Primary Data Collection
Methods: Survey Design

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ARTNeT Capacity Building Workshop on Trade Research
Bangkok, Thailand, 22-25 March 2005
Primary Data Collection

- Primary data collection is necessary when a researcher cannot find the data needed in secondary sources.
- In the area of trade research, primary data collection may often be necessary when looking at:
  - Effects of trade regulations, procedures, and other non-tariff barriers
  - Needs of specific groups / institutions / sub sectors
  - Linkages between trade and other issues
Primary Data Collection Methods

- **Observation**
  - Ex: go to a border crossing and observe/record how long it takes for each truck to cross.

- **Focus group**
  - Ex: bring 6-20 people from various stakeholder groups together to discuss needs and problems of a new trade regulation

- **Personal interviews (one-on-one)**
  - For collection of in-depth information

- **Telephone interviews/surveys**

- **Self-administered (mail or Internet) surveys**

Is there any (better) alternative to using a survey instrument?
5 Steps to Developing a Survey Instrument

- Clearly define objectives and research questions
- Develop methodology
  - Define sample (or population)
  - Data collection methods / survey protocol
  - Data analysis techniques
- Draft survey instrument (questionnaire)
  - Content → Formulate questions → Sequence questions → Format Questionnaire
- Pilot test survey instrument
- Revise survey instrument (as needed)
Example of Survey Protocol

- Day 0: Pre-notification letter sent by regular mail
- Day 5: Cover letter and survey instrument sent
- Day 15: Thank you / Reminder card sent
- Day 25: Survey instrument resent to non-respondent
- Day 35-45: Phone interview of remaining non-respondents

- Cover-letter signed by hand
- Stamped envelope with return address included with the survey (code each questionnaire and return envelope so you know from which respondent it comes from)
3 Do’s for Questionnaire Design

- Make it short (shorter is better)
  - For every question, ask yourself “How am I going to use this data?”

- Make it simple (Use simple wording + provide clear and concise instructions)

- Make it interesting (Consider varying the questioning format)

NEVER FORGET TO:

✓ Write down your study goals before drafting questions
✓ Formulate a plan for statistical analysis before drafting questions
## Formulating Questions

<table>
<thead>
<tr>
<th>Type of question...</th>
<th>Best Used for...</th>
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<tbody>
<tr>
<td><strong>Open-ended</strong></td>
<td>Breaking the ice in an interview; when respondents' own words are important; when the surveyor doesn't know all the possible answers.</td>
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<tr>
<td><strong>Closed-ended</strong></td>
<td>Collecting rank ordered data; when all response choices are known; when quantitative statistical results are desired.</td>
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<td><strong>Likert-scale</strong></td>
<td>To assess a person's feelings about something.</td>
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<td><strong>Multiple-choice</strong></td>
<td>When there are a finite number of options (remember to instruct respondents as to the number of answers to select).</td>
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<tr>
<td><strong>Ordinal</strong></td>
<td>To rate things in relation to other things.</td>
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<tr>
<td><strong>Categorical</strong></td>
<td>When the answers are categories, and each respondent must fall into exactly one of them.</td>
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<tr>
<td><strong>Numerical</strong></td>
<td>For real numbers, like age, number of months, etc.</td>
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Source: Encyclopedia of Educational Technology, Types of Survey Questions, by Heather Waddington
Formulating Questions

- Measure one thing at a time
  - Ex: do you think the recent accession of your country to the WTO will enhance your export and joint-venture opportunities?

- Avoid leading questions or assumptions
  - Ex: what action did you take the last time a Customs officer asked you for a bribe?
Formulating Questions

- Ensure that your question can accommodate all possible answers
  - Ex: From which country do you import your wheat?
    a. USA  b. Australia  c. Argentina  d. EU

- Use balanced Scales
  - Ex: The recent trade reforms has resulted in many farmers losing income? Strongly Disagree, Disagree, Somewhat disagree, Undecided, Agree

- Produce variability of responses
  - Ex: Are you familiar with trade facilitation? Yes, No
Formulating Questions

- Do not expect respondents to know answers to very specific questions
  - Ex: How many percent of your staff has attended WCO trainings in the past year? ___
- Do not use unfamiliar words or abbreviations
- Do not use terms for which the definition can vary (if unavoidable, define the term in the questionnaire)

For each question ask yourself: “will all the respondents be able to answer it?”
Formulating Questions

- Avoid Branching
  - Ex: Do you rely on export credit insurance to limit your risks? a. Yes, b. No (If No, go to question 5)

- Do not ask respondent to rank order more than 5 items in a list
  - Scales can provide good alternatives

- Use open-ended question sparingly
  - Respondents may not reply
  - Difficult to analyze (from a statistical point of view)
Ordering of Questions

- Questions should be ordered so as to seem logical to the respondent
- First questions should be relevant and easy
- Questions are effectively ordered from most salient to least salient
- Demographic questions should not be covered at the beginning
- Potentially objectionable questions are placed near the end
Formatting the Questionnaire

- Emphasize crucial words in questions
- Write questions in bold and answer responses in a lighter font
- Avoid banking responses into more than 1 column
- Consider grouping questions under distinct sections
- Introductory page to the questionnaire (+ cover letter)
  - Objective, reward or incentive, contact person, confidentiality
Improving Response Rate

- Increase perceived rewards
  - Be polite, say thank you
  - Summary of results
  - Tangible rewards (money, gift... can be very effective)

- Increase trust
  - Provide a sense of legitimacy
  - Make responding to the questionnaire seem important

- Test the questionnaire
  - Have one respondent fill the questionnaire in your presence
  - Pilot test on small sample

NOTE: In self-administered surveys, the main source of bias comes from non-responses
What Happens After?

- Coding the questionnaire for statistical analyses (for each question, all possible responses are assigned a numerical value)
- Conduct Survey
- Key in the data for analysis
- Compute statistics; estimate econometric models to test your hypothesis or research questions (as appropriate)

http://www.bombaychamber.com/trade-facilitation.htm
References / For further Reading

- Dillman, D.A. “Mail and Internet Surveys – The Tailored Design Method” New York: John Wiley & Sons, Inc.
  - Visit Dillman’s homepage at WSU for free access to some of his research papers
- American Association for Public Opinion Research (www.aapor.org)
- PennState Survey Research Center
  - http://www.ssri.psu.edu/survey/educ.htm