TOOL 10

A Guide to Designing Surveys

José Linares Fontela

Market research is a key component in the process of developing and marketing savings products. Among the most useful market research tools is the survey. This section describes how to develop, administer, and analyze a survey in seven steps:

1. Decide if a survey is the right tool.
2. Select the appropriate type of survey.
3. Define the *universe* and the *sample*.
4. Design the questionnaire.
5. Train staff and administer the questionnaire.
6. Use software to process the data.
7. Write a report of the findings and conclusions.

1. Decide if a Survey is the Right Tool

The first step is to decide if a survey is the right tool for the situation. There are three *advantages* to conducting a survey:

- **Precision:** The information gathered is fairly precise, usually within a 5 percent error rate.
- **Classification:** The information can be classified by geographical area, market segment, institution, etc.
- **Valuable conclusions:** Surveys can focus on specific data and relationships to yield valuable conclusions that managers and the marketing department can use to better define an institution's market strategies.

Surveys also have some *disadvantages*:

- **Cost:** Since they involve many resources, surveys can be costly.
- **Experience required:** A survey must be designed and administered by experienced professionals.
- **Limited information:** The questions covered in a survey are primarily "closed;" that is, the information is predefined and the answer options are limited.

2. Select the Appropriate Type of Survey

Managers must decide exactly what type of information they want to find out in order to decide which type of survey is appropriate for the situation. Among the survey techniques are:

- **In-person interview**
  - In private locations, such as homes or workplaces;
  - People passing by on the street; or
  - People in a particular place, such as visitors to the financial institution.
- **Brief versus in-depth**
- **Telephone interview**
- **Mail survey**
- **Internet form**

The survey technique is selected based on (1) the type of information an institution needs to gather, and (2) the amount of resources available for conducting the survey. Brief in-person interviews of people passing by on the street are less expensive than in-depth interviews in homes or workplaces, but the information gathered may be less detailed. Telephone interviews are less expensive than in-person interviews, but they will be limited to people who have telephones and it may be difficult to verify that the selected sample is actually the person answering the questions. A mail survey is even less expensive, but there is no way to assure that the survey will be filled out and returned. An Internet form survey is also inexpensive, but it is limited to only those who have Internet access.

3. Define the *Universe* and the *Sample*

As the type of survey is selected, the *universe* and the *sample* are defined.

The universe is the whole population to which the survey conclusions will apply. An accurate definition of the universe is important because an inaccurate definition will lead to incorrect conclusions, even if the research has been well conducted. If the universe is too large, then the cost of the survey will be higher and the conclusions less specific. For example, if the objective of the research is to find out about client behavior, then the information should be collected only from existing clients. The results obtained would be valid only for clients, and could not be applied to the general public.

Once the universe has been defined, the samples (or interviewees) are identified so that the survey questions are asked of people who fit into the universe conditions. For example, if the universe is defined as people who are clients, then every interviewee must be an existing client. Surveys completed by non-clients would not supply usable information.

The precision of the results will depend on the sample size and the way the samples are selected by the interviewer. The following characteristics should be considered in identifying the samples:

- **Sample size:** The sample size can be estimated using statistical tables that set out the level of confidence in the responses and the expected error rate. Cost is also a factor. The most expensive survey is a census, where 100 percent of the universe is interviewed. A smaller sample involves fewer interviews and, therefore, costs less. At the same time, a smaller sample yields a lower level of confidence and a higher error rate. Creators of the survey must find the appropriate balance between the cost and the confidence level and error rate. If the conclusions will be sorted into categories, the smallest sample should be 30 for any category.
- **Sample identification in the field:** Confidence levels and error rates are affected by the method used to select interviewees. All the members of a universe must have the same probability of being chosen as a sample. This is achieved through random selection. For example, a street block has 30 houses and the survey requires six samples from that block. The interviewer selects the first house at random and then every fifth house

after that. Starting with house #1, the interviewer would also visit houses #6, #11, #16, #21, and #26 on the block. The same method applies to selecting people passing by. The interviewer decides, for example, to interview every fourth person. Once the first person is selected at random, then interviewer talks with every fourth person. Starting with person #3, the interviewer would then talk with persons #7, #11, #15, #19, and so on, until the appropriate number of samples has been obtained.

- **Sample collection supervision:** The interviewer should obtain at least the name and telephone number of the interviewee when conducting a telephone or passers-by survey. The name and address should be obtained for a geographically defined sample. This information aids the survey analysts in verifying that the interview took place with right sample, and that the survey was properly completed by that sample and no other.

4. Design the Questionnaire

There are three steps to designing an effective questionnaire or survey:

1. Define the scope of the information to be obtained.
2. Determine the order of the questions.
3. Decide what type of question formats will obtain the information needed.

Scope of the information to be obtained: A preliminary checklist should be created to list all the issues to be explored in the questionnaire. This early checklist will be useful in defining the scope of the information that will be gathered with the survey. At this stage, the order of the questions is not important. A checklist for a survey could look something like this:

- Universe: People who have at least one account in a financial institution but who are not existing clients
- Type of accounts they hold
- Names of institutions where they hold the accounts
- Balance of the accounts

- Client's rating of the institution based on each of these criteria:
  - Service quality
  - Points of service
  - Financial products and services menu
  - Rates
- Expectations about the services they would like to receive from their own financial institution
- Ranking of the three best financial institutions in the local market in terms of:
  - Service quality
  - Points of Service
  - Financial products and services menu
  - Rates
- Sample's (interviewee's) profile
  - Gender
  - Age
  - Education level
  - Occupation
  - Marital status

Each issue on the checklist should be converted into a question that will be asked in the survey.

The order of the questions: The questions must be ordered in such a way so that answering one question does not influence or bias the answer of a later question. For example, if the interviewer asks which financial institution is preferred and then asks the interviewee to rank institutions, the first question will influence the answer to the second question. Or, if the interviewer first asks questions about the institution sponsoring the survey, those questions will influence the interviewee's opinions of the institution when he or she is asked to compare it with other institutions.

The question formats: Questions can be written in several formats. Some types are more effective than others, depending on the type of information sought in the survey.

- **One-option question:** This is the most basic type of question. The interviewee is asked to select one of two answers; for example, yes or no, male or female.
- **Several-option question with one answer:** This type of question gives the interviewee several answering options, of which the interviewee must choose only one option; for example, age range (20-29, 30-39, etc.) or income range ($100-$499 per year, $500-$999 per year, etc.).
- **Several-option question with more than one answer:** This type of question gives the interviewee several options, and permits more than one answer; for example, what type of accounts does the interviewee have in financial institutions (savings, checking, loans, certificates of deposit, etc.) or which financial services the interviewee would like to receive from the financial institution (savings, direct deposit, loans, etc.).
- **Ranking question:** This question asks the interviewee to order or rank several options; for example, from first to last, or from best to worst.
- **Weighted question:** This question asks the interviewee to order or rank options, assigning a number value or weight to each possible answer. Several answers can have the same weight, unlike ranking questions where no two answers can have the same position.
- **List question:** This is an open question in which the interviewee is asked to list a minimum number of answers in his or her own words; for example, "list three advantages of the financial institution where you keep your account," or "list two services you would like a financial institution to offer." Analysts must group these types of answers by similarities when tabulating; for example, a certificate of deposit may be the same as a term account, or a retirement account may be the same as a programmed account.
- **Open question:** This question asks the interviewee to describe something; for example, "describe a savings account." No more than 5 percent of the survey question should be open questions.

A survey that is conducted by telephone or given to people passing by should be no longer than 30 questions (plus the profile questions). If the questionnaire is given in a place where the interviewee and the interviewer can sit comfortably, it can be as long as 50 questions (plus the profile questions).

When extensive information is required, it may be more effective to design two or more surveys. While additional questionnaires will incur more costs, more precise information will be obtained. A survey with too many questions may cause interviewees to become tired or bored, and could prevent them from completing the questionnaire or providing accurate information as a result.

5. Train Staff and Administer the Questionnaire

A questionnaire must be tested before it is administered to the full sample population. As the testing is conducted, the staff or hired interviewers must be trained in how to conduct the survey. After collecting all the completed questionnaires, managers must validate that the appropriate samples were interviewed and that all surveys are complete.

Pilot testing the questionnaire: Before giving the questionnaire to interviewees, a controlled and limited survey should be conducted to identify difficulties with any of the questions. The pilot survey results should be analyzed to check for any problems. Pilot testing should ensure that the questions are written clearly and that there will be no bias toward any answers. Some aspects to consider in the evaluation of the pilot test are:

- Are the questions ordered logically?
- Are the questions easy for interviewees to understand?
- How long will it take to complete the questionnaire?
- What difficulties may interviewees have in completing the questionnaire?
- How will one question affect the answer of a subsequent question?

Training the interviewers: The interviewers should be trained in how to administer the survey. Interviewers must know the purpose of each question and how to ask the questions without suggesting responses.

They must be able to communicate clearly with the interviewees and know how to properly record the answers.

Conducting the interviews: All interviewers must follow the same procedures when administering the survey, so that results will not be skewed by individual practices. The interviewers must:

- Follow the selection methodology.
- Avoid influencing answers by making comments or giving opinions.
- Be patient with the interviewees.
- Encourage the interviewees to answer all the questions.
- Remain as objective as possible.

Validating the results: Once the interviews are complete, someone other than the interviewer should validate at least 20 percent of the surveys. This is done in order to ensure that:

- The interviewer actually did distribute the questionnaire.
- The interviewees were the right samples to complete the survey.
- The information was not invented. (If the interviewees did not complete the questionnaire, sometimes interviewers will complete the surveys themselves.)

If problems are identified in several surveys administered by one interviewer, all the questionnaires by that interviewer must be discarded or the analysis will be invalid.

6. Use Software to Process the Data

A commercial statistical program should be used to process the survey data. This type of software creates the charts and graphics needed to facilitate data interpretation and report writing.

Coding the answers: Once the surveys are validated, the answers that were not pre-coded must be coded and the information must be entered into the information processing system.

- Coding answers to open questions: Open questions will produce a variety of responses. Similar answers must be grouped and each kind of response must be assigned a code. This can

be a difficult task, as the coder must interpret the responses and group those that are similar but worded differently.

- Coding answers to other types of questions: Other types of questions do not need to be specially coded, since the codes are written as part of the questionnaire. For example, if the first question has three possible answers, they are pre-coded 101, 102, and 103.

Producing frequency and percentage charts: The statistical software can be used to produce a series of frequency and percentage charts. The charts show the frequency and percentage for each answer. The charts will also show how the numbers are distributed as a quality control, enabling analysts to identify anomalies. The data can be ordered from the highest to the lowest number (or in other ways) to aid in data interpretation. Along with the number of responses for each answer, the software displays the percentage for each answer. The software will disregard "no response" answers in its tabulations.

Obtaining cross tabulations: The software reports response numbers for each question by frequency and percentage. It also analyzes the data by profile. For example, each question is analyzed by age, sex, income, or other identifying profile data. The software can cross tabulate the data of related questions. For example, it can compare a question about the financial services most frequently used with services most desired among a certain age group.

Generating statistics: The software produces many types of statistics; the average and dispersion data are generally most useful. These statistics allow analysts to view the answers that receive the highest number of responses and the ranges around which most of the data are clustered. Correlation measures are also useful, as they help analysts to identify cause-and-effect relationships between questions.

Desegregating the data: The software can be used to desegregate data in two ways: (1) It can "filter" the data, showing only specific information for one element; for example, for all interviewees with income above $500 (other information will not be shown). (2) The software can cross tabulate data, showing only data that correspond to the desegregated question. For example, it can display data for all branches that serve

interviewees over age 60. Data desegregation allows analysts to identify the patterns in responses.

7. Write a Report of the Findings and Conclusions

In writing the final report, the analyst should include information about the relationship (or lack of relationship) between numbers, use charts and graphs to display data, and draw conclusions from the data obtained through the survey.

Looking for relationships: The analyst reviews the charts to identify relationships, either positive (when answers to one question grow as the answers to another question also grow) or negative (when answers to one question increase as the answers to another question decrease). Even if two questions are unrelated, the comparison can be important. The relative weight (percentages) of the answers is also important.

Including graphics: Converting the data into charts and graphs aids the readers in understanding the significance of the data and drawing conclusions from the patterns revealed. Graphs make data easier to comprehend. Frequency and percentage conclusions can be illustrated in pie graphs. Bar graphs are frequently used to show cross tabulations.

Drawing conclusions: An analyst who is familiar with the particular survey and experienced in reporting survey findings can often identify and report relationships that will help the product designers, managers, and marketers to make more effective decisions in the provision of savings services.