Chapter 4
Getting Data

Learning Objectives

After reading this chapter, you should understand:

- How to gather secondary data.
- How to collect primary data.
- How to design a basic questionnaire.
- How to set up basic experiments.
- How to set up basic qualitative research.

Keywords CRM · Constant sum scale · Directly and indirectly observed qualitative data · Ethnographies · Experiments · Face-to-face interviewing · Focus groups · Internal and external secondary data · Interviews · Likert scale · Mail surveys · Mixed mode · Observational studies · Projective techniques · Semantic differential scale · Surveys · Telephone interviews · Test markets · Web surveys

Introduction

In the previous chapter, we discussed some of the key theoretical concepts and choices prior to collecting data such as validity, reliability, sampling, and sample sizes. We also discussed different types of data. Building on Chap. 3, this chapter discusses the practicalities of collecting data. First, we discuss how to collect quantitative and qualitative secondary data. Subsequently, we discuss how to collect primary data through surveys. We also introduce experimental research and some basics of primary qualitative research.

We discuss the practicalities of secondary data prior to those of primary data. Market researchers should always consider secondary before collecting primary data as secondary data tends to be cheaper, usually takes less time to collect, and does not depend on the respondents' willingness to participate. However, if secondary data are unavailable or outdated, primary data may have to be collected. All secondary and primary data can be divided into quantitative and qualitative data. In Table 4.1, we provide an overview of some types of secondary and primary, quantitative, and qualitative data. These and some other types will be discussed in this chapter.

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Table 4.1 Types of data: secondary vs. primary and quantitative vs. qualitative data

	Secondary data	Primary data
Quantitative data	Examples: – CIA-The World Factbook – Existing customer satisfaction databases, e.g., J.D. Power's Initial Quality Study – Existing sales figures, e.g., Nielsen's Retail Management Services	Examples: – Survey undertaken by management to measure customer satisfaction – Experiment used to design a new product
Qualitative data	Examples: – Written reports, e.g., the McKinsey Quarterly, industry reports by OliverWyman	Examples: – Interviews – Focus groups – Mystery shopping – Ethnographies – Projective techniques – Test markets

Secondary Data

Secondary data are data that have already been gathered, often for a different research purpose. Secondary data comprise internal secondary data, external secondary data, or a mix of both. In Fig. 4.1, we show an overview of different types of secondary data.

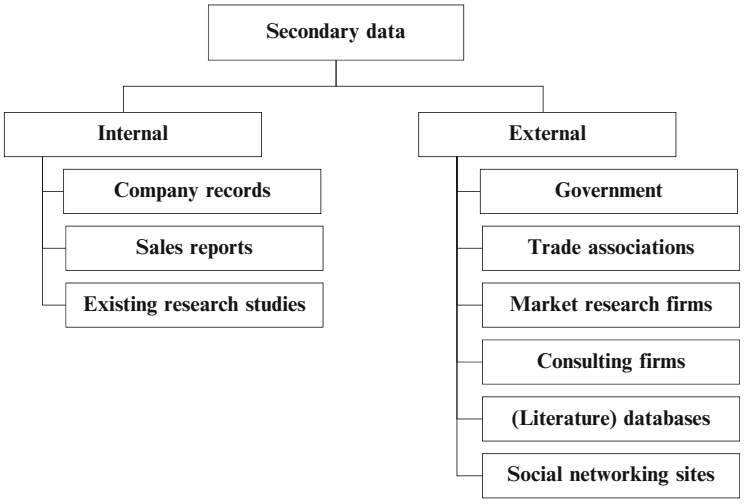

Fig. 4.1 Sources of secondary data

Internal Secondary Data

Internal secondary data are contained within the company and are mostly tailored towards specific needs. Large companies specifically have systems in place, such as

accounting and enterprise resource planning (ERP) systems, in which vast amounts of data on customers, transactions, and performances are stored. In general terms, internal secondary data comprise internal company records, sales reports, and existing research studies.

Company records are a firm's repository of information. Internal company records may contain data from different business functions, such as controlling or CRM (*Customer Relationship Management*). Controllers provide internal reviews of organizations' financial well-being and may provide strategic advice. Controllers may therefore have access to much of the firm's financial and operational data. CRM is a term that refers to a system of databases and analysis software to track and predict customer behavior. The database systems, on which the analysis software runs, are marketed by firms such as IBM, Microsoft, and Oracle. These database management systems often include information on, for example, purchasing behavior, (geo-)demographic customer data, and after-sales service provided. This information is often compiled and coordinated so that marketers can track individual customers over different sales channels and types of products to tailor offerings to customers. The analysis software that runs on top of these databases is sold by a number of information technology companies such as SAP, Oracle, and Salesforce.com. Companies often use CRM systems to, for example, identify customer trends, calculate profitability per customer, or identify opportunities for selling new, or different products. The CRM market is substantial, generating over USD 9 billion in sales during 2008.[1]

Sales reports are created when products and services are sold to clients. Many of these reports contain details of the discussions held with clients and the products/services sold. Consequently, they can provide insights into customers' needs. Sales reports also provide a means to retain customers' suggestions regarding products and services. These reports can be a highly productive source of market research information. For example, DeMonaco et al. (2005) discovered that 59% of existing drugs have uses other than described by the producing company. Evidently, it is important to be aware of a drug's uses. Discussions with doctors, hospitals, and research institutes can help reveal the different uses of these drugs. When sales reports are available, they are often part of a CRM system.

Existing research studies are a good source of secondary data, even if they were conducted for a (slightly) different purpose. Carefully consider whether existing research studies are still useful and what you can learn from them. Even if you deem the findings of such studies as outdated, the measures that they contain may be very useful. In order to use existing research studies, it is important that enough of their details are available. Clients ask market research agencies with which they do business to make the data and a detailed description of the analysis available. If only the final report is received, you need to go back to the market research agency to re-analyze the findings.

[1] See http://www.gartner.com/it/page.jsp?id=1074615.

External Secondary Data

Governments often provide general data that can be used for market research purposes. For example, The CIA-The World Factbook (see Box 4.1) provides information on the economy, politics, and other issues of nearly every country in the world. Eurostat (the statistics office of the European Union) provides detailed information on the economy and different market sectors (see Box 4.1). Much of this information is free of charge and provides an easy starting point for market research studies.

Box 4.1 Web links and mobile tags

CIA World Fact Book
https://www.cia.gov/library/publications/the-world-factbook/

Eurostat
http://epp.eurostat.ec.europa.eu/

Nielsel's Retail Management Services
http://en-us.nielsen.com/tab/product_families/nielsen_retail_direct

IRI's Etilize
http://www.etilize.com/index.en.html

Trade associations are organizations representing different companies and are aimed at promoting their common interests. For example, the Auto Alliance, consisting of US automakers, provides information on the sector and lists the key issues it faces. The European Federation of Pharmaceutical Industries and Associations represents 2,200 pharmaceutical companies operating in Europe. The federation provides a detailed list of key figures and facts and regularly offers statistics on the industry. Most other trade associations also provide lists that include the members' names and addresses. These can be used, for example, as a sampling frame (see Chap. 3). Most trade associations consider identifying their members' opinions a key task and consequently collect data on a regular basis. These data are then typically included in reports that may be downloadable from the organization's website. Such reports can be a short-cut to identifying key issues and challenges in specific industries. Sometimes, these reports are free of charge but non-members usually need to pay a (mostly substantial) fee.

Market research firms are another source of secondary information. Particularly large market research firms provide syndicated data (see Chap. 1) used for many different clients. Some examples of syndicated data include Nielsen's Retail Management Services, IRI's Etilize, and J.D. Power's Initial Quality Study. Nielsen's Retail Management Services (see Box 4.1) provides detailed information on the sales of individual products across different retailers. IRI's Etilize (see Box 4.1) offers aggregated data on more than 7 million products from 20,000 manufacturers in 30 countries, and in 20 languages. J.D. Power's Initial Quality Study provides insights into the initial quality of cars in the US, while J.D. Power's Vehicle Ownership Satisfaction Study contains similar data for other markets, such as New Zealand or Germany.

Consulting firms are a rich source of secondary data. Most firms publish full reports or summaries of reports on their website. For example, McKinsey & Company provides the McKinsey Quarterly, a business journal that includes articles on current business trends, issues, problems, and solutions. Oliver Wyman publishes regular reports on trends and issues across many different industries. Other consulting firms, such as Gartner and Forrester, also provide panel data on various topics. These data can be purchased and used for secondary analysis. For example, Forrester maintains databases on market segmentation, the allocation of budgets across firms, and the degree to which consumers adopt various innovations. Consulting firms provide general advice, information, and knowledge as opposed to market research firms, which only focus on marketing-related applications. In practice, there is however some overlap in the activities undertaken by consulting and market research firms.

(Literature) databases contain professional and academic journals, newspapers, and books. Some of the prominent literature databases are ProQuest (http://www.proquest.co.uk) and JSTOR (http://www.jstor.org). ProQuest is unique in that it contains over 9,000 trade journals, business publications, and leading academic journals, including highly regarded publications in the market research area, such as the Journal of Marketing and the Journal of Marketing Research. However, one needs a subscription to gain access to this literature. Students, and sometimes

alumni, can often access this site via their academic institution. Certain companies also provide access. JSTOR is similar to ProQuest but is mostly aimed at academics. Consequently, it provides access to nearly all leading academic journals. A helpful feature of JSTOR is that the first page of academic articles (which usually contains the abstract) can be read free of charge. In addition, nearly all of JSTOR's information is searchable via Google Scholar (discussed in Box 4.2). Certain database firms make firm-level data, such as names and addresses, available. For example, Bureau van Dijk (http://www.bvdep.com) as well as Dun and Bradstreet (http://www.dnb.com) publish extensive lists that contain the names of firms, the industry in which they operate, their profitability, key activities, and address information. This information is often used as a sampling frame for survey studies.

Social networking sites, such as LinkedIn, Twitter, Facebook, or MySpace, can provide market researchers with valuable information since social networking profiles often reflect how people would like to be perceived by others and, thus, display consumers' intentions. Product or company-related user groups are of specific interest to market researchers. Take, for example, comments posted on a Facebook group site such as: "I bet I can find 1,000,000 people who dislike Heineken." An analysis of these postings could help one understand how people perceive this brand. Interpretations of such postings usually include analyzing five elements: the agent (who is posting?), the act (what happened, i.e., what aspect is the posting referring to?), the agency (what vehicle is used to perform the action), the scene (what is the background situation?), and the purpose (why do the agents act?). By analyzing this information, market researchers can gain insight into consumers' motives and actions. For example, Casteleyn et al. (2009) show that the Facebook posts regarding Heineken reveal a negative image of the brand in Belgium. Another example of a website that provides social networking facilities is tripadvisor.com, which provides customer ratings of holidays, trips, and excursions and includes detailed customer feedback. Even some online stores, such as Amazon.com and eBay.com provide social networking facilities. Amazon.com, for example, provides customer ratings and feedback on the products it sells. Several companies, such as Attensity (http://www.attensity.com) have software tools to analyze text information and to provide all sorts of statistics. An analysis of Twitter feeds on the iPad just after the launch revealed that 87% of all posts on the iPad leaned towards purchasing while 13% leaned towards not purchasing. Further, 26% of all posts complained that the iPad did not replace iPhone functionality.

Accessing Secondary Data

Many of the sources of secondary data we have just discussed can be very easily accessed by means of *search engines*. Search engines provide access to many sources of secondary information. Both generalist search engines (such as Google, Bing, or Yahoo) and specialist databases (see the Web Appendix → Chap. 4) have links to vast amounts of secondary data. Generalist search engines are

regularly updated, their search results depend on what other people are searching for, and how websites are interlinked. Furthermore, they integrate data from different sources, including universities, news websites, and governments. However, undertaking correct searches in generalist search engines requires careful thought. For example, the word order is important (put key words first) and operators may need to be added (such as +, −, and ~) to restrict searches. In Box 4.2, we discuss some basics of searching the Web using the search engine Google.

Box 4.2 Searching for secondary data using Google

Google has an easy to use interface but if you use the standard search box you may not find the secondary data you are looking for. So, how does one find secondary data?

- You could use Google Scholar (http://scholar.google.com) if you are looking for scholarly information such as that found in academic journals. While you can *search* for information from anywhere, it can usually only be accessed if you have an organizational, university, or library password.
- By using Google Books (http://books.google.com/books), you can enter several keywords to easily search within a very large catalogue of digital books. Google clearly indicates in which books the search results are found and also on which pages the keywords occur.
- Under *advanced search* on the Google homepage, you can command Google to only return searches from Excel documents by selecting *Microsoft Excel* under *file type*. Since data are often stored in spreadsheets, this is a good way to search for data. Under advanced search, you can also command Google to return searches from universities only by typing in.*edu* in *Search Within Site or Domain*.
- If you want to see news from some time ago to, for example, see how the press received a new product launch, you can use Google News Archive Search (http://news.google.com/archivesearch).
- Try using operators. Operators are signs that you use to restrict your research. For example, putting a minus symbol (–) (without a space) before a search word *excludes* this word from your findings. Putting a sequence of words or an entire sentence in quotation marks (e.g., "a concise guide to market research") indicates that Google should search for exactly these elements.
- You can use a dedicated search tool to find secondary data such as the *Internet Crossroads in Social Science Data* (http://www.disc.wisc.edu/newcrossroads/index.asp). These dedicated search tools and lists often work well if you are looking for specialized datasets.

Primary Data

Primary data are gathered for a specific research project or task. This distinguishes primary data from secondary data gathered previously for another purpose. Primary data can be quantitative or qualitative data. Quantitative primary data are mostly gathered through surveys and experiments. Most qualitative primary data are collected in the form of interviews, focus groups, observational studies, projective techniques, and test markets. We provide an overview of various types of quantitative and qualitative primary data in Fig. 4.2. Next, we discuss how to set up surveys in detail. Since surveys are the main means of collecting quantitative primary data, we discuss the process of undertaking survey research in enough detail to allow you to set up your own survey-based research project (Table 4.2). We also discuss some aspects of experimental research. Subsequently, we provide an overview of different types of qualitative research.

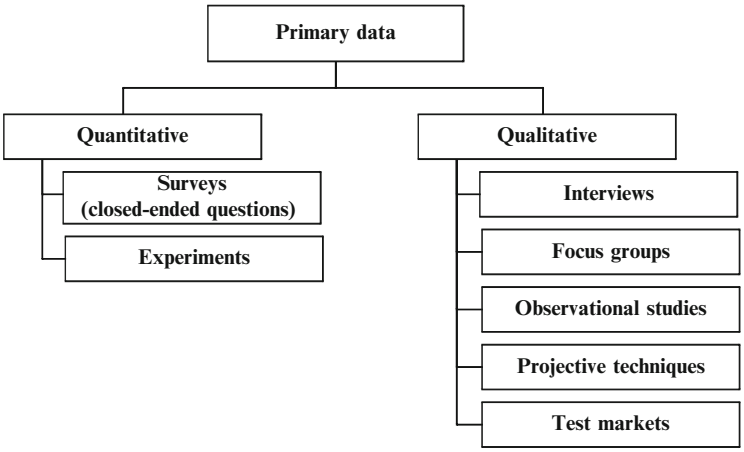

Fig. 4.2 Quantitative and qualitative primary data

Collecting Quantitative Data: Designing Questionnaires

There is little doubt that questionnaires are higly important in market research. While it may seem easy to create a questionnaire (just ask what you want to know, right?), there are many issues that could turn good intentions into bad results. In this section, we will discuss the key design choices to produce good surveys. A good survey requires at least six steps. First, set the goal of the survey. Next, determine the type of questionnaire and method of administration. Thereafter, decide on the questions and their formulation, and conclude by pre-testing and administering the questionnaire. We show these steps in Fig. 4.3.

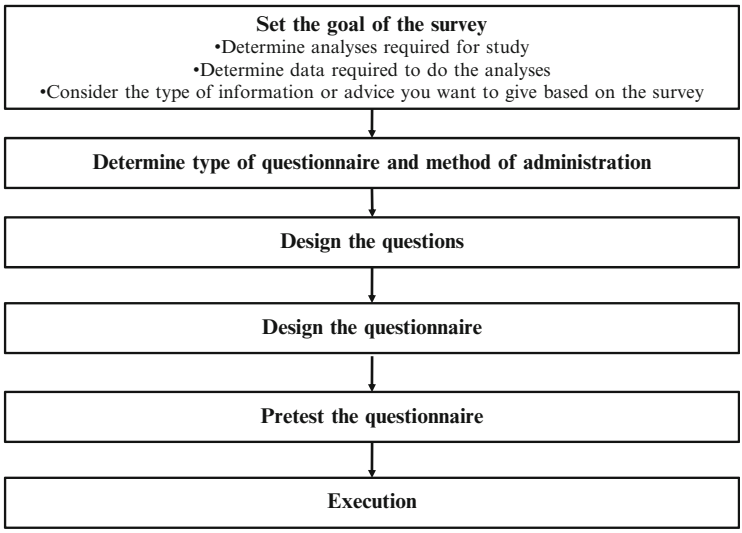

Fig. 4.3 Steps in designing questionnaires

Set the Goal of the Survey

Before you start designing the questionnaire, it is vital to consider the goal of the survey. Is it to collect quantitative data on the background of customers, to assess customer satisfaction, or do you want to understand why and how customers complain? These different goals influence the type of questions asked (such as open-ended or closed-ended questions), the method of administration (e.g., mail or the Web), and other design issues discussed below. We discuss three sub-aspects that are important to consider when designing surveys.

First, it is important to consider the analyses required for the study. For example, if a study's goal is to determine market segments, cluster analysis is the technique most likely to be used (cluster analysis is discussed in Chap. 9). Similarly, if the study's goal is to develop a way of systematically measuring customer satisfaction, factor analysis will most likely be used (see Chap. 8).

A second step is to consider what types of data these analyses require. Cluster analysis, for example, often requires equidistant data, meaning that we need to use a type of questionnaire that can produce these data. Conducting factor analysis, on the other hand, usually requires data that include different, but related, questions. If we use factor analysis to distinguish between the different aspects of consumer satisfaction, we need to design a survey that allows us to conduct factor analysis.

A third point to consider is the information or advice you want to give based on the study. Imagine you are asked to provide help to reach an understanding of waiting times for check-in at an airport. If the specific question is to understand how many minutes travelers are willing to wait before becoming dissatisfied, you should

be able to provide answers to how much travelers' satisfaction decreases as the waiting time increases. If, on the other hand, the specific question is to understand how people perceive waiting time (short or long), your questions should focus on how travelers perceive waiting time and, perhaps, what influences their perception. Thus, the information or advice you want to provide influences the questions that you should ask in a survey.

Determine the Type of Questionnaire and Method of Administration

After determining the goal of the survey, we need to decide on what type of questionnaire we should use and how it should be administered.

There are four different ways to administer a survey: face-to-face interviews, telephone interviews, Web surveys, and mail surveys. In some cases, researchers combine different ways of administering surveys. This is called a *mixed mode*.

Face-to-face interviews (or personal interviews) can obtain high response rates, since engagement with the respondents are maximized, thereby collecting rich information (visual expressions, etc.). Moreover, since people find it hard to walk away from interviews, it is possible to collect answers to a reasonably lengthy set of questions. For this reason, face-to-face interviews can support long surveys. It is also the best type of data collection for open-ended responses. In situations where the respondent is initially unknown, this may be the only feasible data collection type. Consequently, face-to-face interviews seem highly preferable but they are also the most costly per respondent. This is less of a concern for small samples (where face-to-face interviewing could be the most efficient). Other issues with face-to-face interviewing include the possibility of interviewer bias, respondent bias to sensitive items, as well as slow data collection time. Typically, researchers use face-to-face interviewing when we require the in-depth exploration of opinions. Such interviewing may also help if systematic drop out is a key concern. For example, if we collect data from executives around the globe, using methods other than face-to-face interviewing may lead to excessive non-response in countries such as Russia or China. A term that is frequently used in the context of face-to-face interviewing is CAPI, which is an abbreviation of Computer-Assisted Personal Interviews. CAPI involves using computers during the interviewing process to, for example, route the interviewer through a series of questions or to enter responses directly.

Telephone interviewing allows one to collect data quickly. It also supports open-ended responses, though not as well as face-to-face interviewing. Moreover, there is only moderate control of interviewer bias, since interviewers follow predetermined protocols, and there is strong control of the respondent's interactions with others during the interview. Telephone interviewing can be a good compromise between the low cost of mail and the richness of face-to-face survey research. Similar to CAPI, CATI refers to Computer-Assisted Telephone Interviews. Telephone surveys were dominant in the 1990s but since the 2000s, people have increasingly dropped their landlines, making access to respondents harder. The use of mobile phones has, however, increased rapidly and many countries have mobile phone adoption rates

that are higher than landline adoption has ever been (especially in African countries and India). This has caused market researchers to be increasingly interested in using mobile phones for survey purposes. The cost of calling mobile phones is still higher than calling landlines, but the cost involved in calling mobile phones is decreasing. Can market researchers switch to calling mobile phones without problems? Research suggests not. In many countries, users of mobile phones differ from the general population of a country in that they are younger, more educated, and represent a smaller household size. Moreover, the process of surveying through mobile phones is different from using landlines. For example, the likelihood of full completion of surveys is higher for mobile calling, and completion takes around 10% longer (Vincente et al. 2008). Researchers should be aware that calling to mobile phones differs from calling to landlines and that those who use mobile phones are unlikely to represent the general population of a country.

Web surveys (sometimes referred to as CAWI, or Computer-Assisted Web Interviews) are often the least expensive to administer and can be fast in terms of data collection, particularly since they can be set up very quickly. We can administer Web surveys to very large populations, even internationally, as the marginal cost of administering additional Web surveys is relatively low beyond the fixed cost of setting up the survey. Many firms specializing in carrying out Web surveys will ask USD 0.30 (or more) for processing an additional respondent, which is substantially lower than the cost of telephone interviews, face-to-face interviews or mail surveys. Web surveys also support complex survey designs with elaborate branching and skip patterns that depend on the response. For example, through Web surveys we can create different surveys for different types of products and route respondents. In addition, Web surveys can be created to automatically skip questions if they do not apply. For example, if a respondent has no experience using Apple's iPad, we can create surveys that do not ask questions about this product. The central drawback of Web surveys is the difficulty of drawing random samples, since Web access is known to be biased by income, race, gender, and age. Some firms, like Toluna (http://www.toluna.com) and Research Now (http://www.researchnow.co.uk), provide representative panels that can be accessed through Web surveys. An issue with Web surveys is that they impose almost as high a burden on the respondents as mail surveys do. This makes administering long Web surveys difficult. Moreover, open-ended questions tend to be problematic in that few respondents are likely to provide answers, thereby leading to low item response. There is evidence that properly conducted Web surveys lead to data as good as those obtained by mail surveys and that they can provide better results than personal interviews due to the absence of an interviewer and subsequent interviewer bias (Bronner and Kuijlen 2007; Deutskens et al. 2006). In addition, in Web surveys, the respondents are less exposed to evaluation apprehension and are less inclined to respond with socially desirable behavior.[2] Web surveys are also used when a quick "straw poll" is needed on a subject.

[2]For a comparison between CASI, CAPI and CATI with respect to differences in response behavior, see Bronner and Kuijlen (2007).

It is important to distinguish between true Web-based surveys used for collecting information on which marketing decisions will be based and polls or very short surveys on websites that are used to increase interactivity. These polls/short surveys are used to attract and keep people interested in websites and are thus not part of market research. For example, the USA Today (http://www.usatoday.com), an American newspaper, regularly publishes short polls on their main website.

Mail surveys are paper-based surveys sent out to respondents. They are a more expensive type of survey research and are best used for sensitive items. As no interviewer is present, there is no interviewer bias. However, mail surveys are a poor choice for complex survey designs, such as when respondents need to skip a large number of questions depending on previously asked questions, as this means that the respondent bears the burden of having to correctly interpret the survey. Open-ended items are also problematic in that few people are likely to provide answers to open-ended questions if the survey is administered on paper. Other problems include a lack of control over the environment in which the respondent fills out the survey and that mail surveys take longer than telephone or Web surveys. However, in some situations, mail surveys are the only way to gather data. For example, while executives rarely respond to Web-based surveys, they are more likely to respond to paper-based surveys. Moreover, if the participants cannot easily access the Web (such as employees working in supermarkets, cashiers, etc.), handing out paper surveys is likely to be more successful.

Mixed-mode approaches are increasingly used by market researchers. An example of a mixed-mode survey is when potential respondents are first approached by phone and then asked to participate and confirm their email addresses, after which they are given access to a Web survey. Mixed-mode approaches could also be used in cases where people are first sent a paper survey and are then called if they fail to respond to the survey.

Mixed-mode approaches may help because they signal that the survey is important. They may also help response rates as people who are more visually oriented prefer mail and Web surveys, whereas those who are aurally oriented prefer telephone surveys. By providing different modes, people can use the mode they most prefer. A downside of mixed-mode surveys is that they are expensive and require a detailed address list (including a telephone number and matching email address). The key issue with mixed-mode surveys is the possibility of systematic response issues. For example, when filling out mail surveys, respondents have more time than when providing answers by telephone. If respondents need more time to think about their answers, the responses obtained through mail surveys may differ systematically from those obtained through telephone surveying.

Design the Questions

Designing questions (items) for a survey, whether it is for an interview, the Web, or mail, requires a great deal of thought. Take, for example, the following survey item (Fig. 4.4):

	Completely disagree	Disagree	Neutral	Complete agree
Generally, I am not satisfied with my iPhone	❑	❑	❑	❑

Fig. 4.4 Example of a survey item

It is unlikely that people are able to give meaningful answers to such a question. First, using a negation ("not") in sentences makes questions hard to understand. Second, the reader may not have an iPhone or perhaps not even know what it is. Third, the answer categories are unequally spaced. These issues are likely to create difficulties in understanding and answering questions and may cause validity and reliability issues.

Rules for Question Design

When designing survey questions, as a first rule, ask yourself whether everyone will be able to answer each question asked. If the question is, for example, about the quality of train transport and the respondent always travels by car, his or her answers will be meaningless. However, the framing of questions is important since, for example, questions about why that particular respondent does not use the train can lead to meaningful answers.

In addition, you should check whether respondents are able to construct or recall an answer. If you require details that possibly occurred a long time ago (e.g., what information did the real estate agent provide when you bought/rented your current house?), respondents may "make up" an answer, which could lead to validity and reliability issues.

As a third rule, assess if respondents will be willing to fill out questions. If questions are considered sensitive (e.g., sexuality, money, etc.), respondents may consciously adjust their own answers (e.g., by reporting higher or lower incomes than are actually true) or not be willing to answer at all. You have to determine whether these questions are necessary to attain the research objective. If they are not, omit them from the survey. What comprises a sensitive question is subjective and differs across cultures, age categories, and other variables. Use your common sense and, if necessary, expert judgment to decide whether the questions are appropriate. In addition, make sure you pre-test the survey and ask those participants whether they were reluctant to provide certain answers. In some cases, the reformulation of the question can circumnavigate this issue. For example, instead of directly asking about a respondent's disposable income, you can provide various answering categories, which usually increase willingness to answer this question. Another issue that may make respondents reluctant to answer questions is a

survey's length. Many people are willing to provide answers to a short question but are reluctant to even start with a lengthy survey. As the length of the survey increases, the respondent's willingness and ability to complete it decrease.

In addition to these three general rules, there are also a few specific rules that deal with how to write particular questions. One of those is the choice between open-ended and closed-ended questions. Open-ended questions provide little or no structure for respondents' answers. Generally, the researcher asks a question and the respondent writes down his or her answer in a box. Open-ended questions (also called verbatim items in the market research world) are flexible and allow explanation but a drawback is that respondents may feel reluctant to provide such detailed information. In addition, their interpretation requires substantial coding. This coding issue arises when respondents provide many different answers (such as "sometimes," "maybe," "occasionally," or "once in a while") and the researcher has to divide these into categories (such as very infrequently, infrequently, frequently, and very frequently) for further statistical analysis. This coding is very time-consuming, subjective, and difficult. Closed-ended questions, on the other hand, provide a few categories from which the respondent can choose by ticking an appropriate answer. When comparing open-ended and closed-ended questions, open-ended questions usually have much lower response rates.

Types of Scales

When using closed-ended questions, an answer scale has to be determined. In its simplest form, a survey could use just two answer categories (yes/no). Multiple categories (such as, "completely disagree," "disagree," "neutral," "agree," "completely agree") are used more frequently to allow for more nuances. The type of scaling where all categories are named and respondents indicate the degree to which they agree is called a *Likert scale*. Likert scales used by academics commonly have 5-point and 7-point answer categories. A study analyzing 259 academic marketing studies suggests that 5-point (24.2%) and 7-point (43.9%) scales are the most common (Peterson 1997). For practical market research, 10-point scales are frequently used.

In determining how many scale categories to use, one has to balance having more variation in responses vs. asking too much of the respondents. There is some evidence that 7-point scales are better than 5-point scales in terms of obtaining more variation in responses. However, scales with a large number of answer categories often confuse respondents because the wording differences between the scale points become trivial. For example, differences between "tend to agree" and "somewhat agree" are subtle and may not be picked up by respondents. Moreover, scales with many answer categories increase a survey's length, and are therefore more difficult to answer.

You could of course also use 4- or 6-point scales (by deleting the neutral choice). If you force the respondent to be positive or negative, you use a forced-choice (Likert) scale since you "force" the respondent to be either positive or negative. This could bias the answers, thereby leading to reliability issues. By providing a "neutral" category choice the respondents are not forced to give a positive

or negative answer. Many respondents feel more comfortable about participating in a survey when offered free-choice scales. In any case, provide descriptions to all answer categories (such as agree or neutral) to facilitate answering by the respondents. When designing answer categories, also use scale categories that are exclusive, so that answers of questions do not overlap (e.g., age categories 0–4, 5–10 etc.).

A related choice is to include an "undecided" category in the scaling. This choice also plays a role for other scale types and we discuss this in Box 4.3.

Box 4.3 Should we use an undecided category?

Using an undecided category allows the researcher to distinguish between those respondents who have a clear opinion and those who do not. Moreover, it may make answering the survey slightly easier for the respondent. While these are good reasons for including this category, the drawback is that we then have missing observations. If a large number of respondents choose not to answer, this will substantially reduce the number of surveys that can be used for analysis. Generally, when designing surveys, you should include an "undecided" or "don't know" category as answers to questions that the respondent might genuinely not know, for example, when factual questions are asked. For other types of questions (such as on attitudes or preferences) the "undecided" or "don't know" category should not be included, as we are interested in the respondents' perceptions regardless of their knowledge of the subject matter.

Moreover, when designing surveys, you need to ensure that the scaling is balanced. A *balanced scale* has an equal number of positive and negative scale categories. For example, in a 5-point Likert scale, we have two negative categories (completely disagree and disagree); a neutral option, and two positive categories (agree and completely agree). Besides this, the wording in a balanced scale should reflect equal distances between the scale items. A caveat is that some constructs cannot take on negative values. For example, one can have some trust in a company or very little trust, but negative trust is highly unlikely. If a scale item cannot be negative, you will have to resort to an unbalanced scale in which the endpoints of the scales are unlikely to be exact opposites.

The *semantic differential scale* uses an opposing pair of words (young-old, masculine-feminine) and the respondent can indicate to what extent he or she agrees with that word. These scales are widely used by market researchers. Like with Likert scales, five or seven answer categories are commonly used. We provide an example of the semantic differential scale in Fig. 4.5 in which a respondent marked his or her perception of two mobile phone brands across four semantic pairs.[3] The answers provided by the respondent are subsequently linked, using lines

[3]The categories stem from Aaker's (1997) brand personality scale which describes brands in terms of human characteristics and which is commonly applied in marketing research and practice.

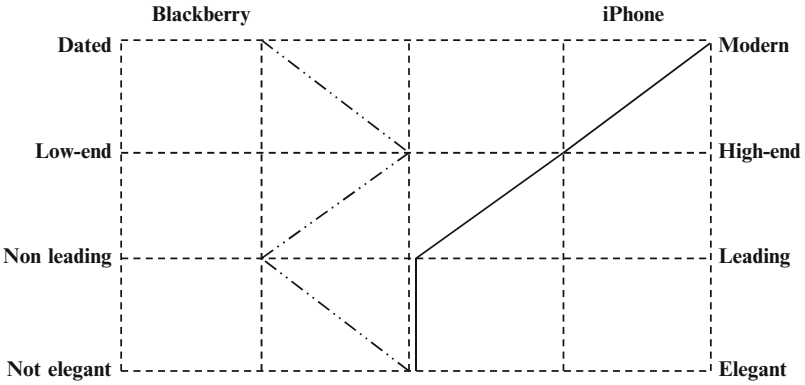

Fig. 4.5 Example of a four-point semantic differential scale

as shown in Fig. 4.3. Sometimes a scaling with an infinite number of answer categories is used (without providing answer categories). This seems very precise because the respondent can tick any answer on the scale. However, in practice these are imprecise because respondents do not, for example, know where along the line "untrustworthy" falls. Another drawback of an infinite number of answer categories is that entering and analyzing the responses are time-consuming because it involves measuring the distance from one side of the scale to the answer ticked by the respondent. We provide two examples of such a semantic differential scale in the Web Appendix (☜ Web Appendix→Chap. 4). The advantages of semantic differential scales include their ability to profile respondents or objects (such as products or companies) in a simple way.

Rank order scales are a unique type of scale, as they force respondents to compare alternatives. In its basic form, a rank order scale (see Fig. 4.6 for an example) asks the respondent to indicate which alternative is the most important, which one second most important, etc. As a consequence, respondents need to balance their answers instead of merely stating that everything is important. In a more complicated form, rank order scales ask the respondent to allocate a certain total number of points (often 100) over a number of alternatives. This is called the *constant sum scale*. Constant sum scales work well when a small number of answer categories is used, such as four or five. Generally, respondents find constant scales that have six or seven answer categories somewhat challenging while constant

Rank the reasons for buying an Apple iPhone from most to least applicable:

___ To listen to music
___ To browse the Web
___ To take photos
___ To make/receive phone calls
___ To send/receive emails

Fig. 4.6 Example of a rank order scale

Table 4.2 A summary of some of the key choices when designing questions

Choice	Actions
Can all the respondents answer the question asked?	Ensure that all items are answerable by all potential respondents. If this is not the case, ask screener questions to direct the respondents. If the respondents cannot answer questions, they should be able to skip those questions.
Can the respondents construct/recall answers?	If the answer is no, you should use other methods to obtain information (e.g., secondary data or observations). Moreover, you may want to ask the respondents about major aspects that occurred before zooming in on details to help them recall answers.
Do the respondents want to fill out each question?	If the questions concern "sensitive" subjects, check whether they can be omitted. If not, stress the confidentiality of the answers and mention why these answers are useful for the researcher, the respondent, or society before introducing the questions.
Should you use open-ended or closed-ended questions?	Keep the subsequent coding in mind. If easy coding is possible beforehand, design a set of exhaustive answer categories. Also, remember that open-ended scale items have a much lower response rate than closed-ended items.
What scaling categories should you use (closed-ended questions only)	Use Likert scales, the semantic differential scale, or rank order scales.
Should you use a balanced scale?	Check the wording and number of items. There should be an exact number of positive and negative scale items. The words at the ends of the scale should be exact opposites.
Should you want to use a forced-choice or open-choice scale?	Respondents feel most comfortable with the open-choice scale. However, when an even number of scale categories is used, the forced-choice scale is most common since the scaling can become uneven if it isn't.
Should you include an "undecided"/"don't know" category?	Only for questions that the respondent might genuinely not know, should a "don't know" category be included. If included, place this at the end of the scale.

scales that have eight or more categories are very difficult to answer. The latter are thus best avoided.

In addition to these types of scaling, there are other types, such as graphic rating scales, which use pictures to indicate categories, and the MaxDiff scale in which respondents indicate the most and least applicable items. We introduce the MaxDiff scale as a Web Appendix (→ Chap. 4). Table 4.2 provides a summary of some key changes when designing questions.

Do's and Don'ts in Designing Survey Questions

When designing survey questions, there are a number of do's and don'ts. Always use simple words and avoid using jargon or slang if not all the respondents are likely to understand it. There is good evidence that short sentences work better than longer sentences because they are easier to understand (Holbrook et al. 2006).

Thus, try to keep survey questions short and simple. Moreover, avoid using the word *not* or *no* where possible. This is particularly important when other words in the same sentence are negative, such as "unable," or "unhelpful" because generally sentences with two negatives (called a double negative) are hard to understand. For example, a question such as "I do not use the email function in my iPhone because it is unintuitive" is quite hard to understand.

Also avoid the use of "vague" quantifiers such as "frequent" or "occasionally" (Dillman 2007). Vague quantifiers make it difficult for respondents to answer questions (what exactly is meant by "occasionally"?). They also make comparing responses difficult. After all, what one person considers "occasionally," may be "frequent" for another. Instead, it is better to use frames that are precise ("once a week").

Never suggest an answer, for example, by asking "Company X has done very well, how do you rate company X?" In addition, avoid double-barreled questions at all costs, in which a respondent can agree with one part of the question but not the other, or cannot answer without accepting a particular assumption. Examples of double-barreled questions include: "Is the sales personnel polite and responsive?" and "In general, are you satisfied with the products and services of company X?"

Lastly, when you run simultaneous surveys in different countries, make use of professional translators as translation is a complex process. Functionally translating one language into another is quite easy and many websites, such as Google translate (http://translate.google.com) can do this. However, translating surveys requires preserving conceptual equivalence of whole sentences and paragraphs; current software applications and websites cannot ensure this. In addition, cultural differences may require changes to the entire instrument format or procedure. A technique to establish conceptual equivalence across languages is back-translation. Back-translation requires translating a survey instrument into another language after which the translated survey instrument is translated into the original language by another translator. After the back-translation, the original and back-translated instruments are compared and points of divergence are noted. The translation is then corrected to more accurately reflect the intent of the wording in the original language.

In Fig. 4.7, we provide a few examples of poorly designed survey questions followed by better-worded equivalents. These questions relate to how satisfied iPhone users are with performance, reliability, and after-service.

Design the Questionnaire

After determining the individual questions, the market researcher has to integrate these, together with other elements, to create the questionnaire. This involves including an explanation, choosing the order of the questions, and designing the layout and format.

At the beginning of each questionnaire, the importance and goal are usually described to stress that the results will be treated confidentially, and to mention what they will be used for. This is usually followed by an example question (and answer), to demonstrate how the survey should be filled out.

Poor: The question is double-barreled: it asks about performance and reliability

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Completely agree
I am satisfied with the performance and reliability of my Apple iPhone	❑	❑	❑	❑	❑

Better: The question is separated into two questions

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Completely agree
I am satisfied with the performance of my Apple iPhone	❑	❑	❑	❑	❑
I am satisfied with the reliability of my Apple iPhone	❑	❑	❑	❑	❑

Poor: The question cannot be answered by those who have not experienced after-sales service.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Completely agree
I am satisfied with the after-sales service of my Apple iPhone	❑	❑	❑	❑	❑

Better: Question uses branching

	No	Yes
1.1: Did you use Apple's after-sales service for your iPhone?	❑	❑
If you answered yes, please proceed to question 1.2. otherwise, skip question 1.2 and proceed to question 1.3		

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Completely agree
1.2: I am satisfied with the after-sales service provided by Apple for my iPhone	❑	❑	❑	❑	❑

Fig. 4.7 Examples of good and bad practice in designing survey questions

If questions relate to a specific issue, moment, or transaction, you should indicate this clearly. For example, "Please provide answers to the following questions, keeping the purchase of product X in mind". If applicable, you should also point out that your survey is conducted in collaboration with a university, a recognized research institute, or a known charity as this generally increases respondents' willingness to participate. Moreover, do not forget to provide a name and contact details for those participants who have questions or in case technical problems

Poor: Question design will likely cause inflated expectations ("everything is very important")

	Not at all important	Not important	Neutral	Important	Very important
Which of the following iPhone features are most important to you?					
Camera	❑	❑	❑	❑	❑
Music player (iPod)	❑	❑	❑	❑	❑
App store	❑	❑	❑	❑	❑
Web browser (Safari)	❑	❑	❑	❑	❑
Mail client	❑	❑	❑	❑	❑

Better: Use rank order scale

	Rank
Rank the following iPhone features from most to least important. Begin by picking out the feature you think is most important and assign it a number 1. Then find the second most important and assign it a number 2 etc.	
Camera	___
Music player (iPod)	___
App store	___
Web browser (Safari)	___
Mail client	___

Fig. 4.7 (continued)

should arise. Lastly, you should thank the respondents for their time and describe how the questionnaire should be returned (for mail surveys).

The order of questions is usually as follows:

1. Screeners or classification questions come first. These questions determine what parts of the survey a respondent should fill out.
2. Next, insert the key variables of the study. This includes the dependent variables, followed by the independent variables.
3. Use the funnel approach. That is, ask questions that are more general first and then move on to details. This makes answering the questions easier as the order aids recall. Make sure that sensitive questions are put at the very end of this section.
4. Demographics are placed last if they are not part of the screening questions. If you ask demographic questions, always check whether they are relevant with regard to the research goal. In addition, check if these demographics are likely to lead to non-response. Asking about demographics, like income, may result in a substantial number of respondents refusing to answer. If such sensitive demographics are not necessary, omit them from the survey. When asking

about demographics, providing a few response categories instead of open-ended questions can increase the respondent's willingness to answer. For example, you could provide income categories when requesting information on the annual household income. In certain countries, asking about a respondent's demographic characteristics means you have to abide by specific laws, such as the Data Protection Act 1998 in the UK.

If your questionnaire contains several sections (e.g., in the first section you ask about the respondents' buying attitudes and in the following section about their satisfaction with the company's services), you should make the changing context clear to the respondents.

Moreover, the layout and format of the survey need to be considered. For both mail and Web-based surveys, the layout should be concise and should conserve space where possible.

A few final recommendations: Avoid using small and colored fonts, which reduce readability. For mail-based surveys, booklets work well, since they are less costly to send as they can be made to fit into standard envelopes. If this is not possible, single-sided stapled paper can also work. For Web-based surveys, it is good to have a counter to let the respondents know what percentage of the questions they have already filled out. This gives them some indication of how much time they still have to spend on completing the survey. Make sure the layout is simple and follows older and accepted Web standards. This allows respondents with older and/or non-standard browsers or computers to fill out the survey. In addition, take into consideration that many people access Web surveys through mobile phones and tablet computers. Using older and accepted Web standards is likely to cause a minimum number of technical problems for these respondents.

Pretest the Questionnaire

We have already mentioned the importance of pretesting the survey several times. Before any survey is sent out, you should pre-test the questionnaire to enhance its clarity and to ensure the client's acceptance of the survey. Once the questionnaire is in the field, there is no way back! You can pretest questionnaires in two ways. In its simplest form, you can use a few experts (say 3–6) to read the survey, fill it out, and comment on it. Many Web-based survey tools allow researchers to create a pretest version of their survey in which there is a text box for comments behind every question. Experienced market researchers are able to spot most issues right away and should be employed to pretest surveys. If you aim for a very high quality survey, you should also send out a set of preliminary (but proofread) questionnaires to a small sample consisting of 50–100 respondents. The responses (or lack thereof) usually indicate possible problems and preliminary data may be analyzed to determine potential results. Never skip pretesting because of time issues, since you are likely to run into problems later!

An increasingly important aspect of survey research is to induce potential respondents to participate. In addition to Dillman's (2007) recommendations (see Box 4.4), incentives are increasingly used. A simple example of such an incentive is to provide potential respondents with a cash reward. In the US, one-Dollar bills are often used for this purpose. Respondents who participate in (online) research panels often receive points that can be exchanged for products and services. For example, Research Now, a market research company, provides its Canadian panel members with AirMiles that can be exchanged for free flights, amongst others. A special type of incentive is to indicate that, for every returned survey, money will be donated to a charity. The ESOMAR, the world organization for market and social research (see Chap. 10), suggests that incentives for interviews or surveys should "be kept to a minimum level proportionate to the amount of their time involved, and should not be more than the normal hourly fee charged by that person for their professional consultancy or advice".

Another incentive is to give the participants a chance to win a product or service. For example, you could randomly give away iPods or holidays to a number of participants. By providing them with a chance to win, the participants need to disclose their name and address so that they can be reached. While this is not part of the research, some respondents may feel uncomfortable doing so, which could potentially reduce response rates.

Finally, a type of incentive that may help participation (particularly in professional settings) is to report the findings back to the participants. This can be done by providing a general report of the study and its findings, or by providing a customized report detailing the participant's responses and comparing them with all the

Box 4.4 Dillman's (2007) recommendations

It is becoming increasingly difficult to get people to fill out surveys. This may be due to over surveying, dishonest firms that disguise sales as research, and a lack of time. In his book, Mail and Internet Surveys, Dillman (2007) discusses four steps to increase response rates:

1. Send out a pre-notice letter indicating the importance of the study and announcing that a survey will be sent out shortly.
2. Send out the survey with a sponsor letter again indicating the importance of the study.
3. Follow up after 3–4 weeks with both a thank you note (for those who responded) and a new survey plus a reminder (for those who did not respond).
4. Call or email those who have not responded still and send out a thank you note to those who replied in the second round.

Further, Dillman (2007) points out that names and addresses should be error free. Furthermore, he recommends, using a respondent-friendly questionnaire in the form of a booklet, providing return envelopes, and personalizing correspondence.

other responses. Obviously, anonymity needs to be assured so that the participants cannot compare their answers with those of other individual responses.

Collecting Quantitative Data: Basic Experimental Research

In Chap. 2, we discussed causal research and briefly introduced experiments as a means of conducting research. The goal of designing experiments is to control for as much as possible and to avoid other variables' unintended influences. Experiments are typically conducted by manipulating one or a few variables at a time. For example, we can change the price of a product, the type of product, or the package size to determine whether these changes affect important outcomes such as attitudes, satisfaction, or intentions. Often, simple field observations cannot establish these relationships.

Imagine a company were to introduce a new type of soft drink aimed at health-conscious consumers. If the product were to fail, the managers would probably conclude that consumers did not like the product. However, many (often unobserved) variables, such as price cuts by competitors, changing health concerns, or a lack of availability, can also influence new products' success.

Experiments attempt to isolate how one particular change affects an outcome. The outcome is called the dependent variable (we may have several) and the several independent variable(s) explain the outcome(s). The independent variables are often *stimuli* or *treatments* manipulated in the experiment by providing the participants with different situations. A simple form of a treatment could take the shape of a yes/no manipulation in which, for example, respondents are shown an advertisement with or without humor. The number of treatments are the different *factor*s or *levels* of a variable. If we manipulate price between low, medium, and high, we have three factors. If we manipulate using or not using humor we have two factors. When selecting independent variables, we typically include changeable variables marketers care about related to marketing and design of products and services. Care should be taken not to include too many of these variables in order to keep the experiment manageable. An experiment that includes four manipulations, each of which have three levels, and that includes every possible combination (called a *full factorial design)* would already require conducting $4^3 = 64$ experiments. Large numbers of levels (five or more) will increase the complexity and cost of the research dramatically. *Extraneous variables*, such as the age or income of the participant in the experiment, are not changed as part of the experiment but may be important.

Experimental design refers to the conducted experiment's structure. There are various types of experimental designs. To clearly separate the different experimental designs, researchers have developed the following notation:

O: A formal observation or measurement of the dependent variable. Subscripts such as O_1, O_2, etc, are used to indicate measurements in different points in time.
X: Test participants' exposure to an experimental manipulation or treatment.
R: Random assignment of participants. Randomization ensures control over extraneous variables and increases the reliability of the experiment.

If one symbol follows after another it means that the first symbol precedes the next one in time.

The simplest form of experiment is the *one-shot case study*. This type of experiment is structured as follows:

$$X \quad O_1$$

This means we have only one manipulation (e.g., increasing advertising). After the manipulation, we await reactions and then measure the outcome of the manipulation, such as attitude towards a brand. This type of experiment is common but does not tell us if the effect is causal. One reason for this is that we did not measure anything before the manipulation and therefore cannot assess what the relationship between the manipulation and outcome is. Moreover, other explanations, such as a competing brand's negative publicity, are not controlled for. Thus, causality cannot be established with this design.

The simplest type of experiment that allows us to make causal inferences – within certain limits – is the *before-after design* for one group. The notation for this is:

$$O_1 \quad X \quad O_2$$

Thus, we have one measurement before and one after a manipulation. This type of design can be used to determine whether customers find a product's health claim credible before and after seeing an advertisement.

However, the initial measurement O_1 may alert participants that they are being studied, which may bias the post measurement O_2. Likewise, participants may drop out of the experiment, which may threaten the experiment's validity. The key issue with drop out is that the reason for the participant dropping out may be confused with the effect studied. For example, if we study attitudes towards the iPhone as a product, people with a job may have little time and, consequently, refuse to participate. However, since they have a job, they will have a higher income, making their attitudes underrepresented in the study.

A more common approach to understanding causal effects is to use two different groups in an experiment. An important feature that helps come to causal conclusions is if the participants are randomly assigned to two groups. This means that, for any given treatment, every participant has an equal probability of being chosen for one of the two groups. This ensures that participants with different characteristics are spread equally among the treatment(s), which will neutralize extraneous variables' effects. A simple form of this is the *posttest-only control group experiment*. In this type of experiment, we have a single manipulation and two measurements.

Experimental group	(R)	X	O_1
Control group	(R)		O_2

We can use this type of experiment to determine whether a higher service level increases satisfaction. For example, the Omni hotel chain has introduced a new service for selected guests: they can have two pieces of clothing pressed for free. Using a posttest-only experiment, we can determine if such a service change influences guests' satisfaction.

If we want to identify how strong the effect of a manipulation is, we need a more complex (but also more rigorous) setup, called the *before-after experiment with a control group*. The notation of this type of experiment is:

Experimental group	(R)	O_1	X	O_2
Control group	(R)	O_3		O_4

The effect attributed to the experiment is the difference between O_1 and O_2 minus that of O_3 and O_4. That is, the difference between O_1 and O_2 is probably mostly due to the experiment. However, to control for effects that may cause a repeat measurement to differ (the respondents become experienced, bored, etc.), we subtract the difference between O_3 and O_4 from the difference between O_1 and O_2.[4]

In Chap. 6, we discuss how the data resulting from experiments can be analyzed using various tests and ANOVA.

Collecting Qualitative Data: Basic Qualitative Research

Qualitative research is mostly used to gain an understanding of *why* certain things happen or to work on developing measures. Qualitative research leads to the collection of qualitative data as discussed in Chap. 3. One can collect qualitative data by explicitly informing the participants that you are doing research (*directly observed qualitative data*), or you can simple observe the participants' behavior without the participants being explicitly aware of the research goals (*indirectly observed qualitative data*). There are ethical issues associated with conducting research in which the participants are not aware of the research purpose. Always check regulations regarding what is allowed in your context and what not. It is always advisable to brief the participants on their role and the goal of the research after data have been collected. Figure 4.8 shows the most important types of qualitative research and we will discuss these in turn.

The two key forms of directly observed qualitative data are interviews and focus groups. Together, focus groups and interviews comprise most of the conducted qualitative market research. As the terms suggests, interviews are conducted with one participant at a time while focus groups include multiple participants.

[4]To learn more about experimental research and different designs, take a look at Campbell and Stanley (1966) or Cook and Campbell (1979).

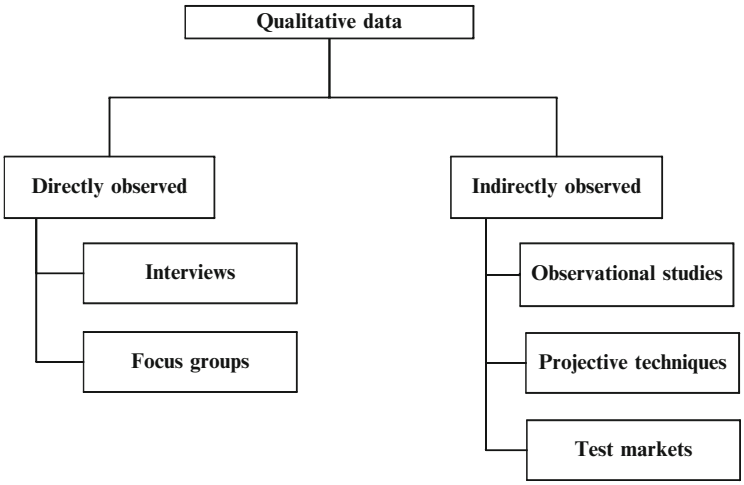

Fig. 4.8 Types of qualitative research

Interviews are qualitative conversations with participants about a specific issue. Often, these participants are consumers but they might also be the decision-makers in a market research study who are interviewed to gain an understanding of their clients' needs. They could also be government or other company representatives. Interviews vary in their level of structure. In their simplest form, interviews are unstructured and the participants talk about a topic in general. This works well if you want to obtain insight into an issue or as an initial step in a research process. Interviews can also be fully structured, meaning all questions and possible answer categories are decided in advance. This leads to the collecting of quantitative data. However, most interviews are semi-structured and contain a series of questions that need to be addressed but that have no specific format as to what the answers should look like. The person interviewed can make additional remarks or discuss somewhat related issues, but is not allowed to wander off too far. In these types of interviews, the interviewer often asks questions like "that's interesting, could you explain?", or "how come…?" to probe further into the issue. In highly structured interviews, the interviewer has a fixed set of questions and often a fixed amount of time allocated to each person's response. The goal of structured interviews is to maximize the comparability of the answers. Consequently, the set-up of the questions and the structure of the answers need to be similar.

Interviews are unique in that they allow for interaction and probing on a one-to-one basis. Interviews also work well when the person interviewed has very little time available and when he or she does not want the information to be shared with the other participants in the study. This is, for example, likely to be the case when you discuss marketing strategy decisions with CEOs. The drawbacks of interviews include the amount of time the researcher needs to spend on the interview itself and traveling (if the interview is conducted face-to-face and not via the telephone), as well as transcribing the interview. When conducting interviews, a set format is

usually followed. First, the interview details are discussed, such as confidentiality issues, the topic of the interview, the structure, and the duration. Moreover, the interviewer should disclose whether the interview is being recorded and inform the interviewee that there is no right or wrong answer, just opinions on the subject. The interviewer should also try to be open and keep eye contact with the interviewee. The interview can be ended by informing the respondent that you have reached the last question and thanking him or her for being helpful.

Interviews are often used (together with other qualitative techniques, such as focus groups) to investigate *means-end* issues in which researchers try to understand what ends consumers try to satisfy through which means (consumption). A means-end approach involves first determining the *attributes* of a product. These are the functional product features, such as the speed a car can reach or its acceleration. Subsequently, we look at the *functional consequences* that follow from the product benefits. This could be driving fast. The *psychosocial consequences*, or personal benefits, are derived from the functional benefits and, in our example, could include an enhanced status or being regarded as successful. Finally, the psychosocial benefits are linked to people's personal *values* or life goals, such as a desire for success or acceptance. Analyzing and identifying the relationships between these steps is called *laddering*.

Focus groups are interviews conducted among a number of respondents at the same time and led by a *moderator*. This moderator leads the interview, structures it, and often plays a central role in later transcribing the interview. Focus groups are usually semi- or highly structured. The group usually comprises between 4 and 6 people to allow for interaction between the participants and to ensure that all the participants can have a say. The duration of a focus group interview varies, but is often between 30 and 90 minutes for focus groups of company employees and between 60 and 120 minutes for consumers. When focus groups are held with company employees, the moderator usually travels to the company and conducts his or her focus group in a reserved room. When consumers are involved, moderators often travel to a market research company or hotel where a conference room is used for the focus group. Market research companies often have special conference rooms with equipment like one-way mirrors, built-in microphones, and video recording devices.

Focus groups usually start with the moderator introducing the topic and discussing the background. Everyone is introduced to establish rapport. Subsequently, the moderator tries to get the members of the focus group to speak to one another, instead of asking the moderator for confirmation. Once the focus group members start discussing topics with one another, the moderator tries to stay in the background while ensuring that the discussions stay on-topic. Afterwards, the participants are briefed and the discussions are transcribed for further analysis. Focus groups have distinct advantages: they are relatively cheap compared to face-to-face interviews, they work well with issues that have important social aspects or require spontaneity, and are also useful for developing new ideas. On the downside, focus groups do not offer the same ability as interviews to probe and run a greater risk of going off-course. Moreover, a few focus group members may dominate the

discussion and, in larger focus groups, "voting" behavior may occur, hindering real discussions and the development of new ideas.

Observational studies are relatively rare but can provide important insights that are unavailable through other market research techniques. Observational techniques shed light on consumers' and employees' behavior and can help answer questions, such as how consumers walk through supermarkets, how they consume and dispose of products, and how employees spend their working day. Observational techniques are not used to understand why people behave in a certain way but rather aim to understand what they are doing. Observational studies work well when people find it difficult to put what they are doing in words, such as when people from different ethnic backgrounds shop for food. Most observational studies use video recording equipment or trained researchers who observe what people do unobtrusively (e.g., through one-way mirrors or by using recording equipment). Recently, researchers have also used computer chips (called RFIDs) to trace consumers' shopping paths within a supermarket. Other types of observational studies include *mystery shopping*, in which a trained researcher is asked to visit a store or restaurant and consume their products/services. For example, McDonalds and Selfridges, a UK retail chain, use mystery shoppers (see Box 4.5 for an MSNBC video on mystery shopping).

Box 4.5 Using mystery shopping to improve customer service

http://tiny.cc/myst_msnbc

Sometimes observational studies are conducted in households with researchers participating in a household to see how people buy, consume, and dispose of products/services. The type of studies in which the researcher is a participant is called an *ethnography*. An example of an ethnography is Volkswagen's Moonraker project in which a number of Volkswagen's employees follow American drivers to gain an understanding of how their usage of and preferences for automobiles different from those of drivers in Europe.[5]

[5]See http://www.businessweek.com/autos/autobeat/archives/2006/01/there_have_been.html

Projective techniques work by providing a participant with a stimulus and gauging his or her response. Although participants in projective techniques know that they are participating in a market research study, they may not be aware of the specific purpose of the research. The stimuli provided in projective techniques are ambiguous and require a response from the participants. A key form of projective techniques is *sentence completion*, for example:

An iPhone user is someone who: .....
The Apple brand makes me think of: .....
iPhones are most liked by: .....

In this example, the respondents are asked to express their feelings, ideas, and opinions in a free format.

Projective techniques' advantage is that they allow for responses when people are unlikely to respond if they were to know the exact purpose of the study. Thus, projective techniques can overcome self-censoring and allow expression and fantasy. In addition, they can change a participant's perspective. Think of the previous example. If the participant is a user of the Apple iPhone, the sentence completion example asks how he or she thinks other people see him or her, not what he or she thinks of the Apple iPhone. A drawback is that projective techniques require interpretation and coding of responses, which can be difficult.

Test markets are a costly type of market research in which a company introduces a new product or service in a specific geographic market. Sometimes, test markets are also used to see how consumers react to different marketing mix instruments, such as changes in pricing, distribution, or advertising and communication. Thus, test marketing is about changing the product or service offering in a real market and gauging consumers' reactions. Test markets are expensive and difficult to conduct. Some common test markets include Hassloch in Germany as well as Indianapolis and Nashville in the USA.

Questions

1. What is the difference between primary and secondary data? Can primary data become secondary data?
2. Please provide a few examples of secondary data sources that you found through the Internet.
3. Imagine you are asked to understand what consumer characteristics make them likely to buy a Honda Insight hybrid car (see http://automobiles.honda.com/insight-hybrid). How would you collect the data? Would you start with secondary data or do you directly start collecting primary data? Do you think it is appropriate to collect qualitative data? If so, at what stage of the process?
4. If you were to set up an experiment to ascertain what type of package (new or existing) current customers prefer, what type of experiment would you choose? Please discuss.

5. What are the different reasons for choosing interviews over focus groups? What choice would you make if you want to understand CEOs' perceptions of the economy and what would seem appropriate when you want to understand how consumers feel about a newly introduced TV program?

Further Readings

http://www.focusgrouptips.com

This website provides a thorough explanation of how to set-up focus groups from planning to reporting the results.

http://www.mysteryshop.org

This website discusses the mystery shopping industry in Asia, Europe, North America, and South America.

Dillman DA, Smyth JD, Christian LM (2009) Internet, mail, and mixed-mode surveys: the tailored design method. Wiley, Hoboken, NJ

This book gives an excellent overview on how to set-up questionnaires and how to execute them. Specifically mixed-mode surveys and web surveys are paid significant attention.

Lietz P (2010) Current state of the art in questionnaire design: a review of the literature. Int J Mark Res 52(2):249–272

This article reviews survey design choices from an academic perspective.

Veludo-de-Oliveira TM, Ikeda AA, Campomar MC (2006) Laddering in the practice of marketing research: barriers and solutions. Qual Mark Res: An Int J 9(3):297–306

This article provides an overview of laddering, the various forms of laddering, and biases that may result and how these should be overcome.

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