

Chapter 9

Survey Research

Survey research is a research method involving the use of standardized questionnaires or interviews to collect data about people and their preferences, thoughts, and behaviors in a systematic manner. Although census surveys were conducted as early as Ancient Egypt, survey as a formal research method was pioneered in the 1930-40s by sociologist Paul Lazarsfeld to examine the effects of the radio on political opinion formation of the United States. This method has since become a very popular method for quantitative research in the social sciences.

The survey method can be used for descriptive, exploratory, or explanatory research. This method is best suited for studies that have individual people as the unit of analysis. Although other units of analysis, such as groups, organizations or dyads (pairs of organizations, such as buyers and sellers), are also studied using surveys, such studies often use a specific person from each unit as a “key informant” or a “proxy” for that unit, and such surveys may be subject to respondent bias if the informant chosen does not have adequate knowledge or has a biased opinion about the phenomenon of interest. For instance, Chief Executive Officers may not adequately know employee’s perceptions or teamwork in their own companies, and may therefore be the wrong informant for studies of team dynamics or employee self-esteem.

Survey research has several inherent strengths compared to other research methods. First, surveys are an excellent vehicle for measuring a wide variety of unobservable data, such as people’s preferences (e.g., political orientation), traits (e.g., self-esteem), attitudes (e.g., toward immigrants), beliefs (e.g., about a new law), behaviors (e.g., smoking or drinking behavior), or factual information (e.g., income). Second, survey research is also ideally suited for remotely collecting data about a population that is too large to observe directly. A large area, such as an entire country, can be covered using mail-in, electronic mail, or telephone surveys using meticulous sampling to ensure that the population is adequately represented in a small sample. Third, due to their unobtrusive nature and the ability to respond at one’s convenience, questionnaire surveys are preferred by some respondents. Fourth, interviews may be the only way of reaching certain population groups such as the homeless or illegal immigrants for which there is no sampling frame available. Fifth, large sample surveys may allow detection of small effects even while analyzing multiple variables, and depending on the survey design, may also allow comparative analysis of population subgroups (i.e., within-group and between-group analysis). Sixth, survey research is economical in terms of researcher time, effort and cost than most other methods such as experimental research and case research. At the same time, survey research also has some unique disadvantages. It is subject to a large number of biases such as non-response bias, sampling bias, social desirability bias, and recall bias, as discussed in the last section of this chapter.

Depending on how the data is collected, survey research can be divided into two broad categories: questionnaire surveys (which may be mail-in, group-administered, or online surveys), and interview surveys (which may be personal, telephone, or focus group interviews). Questionnaires are instruments that are completed in writing by respondents, while interviews are completed by the interviewer based on verbal responses provided by respondents. As discussed below, each type has its own strengths and weaknesses, in terms of their costs, coverage of the target population, and researcher's flexibility in asking questions.

Questionnaire Surveys

Invented by Sir Francis Galton, a **questionnaire** is a research instrument consisting of a set of questions (items) intended to capture responses from respondents in a standardized manner. Questions may be unstructured or structured. Unstructured questions ask respondents to provide a response in their own words, while structured questions ask respondents to select an answer from a given set of choices. Subjects' responses to individual questions (items) on a structured questionnaire may be aggregated into a composite scale or index for statistical analysis. Questions should be designed such that respondents are able to read, understand, and respond to them in a meaningful way, and hence the survey method may not be appropriate or practical for certain demographic groups such as children or the illiterate.

Most questionnaire surveys tend to be **self-administered mail surveys**, where the same questionnaire is mailed to a large number of people, and willing respondents can complete the survey at their convenience and return it in postage-prepaid envelopes. Mail surveys are advantageous in that they are unobtrusive, and they are inexpensive to administer, since bulk postage is cheap in most countries. However, response rates from mail surveys tend to be quite low since most people tend to ignore survey requests. There may also be long delays (several months) in respondents' completing and returning the survey (or they may simply lose it). Hence, the researcher must continuously monitor responses as they are being returned, track and send reminders to non-respondents repeated reminders (two or three reminders at intervals of one to 1.5 months is ideal). Questionnaire surveys are also not well-suited for issues that require clarification on the part of the respondent or those that require detailed written responses. Longitudinal designs can be used to survey the same set of respondents at different times, but response rates tend to fall precipitously from one survey to the next.

A second type of survey is **group-administered questionnaire**. A sample of respondents is brought together at a common place and time, and each respondent is asked to complete the survey questionnaire while in that room. Respondents enter their responses independently without interacting with each other. This format is convenient for the researcher, and high response rate is assured. If respondents do not understand any specific question, they can ask for clarification. In many organizations, it is relatively easy to assemble a group of employees in a conference room or lunch room, especially if the survey is approved by corporate executives.

A more recent type of questionnaire survey is an online or web survey. These surveys are administered over the Internet using interactive forms. Respondents may receive an electronic mail request for participation in the survey with a link to an online website where the survey may be completed. Alternatively, the survey may be embedded into an e-mail, and can

be completed and returned via e-mail. These surveys are very inexpensive to administer, results are instantly recorded in an online database, and the survey can be easily modified if needed. However, if the survey website is not password-protected or designed to prevent multiple submissions, the responses can be easily compromised. Furthermore, sampling bias may be a significant issue since the survey cannot reach people that do not have computer or Internet access, such as many of the poor, senior, and minority groups, and the respondent sample is skewed toward a younger demographic who are online much of the time and have the time and ability to complete such surveys. Computing the response rate may be problematic, if the survey link is posted on listservs or bulletin boards instead of being e-mailed directly to targeted respondents. For these reasons, many researchers prefer dual-media surveys (e.g., mail survey and online survey), allowing respondents to select their preferred method of response.

Constructing a survey questionnaire is an art. Numerous decisions must be made about the content of questions, their wording, format, and sequencing, all of which can have important consequences for the survey responses.

Response formats. Survey questions may be structured or unstructured. Responses to structured questions are captured using one of the following response formats:

- *Dichotomous response*, where respondents are asked to select one of two possible choices, such as true/false, yes/no, or agree/disagree. An example of such a question is: Do you think that the death penalty is justified under some circumstances (circle one): yes / no.
- *Nominal response*, where respondents are presented with more than two unordered options, such as: What is your industry of employment: manufacturing / consumer services / retail / education / healthcare / tourism & hospitality / other.
- *Ordinal response*, where respondents have more than two ordered options, such as: what is your highest level of education: high school / college degree / graduate studies.
- *Interval-level response*, where respondents are presented with a 5-point or 7-point Likert scale, semantic differential scale, or Guttman scale. Each of these scale types were discussed in a previous chapter.
- *Continuous response*, where respondents enter a continuous (ratio-scaled) value with a meaningful zero point, such as their age or tenure in a firm. These responses generally tend to be of the fill-in-the blanks type.

Question content and wording. Responses obtained in survey research are very sensitive to the types of questions asked. Poorly framed or ambiguous questions will likely result in meaningless responses with very little value. Dillman (1978) recommends several rules for creating good survey questions. Every single question in a survey should be carefully scrutinized for the following issues:

- *Is the question clear and understandable:* Survey questions should be stated in a very simple language, preferably in active voice, and without complicated words or jargon that may not be understood by a typical respondent. All questions in the questionnaire should be worded in a similar manner to make it easy for respondents to read and understand them. The only exception is if your survey is targeted at a specialized group

of respondents, such as doctors, lawyers and researchers, who use such jargon in their everyday environment.

- *Is the question worded in a negative manner:* Negatively worded questions, such as should your local government not raise taxes, tend to confuse many responses and lead to inaccurate responses. Such questions should be avoided, and in all cases, avoid double-negatives.
- *Is the question ambiguous:* Survey questions should not words or expressions that may be interpreted differently by different respondents (e.g., words like “any” or “just”). For instance, if you ask a respondent, what is your annual income, it is unclear whether you referring to salary/wages, or also dividend, rental, and other income, whether you referring to personal income, family income (including spouse’s wages), or personal and business income? Different interpretation by different respondents will lead to incomparable responses that cannot be interpreted correctly.
- *Does the question have biased or value-laden words:* Bias refers to any property of a question that encourages subjects to answer in a certain way. Kenneth Rasinky (1989) examined several studies on people’s attitude toward government spending, and observed that respondents tend to indicate stronger support for “assistance to the poor” and less for “welfare”, even though both terms had the same meaning. In this study, more support was also observed for “halting rising crime rate” (and less for “law enforcement”), “solving problems of big cities” (and less for “assistance to big cities”), and “dealing with drug addiction” (and less for “drug rehabilitation”). A biased language or tone tends to skew observed responses. It is often difficult to anticipate in advance the biasing wording, but to the greatest extent possible, survey questions should be carefully scrutinized to avoid biased language.
- *Is the question double-barreled:* Double-barreled questions are those that can have multiple answers. For example, are you satisfied with the hardware and software provided for your work? In this example, how should a respondent answer if he/she is satisfied with the hardware but not with the software or vice versa? It is always advisable to separate double-barreled questions into separate questions: (1) are you satisfied with the hardware provided for your work, and (2) are you satisfied with the software provided for your work. Another example: does your family favor public television? Some people may favor public TV for themselves, but favor certain cable TV programs such as *Sesame Street* for their children.
- *Is the question too general:* Sometimes, questions that are too general may not accurately convey respondents’ perceptions. If you asked someone how they liked a certain book and provide a response scale ranging from “not at all” to “extremely well”, if that person selected “extremely well”, what does he/she mean? Instead, ask more specific behavioral questions, such as will you recommend this book to others, or do you plan to read other books by the same author? Likewise, instead of asking how big is your firm (which may be interpreted differently by respondents), ask how many people work for your firm, and/or what is the annual revenues of your firm, which are both measures of firm size.
- *Is the question too detailed:* Avoid unnecessarily detailed questions that serve no specific research purpose. For instance, do you need the age of each child in a household or is just the number of children in the household acceptable? However, if unsure, it is better to err on the side of details than generality.
- *Is the question presumptuous:* If you ask, what do you see are the benefits of a tax cut, you are presuming that the respondent sees the tax cut as beneficial. But many people may not view tax cuts as being beneficial, because tax cuts generally lead to lesser

- funding for public schools, larger class sizes, and fewer public services such as police, ambulance, and fire service. Avoid questions with built-in presumptions.
- *Is the question imaginary:* A popular question in many television game shows is “if you won a million dollars on this show, how will you plan to spend it?” Most respondents have never been faced with such an amount of money and have never thought about it (most don’t even know that after taxes, they will get only about \$640,000 or so in the United States, and in many cases, that amount is spread over a 20-year period, so that their net present value is even less), and so their answers tend to be quite random, such as take a tour around the world, buy a restaurant or bar, spend on education, save for retirement, help parents or children, or have a lavish wedding. Imaginary questions have imaginary answers, which cannot be used for making scientific inferences.
 - *Do respondents have the information needed to correctly answer the question:* Often times, we assume that subjects have the necessary information to answer a question, when in reality, they do not. Even if a response is obtained, in such case, the responses tend to be inaccurate, given their lack of knowledge about the question being asked. For instance, we should not ask the CEO of a company about day-to-day operational details that they may not be aware of, or asking teachers about how much their students are learning, or asking high-schoolers “Do you think the US Government acted appropriately in the Bay of Pigs crisis?”

Question sequencing. In general, questions should flow logically from one to the next. To achieve the best response rates, questions should flow from the least sensitive to the most sensitive, from the factual and behavioral to the attitudinal, and from the more general to the more specific. Some general rules for question sequencing:

- Start with easy non-threatening questions that can be easily recalled. Good options are demographics (age, gender, education level) for individual-level surveys and firmographics (employee count, annual revenues, industry) for firm-level surveys.
- Never start with an open ended question.
- If following an historical sequence of events, follow a chronological order from earliest to latest.
- Ask about one topic at a time. When switching topics, use a transition, such as “The next section examines your opinions about ...”
- Use filter or contingency questions as needed, such as: “If you answered “yes” to question 5, please proceed to Section 2. If you answered “no” go to Section 3.”

Other golden rules. Do unto your respondents what you would have them do unto you. Be attentive and appreciative of respondents’ time, attention, trust, and confidentiality of personal information. Always practice the following strategies for all survey research:

- People’s time is valuable. Be respectful of their time. Keep your survey as short as possible and limit it to what is absolutely necessary. Respondents do not like spending more than 10-15 minutes on any survey, no matter how important it is. Longer surveys tend to dramatically lower response rates.
- Always assure respondents about the confidentiality of their responses, and how you will use their data (e.g., for academic research) and how the results will be reported (usually, in the aggregate).
- For organizational surveys, assure respondents that you will send them a copy of the final results, and make sure that you follow up with your promise.
- Thank your respondents for their participation in your study.