ARTNeT Greater Mekong Sub-region (GMS) initiative

Session 2

Introduction to primary data collection methods

ARTNeT Consultant
Witada Anukoonwattaka, PhD
Thammasat University, Thailand
witada@econ.tu.ac.th
Objectives of this lesson:

- **Overview of primary data surveys**
  - Steps of survey administration
- **Introduction to important primary data collection methods**
  - Identify advantages and disadvantages of different data gathering techniques
First step: Formulating Survey Framework

• What data do you need?
  – understand the purpose of your survey
  – you need to keep this purpose in mind every step of the way.

• Who will be covered?
  – Defining your survey population or sample.
Example

What are you going to evaluate?

• Export competitiveness of garment industry.
• Industry needs to be defined by reference to Harmonized System tariff lines (HS 6) or Standard International Trade Classification (SITC)

How will you measure export competitiveness?

• Relative cost? Relative price?
• Market shares?

What data do you need? Is the data available somewhere?

<table>
<thead>
<tr>
<th>Data</th>
<th>Sources</th>
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<tbody>
<tr>
<td>World Output Price</td>
<td></td>
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<tr>
<td>Relative Costs</td>
<td></td>
</tr>
<tr>
<td>Relative Productivity</td>
<td></td>
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<tr>
<td>Changes in Market shares</td>
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</table>
Who will be covered?

**Population** is the entire group of individuals that we want information about.

**Sample** is the part of the population that we actually examine in order to gather information.
Who do you want to generalize to?

What population can you get access to?

How can you get access to them?

Who is in your study?

Theoretical Population

Study Population

Sampling Frame

The Sample

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Census

• If you survey every person or a whole set of units in target population you are taking a census.

• Sometimes taking a census can be impossible.
  
  – For example, a car manufacturer might want to test the strength of cars being produced. Can you perform crashed tests on every car?
Samples

- *Samples* are taken from populations, and estimates made about the total population based on information derived from the sample.

  - We usually base conclusions about the population on data from the sample. Why?

  - Is the larger the sample the better for drawing conclusions?
Second step: Choosing Sampling Techniques

• How to draw a sample from your target population?
  – Random Sampling
  – Non-random Sampling

Note: We will discuss techniques of sampling methods later.
Third Step: Choosing data collection methods

The main methods include:

- Questionnaires
- Interviews
- Observations
- Case Study

No single method is superior to others in all aspects.
Fourth Step: Developing Survey instruments

- Designing questions

Fifth Step: Pilot testing and revising your survey instruments

- Poor question design will reduce the survey response rate.
- Bad questions and response format can lead to invalidity and unreliability of the survey result.
What next?

• Collecting data in the field
• Analysing the data
• Preparing the report
Summary: Steps for survey administration

- Define the objective and research questions
  - Identify data types and sources.
- Define sample (or population)
- Develop methodology
  - Data collection methods
  - Data analysis techniques
- Draft a survey instrument (questionnaire)
- Pilot test and revise survey instrument
- Collect data in the field
- Evaluate and analyze the data
- Prepare the report
Important Survey Methods
Questionnaires

- Questionnaires are lists of questions used to find out what people think or feel about an issue, product or service.

- They can be filled in the absence of the researcher in the form of a self-administered, group-administered or postal questionnaire.
What do you think about questionnaires compared to interview/observation/ etc.?

• Can it cover a larger number of respondents?
• Is it more expensive to administer
• Is it more time consuming to design and interpret?
When is it good to use a questionnaire?

- When studies involve large sample sizes and large geographic areas.
  - Example: a Nation-wide survey on competitiveness of small garment firms.

- When it is necessary to protect the privacy of the participants.
  - Example: Asking about tax evasion. (confidentiality is necessary to ensure participants will respond honestly)

- When corroborating other findings.
  - It can be a useful tool to confirm other expensive data collection schemes
Limitations of questionnaire surveys

* What happens if you get a low response rate?

** If your response format has little flexibility, you might lose insightful information

E.g. What is your main export market?
    a) US  b) EU  c) China  d) Other ____________

*** Is a written survey to a group of poorly educated people workable?

E.g. Survey on competitiveness of small chicken farms?
Interviews

• *Interviews* are a way to get in-depth and comprehensive information.

• Structured versus Unstructured Interviews
  
  – *A structured interview* follows a specific questionnaire. The aim is usually to gain fixed responses for further quantitative analysis.
  
  – *An unstructured interview* is not controlled by a specific set of detailed questions, but the interviewer is guided by a pre-defined list of issues. The aim is to find out how people think and how they react to issues.
Types of Interview Surveys

• Interviews can be undertaken on a one-to-one basis or in a focused group.

• Interviews may be conducted face-to-face, or through media such as the telephone.

• But, conducting phone interviews in the developing world may have bias towards some groups of people:
  - urban?
  - above average incomes?
  - relatively large enterprises?
When is it good to use personal interviews?

1. When the required respondents are within a specific target group? (experts)

2. When you are investigating decision-making processes?

3. You may use interviews for pilot testing other data collection methods.
When is it good to use a focus group interview?

Focus groups are group-depth interviews in which a small group of participants (usually 8 to 12 persons) are interviewed about selected subjects.

E.g. Bringing a group of people representing various business sectors together to discuss problems of a new trade regulation.

• Looking for insights (qualitative data) into why individuals feel the way they do about particular issues.

E.g. Competitiveness and export potentials of GMS garment industry in AFTA markets.
Limitations of interviews

• Time and cost consuming
• Limited sample sizes and geographic areas
• Differences in the settings may produce variability in the quality of results
• Lack of privacy for sensitive questions
Observation

• Recording the behavioral patterns of people, objects and events in a systematic manner*

• Direct observation versus Unobtrusive Observation
  - Direct observations: respondents are aware they are being observed.
    • Does it affect the accuracy of the survey? **
    • Can you suggest a way to reduce the error?***
  - Unobtrusive observation: respondents do not know they are being observed.
When to use observation?

- When you want direct information*
- When you try to understand an ongoing process or behavior**
- When there are physical products or outcomes that are readily observable.***
Limitations of observation

• Time consuming

• Findings may only reflect a unique population and therefore cannot be generalized

• Risk of researcher bias. The researcher may "see what they want to see".
Case Study

- A fairly intensive examination of a single unit such as a person, a small group of people, or a single company.

- It enables the researcher to explore, and understand problems, issues and relationships.

- Can you conclude that the findings from one case study apply generally?

  - If we do a case study on key garment exporters and the study shows that the firms are successful in exporting, does the result apply to other garment firms in the country as well?
When to use a case study?

• When it is important to understand why the instance happened as it did,
  – historical issues may shape the present situation *,
• When it is more important to clarify the deeper causes behind a given problem and its consequences than to describe the symptoms of the problem and how frequently they occur.
No single survey mode is superior to others in all aspects.

Things to consider

• Types of information needed
  – complex data?

• Data Coverage
  – Wide geographic areas? Large sample size?

• Time and resources (e.g. money and staff)
  – Sample size and survey methods will impact budget, time and available resources.
Summary (2)

Key research processes:

- Define sample (or population)
  - Who am I going to interview?
  - How large is the sample size? How to locate them?

- Choose Data collection methods
  - Written surveys/ Interviews/ Case study/ etc.

- Choose Data analysis techniques
  - Descriptive / Statistics / Econometrics Analysis
  - Patterns of data collection and question designs have to support the analysis technique.