a programme on the tablet
  - o If the number you pick is smaller than the price, you will not be able to buy the information report.
  - o If the number you pick is greater than or equal to the randomly drawn price, you will be able to buy the information report at the price (p). The report will then be delivered to you within a short period.
- You will only have one chance to place a bid, you cannot change your bid after the price is drawn at random.
- The price that you tell us will be **immediately deducted** from the total incentive of 30 USD that we have allocated to compensate your participation
- We will practice in a moment; but for now, do you have any questions?

# Answer any questions the respondent has.

# **Bidding procedure Explanation:**

- We will now play the game to by information from audits/ peer evaluators about the public entities you said you were interested in working with
- (1) What is the maximum amount you are willing to pay for this information? (=X)
  - O (2) Now, if the tablet randomly draws price(p) for the document that is less than or equal to X. You can buy the document at the price(p) drawn by the experiment. The amount will be deducted from the 30 USD incentive that you are receiving to participate in the experiment.
  - o If the tablet randomly draws a number that is greater than X, you will not be able to purchase the information, even if you are willing to pay the greater number later on.
- To be clear, under no circumstances, can you change your bid after the tablet draws a number. Do you understand?
- We will practice in a moment; but for now, do you have any questions?

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#### **Demo with SOAP**

#### Part 1: Elicitation of Willingness to Pay

- Let us practice the game, now. We'll play the same game, but instead of playing for the information document, we will play for this bar of soap.
  - \*Show Respondent A Bar of Soap\*

-----Restart Point-----

- Please tell me what is the maximum amount that you are willing to pay for this bar of soap? [Respondent states price X]
- Please, tell me if the tablet picks [X + 2 USD] Have you won the bid to keep the soap? *if the respondent does not give the correct answer, explain the rules again and then ask the question again?*
- And if the tablet picks [X 2 USD] now tell us, have you won the bid? What is the price you will pay? (if answered first correctly) If the respondent does not give the correct answer, explain the rules again and then ask the question again?
- If you draw [X+2 USD] as the price of the soap, will you want to purchase the soap for [X + 2 USD] instead of X

IF YES: GO TO NEXT QUESTIONIF NO: SKIP NEXT QUESTION

- Do you want to change your bid to [X + 2 USD]?
  - If NO: go to next question
  - o If YES: Ok, your new bid is [X + 2 USD] (restart at the restart point]
- So, is X truly the most you would want to pay?
  - o Yes: continue
  - NO: go back to restart point
- If you pick X, you are committing to pay any amount upto X as the price of the soap. Are you sure it is the maximum amount you wish to pay for the soap?
  - o IF YES: continue
  - If NO: what is the maximum price you are willing and able to pay now? Go back to Restart point using this value

#### Part 2 Price Generation and Expeirment:

Now the tablet will generate a random number (from a distribution skewed to 0) as price 'p'

# Read the price aloud. The price is noted as P

- [If P<=X]: the price is P, which is less than/equal to the amount you said you would be willing and able to pay for the soap. You can now receive the soap.
- [If P>X]: The Price is P, which is less than the amount you would be willing to pay for it. Unfortunately, you cannot receive the soap.

#### **Final Experiment:**

#### **Final Briefing:**

- We will now play the same game but for Information about Public Entities.

- Instead of Soap, you will be bidding for information about Public Entities in Public Procurement that we had briefly described earlier.
- The information is about Public Entities and sectors that you have described an interest in and may help your participation in Public Procurement.
- We have two sources of information on offer.
  - Audit Reports conducted by PPDA
  - Anonymous peer review of the Public Entities

#### - \* Proceed to show reports to the firm\*

- You will be making two separate bids for each source of information.
- For Audit Reports you have the option to bid for the reports to be reviewed by an independent academic organization.
- We will therefore be conducting three separate games with you (i) For the peer review information (ii) For the Audit Report (iii) For the external review
- Remember,
  - (i) The price is randomly drawn by the tablet before each experiment.

# (If unclear describe it like the process of throwing a dice)

- (ii)Whether you can buy the information is based on whether you bid higher or equal to the price drawn by the tablet
  - (iii) You cannot change the bid after the random draw is done.
- (iv) If you win the bid (i.e you bid higher than or equal to the price of the tablet) the randomly drawn price (Not the bid amount) will be deducted from the 30 dollars you are going to receive as a part of participating in our study.
- Do you have any questions before we proceed.

# **Experiment**

- Please tell me what is the maximum amount that you are willing to pay for this [Piece of Information<sup>15</sup>]?

#### [Respondent states price X]

- Are you sure that this is the maximum amount you would like to pay for the information, remember you will not be able to change this amount after the price is revealed.

## [Now the tablet will generate a random number (from a distribution skewed to 0) as price 'P']

- Read the price aloud. The price is noted as P
- [If P<=X]: the price is P, which is less than/equal to the amount you said you would be willing and able to pay for the information. You can now receive the information document
- [Now the tablet will generate 'win' or 'loss' 50 % probability in the background]
  - If the lottery is won:
    - Provide the report immediately.
  - If the lottery is lost
    - 'Thank you, you have won the bid for the information. Please give us a few weeks/months to prepare based on your preferences and send it to you'

<sup>&</sup>lt;sup>15</sup> This will be conducted

- [If P>X]: The price is P, which is more than the amount you said you would be willing and able to pay for the information. You cannot receive the document.

This script is repeated thrice for the three pieces of information, but the enumerator may choose to shorten the script for the later iterations if he has confidence the firm has a grasp of the methodology.

### **Additional Questions:**

- Descriptive questions on the bid
  - a. Why did you bid so low?
    - i. Because the information was not useful
      - 1. Why?
    - ii. Because the information should be free
    - iii. Because I believed this was the right price of the document.
    - iv. The Audits are not trusted worthy
      - 1. Did you not trust the independent source
    - v. I really need the money now.