Business Research Skills

Collecting primary data using questionnaires

Introduction

- **Questionnaire** is a general term that includes all techniques of data collection in which each person is asked to respond to the same set of questions in a pre-determined order. It therefore includes both structured interviews and telephone questionnaires as well as those in which the questions are answered without an interviewer being present.

Introduction

- As each person (respondent) is asked to respond to the same set of questions, it provides an efficient way of collecting responses from a large sample prior to quantitative analyses.

Introduction

- However, it is harder to produce a good questionnaire than you might think:
  - You need to ensure that it will collect the precise data that you require to answer your research question and achieve your objectives.
  - You will be unable to go to those anonymous individuals and collect additional data using another questionnaire.

Important steps are:

- Careful design of individual questions
- Clear layout of the questionnaire form
- Lucid explanation of the purpose of the questionnaire
- Pilot testing
- Carefully planned and executed administration

Questionnaire Techniques

- Questionnaires can be used for descriptive or explanatory research.
- Questionnaires can be used as the only data collection method, but also it is usually better to link them with other methods, such as in-depth interviews.

Types of Questionnaire

- The design of a questionnaire differs according to how it is administered and the amount of contact you have with the respondents.
Types of Questionnaires

- **Self-administered questionnaires** are usually completed by the respondents. Such questionnaires are administered electronically using the Internet, posted to respondents who return them by post after completion.

Types of Questionnaires

- Responses to **interviewer-administered questionnaires** are recorded by the interviewer on the basis of each respondent’s answers.

The choice of questionnaire

- Characteristics of the respondents from whom you wish to collect data
- Importance of reaching a particular person as respondent
- Importance of respondents’ answers not being contaminated or distorted

The choice of questionnaire

- Types of questions you need to ask to collect your data
- Number of questions you need to ask to collect your data.
- Size of sample you require for your analysis, taking into account the likely response rate

The choice of questionnaire

**BE CAREFUL**

- Respondents to self-administered questionnaires can discuss their answers with others
- Responses can be distorted when recorded
- If the respondents have insufficient knowledge or experience, they may deliberately guess at the answer

Data analyze

- Some software packages allow you to both design your questionnaire and to enter and analyse the data within the same package; like SNAP and SphinxSurvey.

Research design requirements

- Unlike semi-structured interviews, the questions you ask in questionnaires need to be defined precisely prior to data collection.
Questionnaire offers only one chance to collect data

Research design requirements

Before designing your questionnaire, you must review the literature carefully and discuss your ideas with other experts.

Research design requirements

- You also need to be clear about which relationships you think are likely to exist between variables:
  - **Dependent variable:** It changes in response to changes in other variables
  - **Independent variable:** It causes changes in dependent variables

Types of variable

- **Opinion variables** record how respondents feel about something or what they think or believe is true or false
- However, when recording what respondents do, you are recording their **behaviours**, a concrete experience.
- **Attribute variables** contain data about the respondents' characteristics; things a respondent possesses, rather than things a respondent does.

Ensuring that essential data are collected

- Decide whether the main outcome of your research is descriptive or explanatory
- Subdivide research question or objective into more specific investigative questions about which you need to gather data
- Identify the variables about which you will need to collect data for each variable
- Establish the level of detail required from the data for each variable

Ensuring that essential data are collected

- Investigative questions are the questions that you need to answer in order to address satisfactorily your research question and to meet each objective.
Designing individual questions

- You need to consider the type and wording of the questions. Your wording should be clear and understandable to respondents.
- Most types of questionnaire include a combination of open and closed ended questions.

Open questions

- Open-ended questions are used widely in in-depth and semi-structured interviews. In questionnaires they are useful if you are unsure of the response.
  
  Example:
  6. Please list up to three things you like about your job
  - ..................................
  - ..................................
  - ..................................

Open questions

- With open questions the precise wording of the question and the amount of space partially determine the length and the fullness of the response. However if you leave too much space, the question becomes off-putting. However, since the coding of the responses are time consuming, it is better to keep their use to minimum.

Close ended questions

Divided mainly into six types:

- List questions
- Category questions
- Ranking questions
- Rating questions
- Quantity questions

List questions

- List questions offer the respondent a list of responses, any of which they can choose. The list of responses must be defined clearly and meaningfully to the respondent. You may also wish to add a catch-all category of 'other'.

List questions

Example:

7. What is your religion?
Please tick the appropriate box
Buddhist
Christian
Category questions

- Category questions are designed so that each respondent’s answer can fit only one category. It is better to limit the categories between five and eight.
- You should arrange responses in a logical order so that it is easy to locate the response. Your categories should not overlap, and should cover all possible responses.

Category questions

Example

8. How often do you visit this shopping center?
   - First visit
   - Once a week
   - Less than fortnightly to once a month
   - 2 or more times a week
   - Less than once a week to fortnightly
   - Less often

Ranking questions

- A ranking question asks the respondent to place things into rank order. This means that you can discover their relative importance to the respondent.
- Make sure the instructions are clear and will be understood by the respondent. Your list should be at the most seven or eight items.

Ranking questions

Example:

9. Please number each of the factors listed below in order of importance to you in your choice of a new car. Number the most important 1, next 2 and so on. If a factor has no importance at all, please leave blank.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceleration</td>
<td>()</td>
</tr>
<tr>
<td>Boot size</td>
<td>()</td>
</tr>
<tr>
<td>Depreciation</td>
<td>()</td>
</tr>
<tr>
<td>Safety features</td>
<td>()</td>
</tr>
<tr>
<td>Fuel economy</td>
<td>()</td>
</tr>
<tr>
<td>Price</td>
<td>()</td>
</tr>
<tr>
<td>Driving enjoyment</td>
<td>()</td>
</tr>
<tr>
<td>Other</td>
<td>()</td>
</tr>
</tbody>
</table>
|...........................(please describe)
Rating questions

- **Rating questions** are often used to collect opinion data. The respondent is asked how strongly he/she agrees or disagrees with a statement, usually on a four-, five-, six- or seven-point scale. You should include both positive and negative statements so as to ensure that respondents read each one carefully and think about which box to tick.

Rating questions

**Example**

10. For the following statement please tick the box that matches your view closely.


I feel that employees’ views have influenced the decisions taken by management

Rating questions

**Example**

12. For the following statement please circle the number that matches your view most closely.

This concert was...

Good value 10 9 8 7 6 5 4 3 2 1 Poor value for money

Quantity questions

- The response to a **quantity question** is a number, which gives the amount of a characteristic. Such questions tend to be used to collect behaviour or attribute data.

Quantity questions

**Example:**

14. What is your year of birth?

(for example, for 1980, write:)

**Question wording**

Ask yourself;
Can your question be shortened?
Are you asking more than one question at a time?
Does your question imply that a certain answer is correct?
Are there any words in your question that might cause offence?
Will all words be understood by all respondents in the same way?

**Question coding**
- If you are planning to analyse your data by computer, they will need to be coded prior to entry. For quantity questions, actual numbers can be used as codes. For other questions you will need to design a coding schema.

**Designing the survey form**
- The order and flow of questions: To assist the flow of the survey, it may be necessary to include filter questions. These identify those respondents for whom the following question/s are not applicable, so they can skip those questions. But be careful about not using more than two or three filter questions as respondents might be annoyed.

**Example for filter question:**
19. Are you currently registered as employed? Yes No
If ‘no’ go to question 25

**Designing the survey form**
- The layout of questionnaire:
  - Interviewer administered questionnaires should be designed to make reading questions and filling in responses easy.
  - The layout of the self-administered questionnaires should be attractive enough to encourage the respondent to fill it in, while not appearing too long.

**Designing the survey form**
- The layout of questionnaire:
  - Do not make the questionnaire longer than is really necessary to meet your research question and objectives.
  - Do not be too obsessed with the length of your questionnaire.
  - In general, a length between four and eight A4 pages is acceptable.
Quantity questions

Example:

For each of the following statements please tick the box that most closely matches your experience.

<table>
<thead>
<tr>
<th></th>
<th>monthly</th>
<th>every 3</th>
<th>every 6</th>
<th>never</th>
</tr>
</thead>
<tbody>
<tr>
<td>months</td>
<td>months</td>
<td>months</td>
<td>months</td>
<td></td>
</tr>
</tbody>
</table>

23. I receive a company site newsletter.
24. I receive other company publications.