Stage 1
Problem definition

Stage 2
Research approach developed

Stage 3
Research design developed

Stage 4
Fieldwork or data collection

Stage 5
Data preparation and analysis

Stage 6
Report preparation and presentation

Survey and quantitative observation techniques

Objectives

After reading this chapter, you should be able to:

1 discuss and classify survey techniques available to marketing researchers, and describe various survey techniques;

2 identify the criteria for evaluating survey techniques, compare the different techniques and evaluate which is the best for a particular research project;

3 explain and classify the different quantitative observation techniques;

4 identify the criteria for evaluating observation techniques, compare the different techniques, and evaluate which are suited for a particular research project;

5 describe the relative advantages and disadvantages of observation techniques and compare them with survey techniques;

6 discuss the considerations involved in implementing surveys and observation techniques in an international setting;

7 understand the ethical issues involved in conducting survey and observational research.

Know exactly what you want to measure – and then select a survey or observation technique that creates cooperative respondents, willing to think and be honest.

Overview

In this chapter, we focus on the major techniques employed in descriptive research designs: surveys and quantitative observation. As explained in Chapter 3, descriptive research has as its prime objective the description of something, usually consumer or market characteristics. Survey and quantitative observation techniques are vital techniques in descriptive research designs. Survey techniques may be classified by mode of administration as traditional telephone interviews, computer-assisted telephone interviews, personal in-home or office interviews, street interviews, computer-assisted personal interviews, postal surveys, electronic surveys and mail panels. We describe each of these techniques and present a comparative evaluation of all the survey techniques. Then we consider the major observational techniques: personal observation including mystery shopping research, electronic observation, audit, content analysis and trace analysis. The relative advantages and disadvantages of observation over survey techniques and the considerations involved in conducting survey and observation research when researching international markets are also discussed. Several ethical issues that arise in survey research and observation techniques are identified.

To begin our discussion, we present an example of how the survey process can benefit from technological advances. Computer-assisted personal interviewing can make the interview process interesting for respondents and at the same time elicit more knowledge from them to support an array of marketing decisions.

More muscle from microchips[1]

Multimedia CAPI (Computer Assisted Personal Interviewing) builds on the technology used in conventional CAPI research but uses multimedia notebook computers, not only to collect data, but also to present planned marketing campaigns to respondents in their homes. Clips from TV advertisements can be shown on the screen and followed up with on-screen questionnaires, which the respondent answers by clicking on the relevant box or, where an opinion is being sought, by speaking into the notebook's microphone. The spoken answers are saved and can be downloaded on to an audiotape, so that other researchers can listen to them and analyse them at a later date.

The system is not limited to showing TV ad clips. Respondents can be shown different packaging treatments, or a piece of the client company's marketing communications, alongside competitors' material. Notebook computers can also help interviewers overcome language barriers. The questionnaire can be translated beforehand into any language and played back to the respondents. ■

Survey techniques

Survey techniques
Techniques based upon the use of structured questionnaires given to a sample of a population.

Survey techniques are based upon the use of structured questionnaires given to a sample of a population. Respondents may be asked a variety of questions regarding their behaviour, intentions, attitudes, awareness, motivations, and demographic and lifestyle characteristics. These questions may be asked verbally, in writing or via a computer, and the responses may be obtained in any of these forms. 'Structured' here refers to the degree of standardisation imposed on the data collection process. In **structured data collection**, a formal questionnaire is prepared and the questions are asked in a prearranged order; thus, the process is also direct. Whether research is classified as direct or indirect is based on whether the true purpose is known to the respondents. As explained in Chapter 7, a direct approach is undisguised in that the purpose of the project is disclosed to the respondents or is otherwise obvious to them from the questions asked.

Structured data collection
Use of a formal questionnaire that presents questions in a prearranged order.

In a typical questionnaire, most questions are fixed-response alternative questions that require the respondent to select from a predetermined set of responses. Consider, for example, the following question, designed to measure a dimension of students' attitudes towards the way they are assessed in marketing research classes:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I prefer written examinations compared with continual assessment	☐	☐	☐	☐	☐

The survey method has several advantages. First, the questionnaire is simple to administer. Second, the data obtained are consistent because the responses are limited to the alternatives stated. The use of fixed-response questions reduces the variability in the results that may be caused by differences in interviewers. Finally, coding, analysis and interpretation of data are relatively simple.

Disadvantages are that respondents may be unable or unwilling to provide the desired information. For example, consider questions about motivational factors. Respondents may not be consciously aware of their motives for choosing specific brands or shopping at particular stores. Therefore, they may be unable to provide accurate answers to questions about their motives. Respondents may be unwilling to respond if the information requested is sensitive or personal. In addition, structured questions and **fixed-response alternative questions** may result in loss of validity for certain types of data such as beliefs and feelings. Finally, wording questions properly is not easy (see Chapter 13 on questionnaire design). In other words, the survey imposes the language and logic of the researcher on to questionnaire respondents. Given this core characteristic of survey techniques, great care must be taken to ensure that the language and logic used in questionnaires are meaningful and valid to potential respondents. Despite the above disadvantages, the survey approach is by far the most common method of primary data collection in marketing research.

Survey questionnaires may be administered in three major modes: (1) telephone interviews, (2) personal interviews, and (3) mail interviews (see Figure 10.1). Telephone interviews may be further classified as traditional telephone interviews and computer-assisted telephone interviews. Personal interviews may be conducted in the home or office, as street interviews, or as computer-assisted personal interviews. The third major method, mail interviews, takes the form of traditional mail surveys, electronic mail surveys or surveys conducted using mail panels. We now describe each method.

Fixed-response alternative questions
Questions that require respondents to choose from a set of predetermined answers.
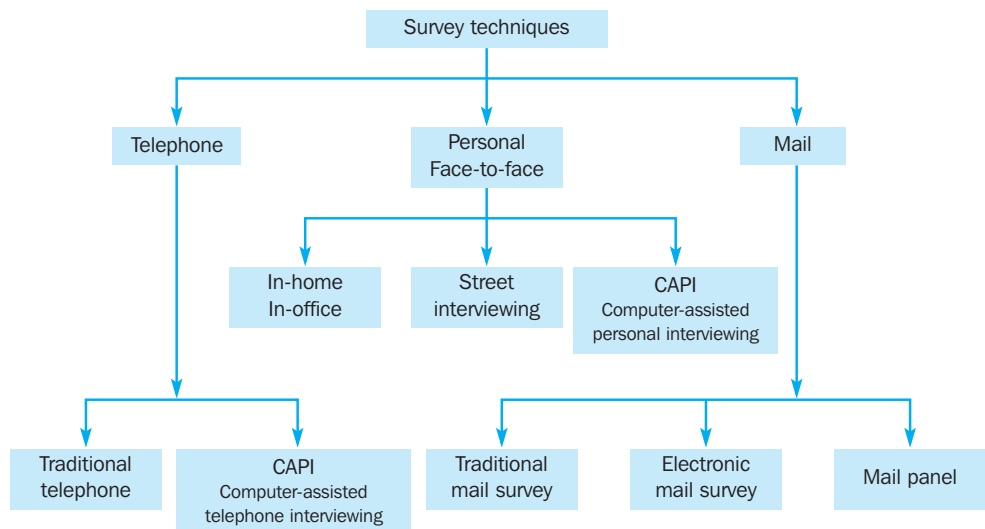

Figure 10.1
A classification of survey techniques

Telephone interviews

As stated earlier, telephone interviews may be categorised as traditional or computer-assisted.

Traditional telephone interviews

Traditional telephone interviews involve phoning a sample of respondents and asking them a series of questions. The interviewer uses a paper questionnaire and records the responses with a pencil. From a central location, a wide geographical area can be covered, including international markets. Given that telephone interviewers cannot give respondents any visual prompts, they have to write down answers to any open-ended questions and may have to flick through the questionnaire to find appropriate questions for a particular respondent (filtering). These interviews tend to be short in duration and have questions with few options as answers. Today, this approach is rarely used in commercial marketing research, the common approach being a computer-assisted telephone interview.

Computer-assisted telephone interviews (CATI)

Computer-assisted telephone interviewing (CATI) uses a computerised questionnaire administered to respondents over the telephone. A computerised questionnaire may be administered using a networked computer or a personal computer. The interviewer sits in front of a terminal and wears a small headset. The terminal replaces a paper and pencil questionnaire, and the headset substitutes for a telephone. Upon command, the computer dials the telephone number to be called. When contact is made, the interviewer reads questions posed on the screen and records the respondent's answers directly into the computer memory bank, ready for immediate analysis. The following example illustrates how the technique has developed over the years. The main benefit of the technique illustrated here is the speed of collecting data and analyses. Speed is of the essence in subjects where respondent attitudes and behaviour can change quickly, an example being toys that parents may wish to buy for their children. One of the most widespread uses of CATI is for political opinion polls.

example

The fans of the phone pump the numbers up [2]

In the 1970s, the telephone simply was not adequate as a major research tool: there just weren't enough names in the phone book to guarantee workable results. Now it couldn't be more different: year on year, telephone proliferates. The areas of market research for which it is deemed unsuitable grow smaller.

The commercial world conducts business over the phone (no accident that telephone research thrives in business-to-business research); we are phone fluent now, at ease communicating down a phone line. By contrast, it is also an age of no-go areas, security fences and entryphones, a fragmented culture where people are loath to open doors of their homes to a stranger. Small wonder that traditional face-to-face interviewing is losing out.

Technology's most precious gift to the telephone, with features like auto dialling, is speed of delivery. The pace of collection and the immediacy of the data is more than a selling point. 'It's going to happen now, tonight and that's it,' enthuses Virginia Monk, who manages Network Research's telephone department. 'That's what I love about it: it's so instantaneous, so quick. I love the speed of it, to have the data come in, to play with it.'

Clients at Network are allowed in to witness the research at first hand. Potential problems are dealt with almost straight away. Quotas and standards are checked there and then; call rates and refusal rates are constantly monitored. In comparison, traditional street and home interviewing seems fretful and wearing: it might be hours before a problem becomes known; in a telephone centre they can spot it the minute it pokes its head above ground. ■

Go to the Companion Website and read Professional Perspective 10 by Virginia Monk. Virginia's article 'Ringing home' details the applications, benefits and limitations of telephone interviewing.

The computer systematically guides the interviewer. Only one question at a time appears on the screen. The computer checks the responses for appropriateness and consistency. It uses the responses as they are obtained to personalise the questionnaire. The data collection flows naturally and smoothly. Interviewing time is reduced, data quality is enhanced, and the laborious steps in the data collection process, coding questionnaires and entering data into the computer are eliminated. Because the responses are entered directly into the computer, interim and update reports on data collection or results can be provided almost instantaneously. The following example shows how technological developments allow flexibility in interviewing different types of respondent throughout Europe. Flexibility means that different responses to a particular question can lead to different routes and sets of questions for particular types of respondent.

example

A pan-European view of the executive at lunch [3]

The general perception of CATI is, in the main, one of large sample size and reasonably short, simple, pre-coded questionnaires, conducted during a short fieldwork period. As computers become much more powerful and updated software becomes available, it is apparent that CATI surveys can be approached in new ways. Its abilities to deal with large sample sizes, complicated quota structures and complex, long, modular questionnaires enables us to deal with surveys which once would have caused untold sleepless nights.

In a survey of European executives, CATI was used and coped well with a long and complex questionnaire. The interview covered respondents' exposure to newspapers, magazines, television (terrestrial, satellite and cable) and radio, at any time on any day. To cover the array of media exposure options throughout Europe, the questionnaire needed a comprehensive, pre-coded list of in excess of 100 possibilities. On the first fieldwork day it became apparent that in mainland Europe the borders were already down. Many Belgian, Dutch, French and German businessmen regularly listened to and watched each other's channels. This meant that a European media list was built up and was added to each national list. The CATI system also had to select three publications – the sponsoring organisation's and two others – to be rated on 14 rotated statements according to frequency of readership and whether they were international or not.

The survey not only collected comprehensive and accurate data, it was greatly enjoyed by respondents and interviewers alike, even though the interview length ranged from 20 minutes to a full hour, depending upon the executive's habits. The respondents could see the point and therefore the interviewers could probe and delve while enjoying the responses. 'High Fliers', after all, are not often quizzed about their breakfast, lunch and evening activities – and coding departments see what they get up to even less! ■

The biggest drawback of CATI lies in respondents' willingness to be interviewed by telephone. At times the technique may be confused in the minds of respondents with cold-call selling techniques. To overcome this problem requires interviewers who are trained to reassure respondents and to make the interviewing experience worthwhile. In most businesses, phone calls are screened; how else could managers avoid calls from companies and individuals they do not want to talk to? Many businesses have set up formal procedures to minimise unnecessary calls to management. This is a hurdle well-trained interviewers are taught to circumvent. Experienced interviewers can 'run the gauntlet' of three or four screenings and still secure an interview without in any way upsetting the interviewee.

The usual blocking responses of '(s)he's busy', '(s)he wouldn't be interested', '(s)he doesn't deal in that area', or '(s)he's in a meeting', have been joined by 'we don't allow

marketing research interviews – it's company policy'. Even this will not deter telephone interviewers from seeking interviews but it is a continuing and worrying trend.[4]

So why do companies which commission marketing research themselves restrict their own employees from participating? The reasons given are:

■ The confidentiality of information divulged to interviewers
■ The length of interviews
■ The frequent apparent or real irrelevance of questions
■ The number of requests
■ *Taking part is seen as providing no direct benefit to the company.*

The last point is set in italic as a reminder to all researchers to place themselves in the shoes of potential respondents. The marketing researcher, and the decision-maker they support, may have distinct information requirements, but why should respondents supply this information? What benefits do they gain from giving this information? This issue will be dealt with in examining questionnaire design in Chapter 13, but here we have a reminder of the impact of ignoring the benefits that respondents gain from participating in a survey.

Personal interviews

Omnibus survey
A distinctive form of survey that serves the needs of a syndicated group. The omnibus survey targets particular types of respondents such as those in specific geographic locations, e.g. Luxembourg residents, or consumers of particular types of products, e.g. business air travellers. With that target group of respondents, a core set of questions can be asked, with other questions added as syndicate members wish.

Personal interviewing techniques may be categorised as in-home, in-office, street or computer-assisted.

Personal in-home and in-office interviews

In personal in-home interviews, respondents are interviewed face-to-face in their homes or in their workplace. The interviewer's task is to contact the respondents, ask the questions and record the responses. In recent years, the use of personal in-home interviews has declined due to their high cost. Nevertheless, they are still used, particularly by syndicated firms, as illustrated in the following example. The use of **omnibus surveys** for marketing decision-makers is shown with examples of the types of marketing research projects that are supported by this technique.

example

Omnibus – the flexible research tool for many jobs[5]

The tracking aspect of an omnibus is important for a number of clients, not least because it enables the following:

■ A continuous assessment of awareness and effectiveness of marketing/advertising activity
■ A monitor of opinion/behaviour in constantly changing competitive markets, which in addition may be highly fragmented
■ The accumulation of ongoing data to provide robust bases and thus build, for example, profiles of customers that would otherwise be inaccessible for small brands
■ Access to competitors' performance, without introducing overt bias among respondents' answers
■ Detection of early signs of change in a defined marketplace
■ Opportunities for syndication (with additional benefits, such as shared costs).

Omnimas offers omnibus facilities, each week interviewing 2,000 adults face-to-face in their homes. A number of continuous tracking projects are conducted that range through the following:

■ Advertising awareness tracking (which, depending on the client and subject matter, is conducted on a weekly, monthly or less frequent basis), monitoring whether the advertisement has been seen or heard and how it is communicated or interpreted

- Regular (weekly) behavioural monitors (the Eating Out Of Home Monitor examines consumers' eating habits outside their own homes in restaurants and similar outlets)
- Ongoing tracking of people's awareness, usage and participation in loyalty schemes across a number of retail sectors
- Using ongoing information about consumers' intentions to buy video titles to predict volume sales (data are supplied for Buena Vista Entertainment, the Disney Video Company). ■

In-office research is used extensively in business-to-business research to research subjects who cannot be effectively interviewed by telephone or mail. Managers being interviewed have the comfort and security of their office and can control the timing and pace of the interview. For the researcher, the big benefit of meeting managers in their office is the ability to build up a rapport, probe and gain the full attention of the manager.

Street interviews

In street interviews, respondents are intercepted while they are shopping in town centres or shopping centres. They may be questioned there and then in the street or taken to a specific test facility. In the testing of new product formulations, test facilities are ideal to allow respondents the time and context to sample and evaluate products. The technique can also be used to test merchandising ideas, advertisements and other forms of marketing communications. The big advantage of the street interview is that it is more efficient for the respondent to come to the interviewer than for the interviewer to go to the respondent.[6]

Computer-assisted personal interviews (CAPI)

In computer-assisted personal interviewing, the third form of personal interviewing, the respondent sits in front of a computer terminal and answers a questionnaire on the screen by using the keyboard or a mouse. There are several user-friendly electronic packages that design relatively simple questions for the respondent to understand. Help screens and courteous error messages are also provided. The
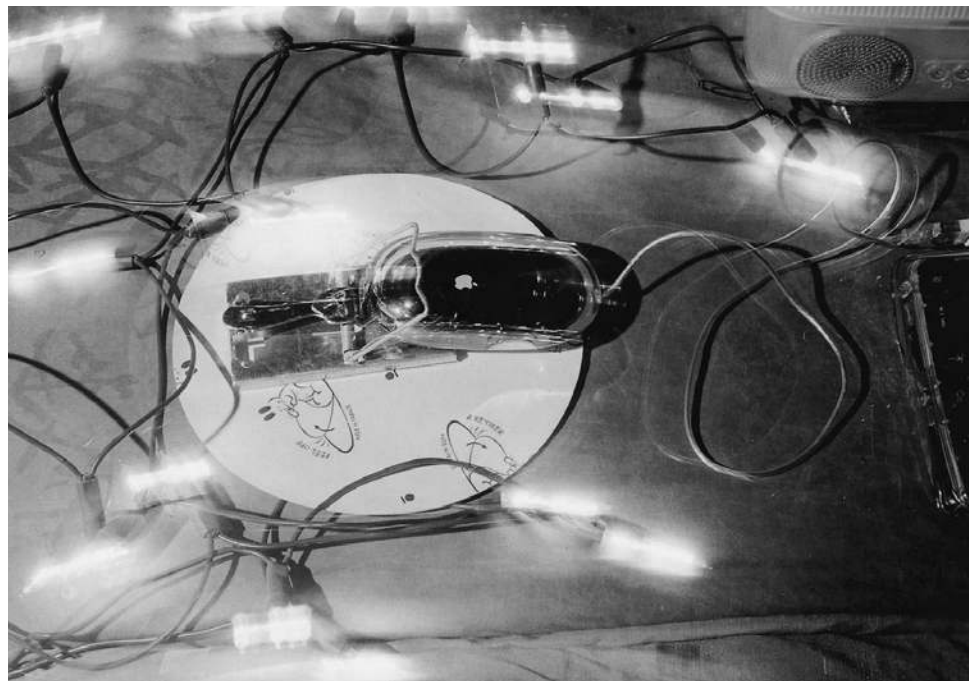
A courteous error message lets the CAPI respondent know that they've made a mistake.

colourful screens and on- and off-screen stimuli add to the respondent's interest and involvement in the task. This method has been classified as a personal interview technique because an interviewer is usually present to serve as a host or hostess and to guide the respondent as needed.

CAPI has been used to collect data at test facilities from street interviews, product clinics, conferences and trade shows. It may also be used for in-home or in-office interviews. You may wonder, however, how CAPI compares with the traditional method of conducting personal interviews, using paper-and-pencil questionnaires. The following example illustrates the benefits of CAPI compared with traditional interviewing.

<table>
<tr><td>*e x a m p l e*</td><td>

How the omnibus hit the fast track – and now, hold very tight . . .[7]

The introduction of the CAPI overnight transformed the capabilities of the personal omnibus survey. The speed of delivering results improved dramatically, from three to four weeks, which was the norm for a paper survey, down to seven to eight days for a CAPI omnibus. There were also considerable improvements in data quality obtained by eliminating routing errors, providing the ability to build edits into questionnaire scripts and introducing more sophisticated field management systems.

The major impact of CAPI lay in the facility to produce and store complex and highly filtered questionnaire scripts, which transformed the scope of the omnibus as a data collection vehicle. For example, it became possible and cost-efficient to hold complex batteries of questions, applying only to a small minority group, which are triggered when a target informant is identified. ◼

</td></tr>
</table>

A major development for marketers, especially in financial services, has been the use of customer satisfaction surveys to guide strategic and operational decisions. With traditional interview techniques, the interviewer may have to carry a huge questionnaire to cope with questions that measure attitudes to a range of banks and a range of services taken from those banks. With CAPI, when a particular bank is chosen, particular questions may be filtered out, and choosing a particular service from that bank can filter out further questions. Questions specific to the respondent may then be asked, in all making the interview process far more efficient.

Mail interviews

Mail interviews, the third major form of survey administration, can be conducted via traditional mail, mail panel or electronic mail.

Traditional mail interviews

In the traditional mail interview, questionnaires are mailed to preselected potential respondents. A typical mail interview package consists of the outgoing envelope, cover letter, questionnaire, return envelope, and possibly an incentive.[8] The respondents complete and return the questionnaires. There is no verbal interaction between the researcher and the respondent in the interview process.[9] There may be an initial contact with potential respondents, to establish who is the correct person to send the questionnaire to, and to motivate them before they receive the survey.

Before data collection can begin, however, the respondents need to be at least broadly identified. Therefore, an initial task is to obtain a valid mailing list. Mailing lists can be compiled from telephone directories, customer databases or association membership databases, or can be purchased from publication subscription lists or commercial mailing list companies.[10] To experience an online selection and purchase of lists, allowing very specific demographic and lifestyle characteristics of target

respondents to be selected, see www.prospectlocator.com. Regardless of its source, a mailing list should be current and closely related to the population of interest. (Chapters 13 and 14 will detail the full questionnaire design and sampling implications of this approach.) With an understanding of characteristics of target respondents and what will motivate them to respond honestly, fully and as quickly as possible, the researcher must also make decisions about the various elements of the mail interview package (see Table 10.1).

Table 10.1 **Some decisions related to the mail survey package**

Outgoing envelope	Method of addressing	Envelope size, colour	Postage	
Covering letter	Personalisation	Sponsorship	Type of appeal	Signature
Questionnaire	Size, length and content	Colour and layout	Format and reproduction	Respondent anonymity
Instructions	As part of covering letter	A separate sheet	Alongside individual questions	
Return envelope	Whether to include one	Type of envelope	Postage	
Incentives	Feedback of findings	Monetary vs. non-monetary	Prepaid vs. promised amount	

The GlobalCash Project had a long and complex questionnaire which was administered by mail throughout Europe.

A postal survey throughout Europe

The GlobalCash questionnaire was sent by mail to Treasury and Cash Managers in Europe's largest corporations. It covered many complex and technical issues, which had to be carefully translated into 10 European languages. In Switzerland, for example, French, German, Italian or English versions were available, depending upon the company and region targeted. Before questionnaires were sent out, telephone calls were made to every company in the sampling frame. These ensured that targeted respondents were correctly identified, all other postal details were correct and the purpose and benefits to the respondent were clear. A second telephone call was made, two weeks after the questionnaire was sent out, to further encourage a positive response. Given the wide geographic spread, the long and technical nature of the subject and little pressure to quickly generate analyses for the whole of Europe, the mail survey was the ideal survey technique. ■

Mail panels

Mail panels
A large and nationally representative sample of households that have agreed to participate in periodic mail questionnaires, product tests and telephone surveys.

Mail panels were introduced in Chapters 3 and 4. A **mail panel** consists of a large, nationally representative sample of households that have agreed to participate in periodic mail questionnaires, product tests and telephone surveys. The households are compensated with various incentives. Mail panels can be used to obtain information from the same respondents repeatedly. Thus, they can be used to implement a longitudinal design.

Electronic mail

Electronic mail can be broken down into email and Internet interviews. To conduct a survey by email, a list of email addresses needs to be obtained. The survey is written within the body of the email message and sent to respondents. Email surveys use pure text (ASCII) to represent questionnaires, and can be received and responded to by anyone with an email address, whether or not they have access to the Web.

Respondents type their answers to either closed-ended or open-ended questions at designated places, and click on 'reply'. Responses are then entered into an analysis package and tabulated. Alternatively, a program can be written that interprets the emailed responses and reads the answers directly into a format compatible with the requirements of an analysis package.

Text-based email surveys are convenient for the respondent because they require no facilities or expertise beyond those that they use in their day-to-day email communication. Email surveys do have several limitations, chief of which is that they can appear dry and uninteresting.[11] Given the technical limitations of most email systems, questionnaires cannot utilise programmed filters or skip-patterns, logic checks or randomisation. The limited intelligence of ASCII text cannot keep a respondent from, say, choosing both 'yes' and 'no' to a question where only one response is meaningful. Filter or skipping instructions (e.g. 'If the answer to question 8 is 'Yes', go to question 16) must appear explicitly, just as on paper. These factors can reduce the quality of data from an email survey and can require post-survey data cleaning.[12]

Hypertext markup language (HTML)
The language of the Web.

In contrast to email surveys, Internet or Web surveys use **hypertext markup language** (HTML), the language of the Web, and are posted on a Website. Respondents may be recruited online from potential respondent databases maintained by the marketing research firm or they can be recruited by conventional techniques (mail, telephone). Respondents are asked to go to a particular Web location to complete the survey. Frequently, respondents are not recruited, but those who happen to be visiting the Website on which the survey is posted (or other popular Websites) are invited to participate in the survey. Either all or every *i*th Web visitor is allowed to participate. Web surveys offer several advantages over email surveys. It is possible in HTML, but not in ASCII text, to construct buttons, check boxes and data entry fields that prevent respondents from selecting more than one response where only one is intended, or from otherwise typing where no response is required. Skip patterns can be programmed and performed automatically as in CATI or CAPI. It is possible to validate responses as they are entered. Finally, additional survey stimuli such as graphs, images, animations and links to other Web pages may be integrated into or around the survey. The responses are collected in an adjoining database. The data require some processing before they can be tabulated or used in a statistical package. All these factors contribute to a higher-quality experience and elicitation process. With the growth of the use of email and the Internet as means of communication, electronic mail is rapidly becoming the most feasible and popular means of conducting surveys. Most survey analysis packages that include the function of questionnaire design have the ability to formulate the questionnaire into email and Internet formats. Big sampling problems exist with electronic mail, which will be tackled in Chapter 14. The speed of administering the survey, collecting and analysing the data, linked with very low costs, make electronic mail very attractive.

The following lists summarise the advantages and disadvantages of Internet surveys:[13]

Advantages

■ *Speed*. Compared with a postal survey, especially on an international basis, the time taken can be reduced to a matter of days rather than weeks. Even if one includes the time taken to contact respondents by email, to establish their willingness to take part in a survey, for them to reply, for the survey to be sent, for it to be completed and then emailed back (the procedure adopted to reduce the perception of 'junk' email), such a survey can be completed far more quickly than a postal procedure. There can be a 'seamless' international coordination that using traditional mail would be very time-consuming to organise.

- *Cost.* Once the electronic questionnaire is set up, it is almost as easy to mail it to 10,000 people as to 10, since there are no printing, stationery and postage costs.
- *Quality of response.* Quality can be measured by the number and clarity of responses to open-ended questions. Graphics can be displayed to maintain the interest of respondents but also to put them in a frame of mind that elicits more from them.
- *Interviewer bias removed.* The method maintains the key advantage of mail surveys in being able to present a consistent form of measurement.
- *Data quality.* Logic and validity checks can be built in, and in areas where open-ended or 'other – please state' responses are required, the respondent types in answers ready for analysis.
- *Contacting certain target groups.* Such groups are mostly those who are regular users of the Internet, and certain business target markets.

Disadvantages

- *Sampling frames.* Where are the lists of email numbers? Unlike telephone numbers, there is no published list of email addresses. This is being slowly rectified by the addition of email addresses to established directories used as sampling frames. Another sampling issue is that the questions are self-completion based and the researcher does not know whether those who choose to take part are really representative of a target population. Being able to generalise findings to a particular population becomes difficult with a self-selecting sample.
- *Access to the Web.* At present the penetration of households and businesses is low, though it is growing rapidly, and in businesses the Web is rapidly being adopted as the medium of communication.
- *Technical problems.* Depending upon the hardware and software that respondents use, the questionnaire may 'work' or not as was intended by the designer.

➤➤➤
See Professional Perspective 6.

Go to the Companion Website and read Professional Perspective 6 by Jeff Miller. Jeff's article 'Net vs. phone: the great debate' presents research conducted by his company, Burke Interactive. It describes the relative benefits and applications of Internet surveys compared with telephone interviews.

A comparative evaluation of survey techniques

Not all survey techniques are appropriate in a given situation. Therefore, the researcher should conduct a comparative evaluation to determine which techniques are appropriate. Table 10.2 compares the different survey techniques through a range of criteria. For any particular research project, the relative importance attached to these criteria will vary. The criteria consist of flexibility of data collection, diversity of questions, use of physical stimuli, sample control, control of the data collection environment, control of field force, quantity of data, response rate, perceived respondent anonymity, social desirability, obtaining sensitive information, potential for interviewer bias, potential to probe respondents, potential to build rapport, speed and cost.

Flexibility of data collection

The flexibility of data collection is determined primarily by the extent to which the respondent can interact with the interviewer and the survey questionnaire. The personal interview, whether conducted as an in-home, in-office or street interview, allows the highest flexibility of data collection. Because the respondent and the interviewer meet face to face, the interviewer can administer complex questionnaires, explain and clarify difficult questions, and even use unstructured techniques.

Table 10.2 A comparative evaluation of survey techniques

	Telephone CATI	In-home In-office interviews	Street interviews	CAPI	Traditional mail surveys	Mail panels	Email	Internet
Flexibility of data collection	Moderate to high	High	High	Moderate to high	Low	Low	Low	Moderate to high
Diversity of questions	Low	High	High	High	Moderate	Moderate	Moderate	Moderate to high
Use of physical stimuli	Low	Moderate to high	High	High	Moderate	Moderate	Low	Moderate
Sample control	Moderate to high	Potentially high	Moderate	Moderate	Low	Moderate to high	Low	Low to moderate
Control of data collection environment	Moderate	Moderate to high	High	High	Low	Low	Low	Low
Control of field force	Moderate	Low	Moderate	Moderate	High	High	High	High
Quantity of data	Low	High	Moderate	Moderate	Moderate	High	Moderate	Moderate
Response rate	Moderate	High	High	High	Low	Moderate	Low	Low
Perceived respondent anonymity	Moderate	Low	Low	Low	High	High	Moderate	High
Social desirability	Moderate	Low to moderate	Low	Low to high	High	High	High	High
Obtaining sensitive information	Low	High	Low	Moderate	Moderate	Moderate	Moderate	Moderate
Potential for interviewer bias	Moderate	High	High	Low	None	None	None	None
Potential to probe respondents	Low	High	Moderate	Moderate	Low	Low	Low	Low
Potential to build rapport	Moderate	High	Moderate to high	Moderate to high	Low	Low	Low	Low
Speed	High	Moderate	Moderate to high	Moderate to high	Low	Low to high	High	High
Cost	Moderate	High	Moderate to high	Moderate to high	Low	Low to moderate	Low	Low

By contrast, the traditional telephone interview allows only moderate flexibility because it is more difficult to use unstructured techniques, ask complex questions, or obtain in-depth answers to open-ended questions over the telephone. CATI and CAPI and Internet surveys allow somewhat greater flexibility because the researcher can use various question formats, can personalise the questionnaire, and can handle complex skip or filter patterns (directions for skipping questions in the questionnaire based on

the subject's responses). Because the electronic and mail questionnaire allows for no interaction between the interviewer and the respondent, mail surveys, mail panels and email surveys have low flexibility.

An often-overlooked benefit of Internet survey research is the ease with which an Internet survey can be quickly modified. For example, early data returns may suggest additional questions that should be asked. Changing or adding questions as the need becomes apparent would be almost impossible with a traditional mail survey, possible but difficult with personal or telephone questionnaires, but achievable in a matter of minutes with some Internet survey systems.

Diversity of questions

The diversity of questions that can be asked in a survey depends on the degree of interaction the respondent has with the interviewer and the questionnaire, as well as the respondent's ability to actually see the questions. A variety of questions can be asked in a personal interview because the respondent can see the questionnaire and the interviewer is present to clarify ambiguities. Thus in-home and in-office interviews, street interviews and CAPI allow for diversity. In Internet surveys, multimedia capabilities can be utilised and so the ability to ask a diversity of questions is moderate to high, despite the absence of an interviewer. In mail surveys, mail panels and email surveys, less diversity is possible. In traditional telephone interviews and CATI, the respondent cannot see the questions while answering, and this limits the diversity of questions. For example, in a telephone interview or CATI, it would be very difficult to ask respondents to rank 15 television programmes in terms of preference.

Use of physical stimuli

Often it is helpful or necessary to use physical stimuli such as products, product prototypes, commercials or promotional displays during an interview. For the most basic example, a taste test involves tasting the product and evaluating the taste. In other cases, photographs, maps or other audio-visual cues are helpful. In these cases, personal interviews conducted at central locations (guided through street interviews and CAPI) are more preferable to in-home interviews. In the central location, many intricate visual stimuli can be set up prior to the actual interview. Mail surveys and mail panels are moderate on this dimension, because sometimes it is possible to mail the facilitating aids or even product samples. Internet surveys are also moderately suitable. Because they are Web-based, the questionnaires can include multimedia elements such as prototype Web pages and advertisements. The use of physical stimuli is limited in traditional telephone interviews and CATI, as well as in email surveys (depending upon the respondent's ability to open attachments).

Sample control

Sample control
The ability of the survey mode to reach the units specified in the sample effectively and efficiently.

Sample control is the ability of the survey mode to reach the units specified in the sample effectively and efficiently.[14] At least in principle, in-home and in-office personal interviews offer the best sample control. It is possible to control which sampling units are interviewed, who is interviewed, the degree of participation of other members of the household, and many other aspects of data collection. In practice, to achieve a high degree of control, the researcher has to overcome several problems. It is difficult to find respondents at home during the day because many people work outside the home. Also, for safety reasons, interviewers are reluctant to venture into certain neighbourhoods and people have become cautious of responding to strangers at their door. Street interviews allow only a moderate degree of sample control. Although the interviewer has control over which respondents to intercept, the choice

is limited to individuals who are walking down a street or through a shopping centre, and frequent shoppers have a greater probability of being included. Also, potential respondents can intentionally avoid or initiate contact with the interviewer. Compared with street interviews, CAPI offers slightly better control, as sampling quotas can be set and respondents randomised automatically.

Moderate to high sampling control can be achieved with traditional telephone interviews and CATI. Telephones offer access to geographically dispersed respondents and hard-to-reach areas. These procedures depend upon a **sampling frame**, a list of population units with their telephone numbers.[15] The sampling frames normally used are telephone directories, but telephone directories are limited in that:

Sampling frame
A representation of the elements of the target population that consists of a list or set of directions for identifying the target population.

1 Not everyone has a phone, while some individuals have several phone numbers partly due to the growing use of mobile phones.
2 Some individuals have unlisted phones or are ex-directory.
3 Directories do not reflect new phones in service or recently disconnected phones.

Internet, email and traditional mail surveys require a list of addresses of individuals or households eligible for inclusion in the sample. Mail surveys can reach geographically dispersed respondents and hard-to-reach areas. However, mailing lists are sometimes unavailable, outdated or incomplete, especially for electronic addresses. Another factor outside the researcher's control is whether the questionnaire is answered and who answers it. Some subjects refuse to respond because of lack of interest or motivation; others cannot respond because they are illiterate.[16] Given these reasons, the degree of sample control in electronic and mail surveys is low.[17]

Mail panels, on the other hand, provide moderate to high control over the sample. They can provide samples matched to national census statistics on key demographic variables. It is also possible to identify specific user groups within a panel and to direct the survey to households with specific characteristics. Specific members of households in the panel can be questioned. Finally, low-incidence groups, groups that occur infrequently in the population, can be reached with panels, but there is a question of the extent to which a panel can be considered representative of the entire population.

Not all populations are candidates for Internet survey research. Although respondents can be screened to meet qualifying criteria and quotas imposed, the ability to meet quotas is limited by the number and characteristics of respondents who visit the Website. However, there are some exceptions to this broad statement. For example, computer products purchasers and users of Internet services are ideal populations. Business and professional users of Internet services are also an excellent population to reach with Internet surveys. Sample control is low to moderate for Internet surveys, whilst email surveys suffer from many of the limitations of mail surveys and thus offer low sample control.

Control of the data collection environment

The context in which a questionnaire is completed can affect the way that a respondent answers questions. An example of this would be the amount of distraction from other people around, noise and temperature. The degree of control a researcher has over the context or environment in which the respondent answers the questionnaire differentiates the various survey modes. Personal interviews conducted at central locations (from street interviews and CAPI) offer the greatest degree of environmental control. For example, the researcher can set up a special facility for demonstrating a product upon which a survey is based. In-home and in-office personal interviews offer moderate to high control because the interviewer is present. Traditional tele-

phone interviews and CATI offer moderate control. The interviewer cannot see the environment in which the interview is being conducted, but he or she can sense the background conditions and encourage the respondent to be attentive and involved. In mail surveys, panels, email and Internet surveys, the researcher has little or no control over the environment.

Control of field force

The **field force** consists of interviewers and supervisors involved in data collection. Because they require no such personnel, mail surveys, mail panels, email and Internet surveys eliminate field force problems. Traditional telephone interviews, CATI, street interviews and CAPI all offer moderate degrees of control because the interviews are conducted at a central location, making supervision relatively simple. In-home and in-office personal interviews are problematic in this respect. Because many interviewers work in many different locations, continual supervision is impractical.[18]

Quantity of data

In-home and in-office personal interviews allow the researcher to collect large amounts of data. The social relationship between the interviewer and the respondent, as well as the home or office environment, motivates the respondent to spend more time in the interview. Less effort is required of the respondent in a personal interview than in a telephone or mail interview. The interviewer records answers to open-ended questions and provides visual aids to help with lengthy and complex scales. Some personal interviews last for as long as 75 minutes. In contrast to in-home and in-office interviews, street interviews and CAPI provide only moderate amounts of data. Because these interviews are conducted in shopping centres and other central locations, a respondent's time is more limited. Typically, the interview time is 20 minutes or less.

Mail surveys also yield moderate amounts of data. Fairly long questionnaires can be used because short questionnaires do not necessarily generate higher response rates than long ones. The same is true for email and Internet surveys, although the Internet is a better medium in this respect. Mail panels, on the other hand, can generate large amounts of data because of the special relationship between the panel members and the sponsoring organisation.

Traditional telephone interviews and CATI result in the most limited quantities of data. They tend to be shorter than other surveys because respondents can easily terminate the telephone conversation at their own discretion. These interviews commonly last about 15 minutes, although longer interviews may be conducted when the subject matter is of interest to the respondents.[19]

Response rate

Survey **response rate** is broadly defined as the percentage of the total attempted interviews that are completed. Personal, in-home and in-office, street and CAPI yield the highest response rates. Problems caused by 'not-at-homes' can often be resolved by calling back at different times. Telephone interviews, traditional and CATI, also suffer from not-at-homes or no-answers. Higher response rates are obtained by call-backs. Many telephone surveys attempt to call back at least three times.

Mail surveys have the poorest response rate. In a mail survey of randomly selected respondents, without any pre- or postmailing contact, response rates can be less than 15%. Such low response rates can lead to serious bias (**non-response bias**). This is because whether a person responds to a mail survey is related to how well the benefits of taking part in the survey are meaningful to the respondent and are clearly communicated to them. The magnitude of non-response bias increases as the response rate

decreases. Response rates in mail panels are much higher than in traditional mail techniques because of assured respondent cooperation.

Internet surveys can have very poor response rates, much depending upon how comprehensive and current the sampling frame is. With a well-constructed sampling frame that is relevant to the survey topic, response rates on the Internet can be relatively high.

A comprehensive review of the literature covering 497 response rates in 93 journal articles found weighted average response rates of 81.7%, 72.3% and 47.3% for, respectively, personal, telephone and mail surveys.[20] The same review also found that response rates increase with the following:

- Either prepaid or promised monetary incentives
- An increase in the amount of monetary incentive
- Non-monetary premiums and rewards (pens, pencils, books)
- Preliminary notification
- Foot-in-the door techniques. These are multiple request strategies. The first request is relatively small, and all or most people agree to comply. The small request is followed by a larger request, called the **critical request**, which is actually the target behaviour being researched
- Personalisation (sending letters addressed to specific individuals)
- Follow-up letters.

A further discussion of improving response rates is found in Chapter 15.

Critical request
The target behaviour being researched.

Perceived respondent anonymity

Perceived respondent anonymity
The respondents' perceptions that their identities will not be discerned by the interviewer or researcher.

Perceived respondent anonymity refers to the respondents' perceptions that their identities will not be discerned by the interviewer or the researcher. Perceived anonymity of the respondent is high in mail surveys, mail panels and Internet surveys because there is no contact with an interviewer while responding. It is low in personal interviews (in-home, street and CAPI) due to face-to-face contact with the interviewer. Traditional telephone interviews and CATI fall in the middle. It is also moderate with email; while there is no contact with the interviewer, respondents know that their names can be located on the return email.

Social desirability

Social desirability
The tendency of respondents to give answers that may not be accurate but may be desirable from a social standpoint.

Social desirability is the tendency of respondents to give answers that they feel to be acceptable in front of others, including interviewers. When a respondent is questioned face to face by an interviewer, they may give an answer that they feel to be 'acceptable' rather than how they really feel or behave. An example of this phenomenon occurred during the Opinion Polls that led up to the British General Election in 1992. The Opinion Polls placed the Labour Party a clear 8% ahead of the Conservative Party. In the actual election, the Conservative Party won, confounding all of the Opinion Poll predictions. This outcome resulted in an investigation by the Royal Statistical Society and the Market Research Society into why all the Opinion Polls had consistently predicted that the Labour Party would win. The investigation revealed that many respondents (who primarily had been interviewed face to face and by telephone) said they would vote Labour, as this was seen to be the socially acceptable thing to do. In the privacy of the polling booth, they voted Conservative.

The best techniques to avoid respondents distorting their views are those where face-to-face contact is avoided; this is the case with all mail methods. Traditional telephone interviews and CATI are moderately good at handling socially desirable responses, as there is an amount of anonymity afforded by not meeting face to face.

The weakest techniques are face-to-face interviews, though in the case of in-home and in-office interviews, the chance to build up a rapport with respondents may nurture the respondent to reveal how they really feel. [21]

Obtaining sensitive information

Sensitive information may mean an issue that is personally sensitive, such as the way in which a respondent may be classified or the use of hygiene products. What may be deemed 'sensitive' varies enormously between different types of respondent. For some respondents, asking questions about the type and amount of household cleaning products may be seen as revealing characteristics of their personal cleanliness; they see it as a sensitive issue and would need a lot of reassurance before revealing the truth. Many classification questions in a survey, such as the respondent's age, gender, educational or income level, can also be seen as highly sensitive. In business research, characteristics of an organisation's activities may be seen as commercially sensitive.

In some situations, the interviewer plays a very important role in explaining to respondents why they are being asked such a question and that their views will be handled in a confidential and proper manner. In-home and in-office interviews allow the time and context to build up such explanations and reassure respondents. Interviews conducted in this way may be seen as the best means to handle certain sensitive topics. For some issues, respondents may not wish to face any interviewer and would like to complete the survey alone. A CAPI can be set up so that the interviewer introduces the respondent to a terminal and then leaves the respondent to get on with the on-screen interview.[22] All mail surveys can be seen as moderately successful in handling sensitive questions. Their success depends upon how well the purpose of

Questions about drinking habits may be perceived as a sensitive issue by some respondents.

sensitive questions is introduced. Handled correctly, respondents can take their time to answer questions without any embarrassing contact. For telephone and street interviews, the interviewer can reassure the respondent about the questions being asked, but may not have the time and context to really relax respondents and overcome any embarrassment.

Potential for interviewer bias

An interviewer can bias the results of a survey by the manner in which he or she:

1 selects respondents (e.g. interviewing a male aged 34 when required to interview a male aged between 36 and 45);
2 asks research questions (omitting questions);
3 poses questions in another way when respondents do not understand the question as presented on the questionnaire;
4 probes (e.g. by offering examples to encourage respondents);
5 records answers (recording an answer incorrectly or incompletely).

The extent of the interviewer's role determines the potential for bias.[23] In-home, in-office and street personal interviews are highly susceptible to interviewer bias. Traditional telephone interviews and CATI are less susceptible, although the potential is still there. For example, with inflection and tone of voice, interviewers can convey their own attitudes and thereby suggest answers. CAPI has a low potential for bias. Mail surveys, mail panels, email and Internet surveys are free of it.

Potential to probe respondents

Though the interviewer has the potential to create bias in the responses elicited from respondents, it is balanced somewhat by the amount of probing that can be done. For example, a survey may ask respondents which brands of beer they have seen advertised on television over the past month. A list of brands could be presented to respondents and they could simply look at the list and call out the names. What may be important in the survey is what brands they could remember. There may be a first response, of a brand that could be remembered unaided. A simple probe such as 'any others?' or 'any involving sports personalities?' could be recorded as a second response.

Much deeper prompts and probes can be conducted, within limits. The intention is not to turn the interview into a qualitative interview but, for example, some of the reasons why a respondent has chosen a brand may be revealed. In-home, in-office and street personal interviews have great potential for probing respondents. Traditional telephone interviews and CATI can also probe but not to the same extent as being face to face. CAPI has limited potential to probe, though particular routines can be built into a survey to ask for further details. Mail surveys, mail panels, email and Internet surveys have very limited means to probe respondents.

Potential to build rapport

Another counter to the bias in the responses elicited from respondents by personal interviews is the amount of rapport that can be built up with respondents. Rapport may be vital to communicate why the survey is being conducted, with a corresponding rationale for the respondent to spend time answering the questions. Beyond motivating respondents to take part in a survey is the need for the respondent to answer truthfully, to reflect upon the questions properly and not to rush through the questionnaire. Building up a good rapport with respondents can be vital to gain a full and honest response to a survey.

In-home, in-office and street personal interviews have great potential to build up rapport with respondents. Traditional telephone interviews and CATI can also

develop rapport but not to the same extent as being face to face. CAPI has limited potential to build up rapport through particular graphics and messages that can be built into a survey. When recruiting respondents to mail panels, an amount of rapport can be built up. Mail surveys, email and Internet surveys have very limited means to build up a rapport with respondents.

Speed

First, there is the speed with which a questionnaire can be created, distributed to respondents, and the data returned. Because printing, mailing and data keying delays are eliminated, data can be in hand within hours of writing an Internet or telephone questionnaire. Data are obtained in electronic form, so statistical analysis software can be programmed to process standard questionnaires and return statistical summaries and charts automatically. Thus, the Internet can be an extremely fast method of obtaining data from a large number of respondents. The email survey is also fast, although slower than the Internet, since more time is needed to compile an email list and data entry is also required.

Traditional telephone interviews and CATI are also fast means of obtaining information. When a central telephone facility is used, several hundred telephone interviews can be done per day. Data for even large national surveys can be collected in a matter of days or even within a day. Next in speed are street and CAPI interviews that reach potential respondents in central locations. In-home personal interviews are slower because there is dead time between interviews while the interviewer travels to the next respondent. To expedite data collection, interviews can be conducted in different markets or regions simultaneously. Mail surveys are typically the slowest. It usually takes several weeks to receive completed questionnaires; follow-up mailings to boost response rates take even longer. Mail panels are faster than mail surveys because little follow-up is required.

Cost

For large samples, the cost of Internet surveys is the lowest. Printing, mailing, keying and interviewer costs are eliminated, and the incremental costs per respondent are typically low, so studies with large numbers of respondents can be done at substantial savings compared with mail, telephone or personal surveys. Personal interviews tend to be the most expensive mode of data collection per completed response, whereas mail surveys tend to be the least expensive. In general, Internet, email, mail surveys, mail panel, traditional telephone, CATI, CAPI, street and personal in-home interviews require progressively larger field staff and greater supervision and control. Hence, the cost increases in this order. Relative costs, however, depend on the subject of enquiry and the procedures adopted.[24]

Selection of survey method(s)

As is evident from Table 10.2 and the preceding discussion, no survey method is superior in all situations. Depending on such factors as information requirements, budgetary constraints (time and money) and respondent characteristics, no, one, two or even all techniques may be appropriate. Remember that the various data collection modes are not mutually exclusive. Rather, they can be employed in a complementary fashion to build on each other's strengths and compensate for each other's weaknesses. The researcher can employ these techniques in combination and develop creative twists within each technique. To illustrate, in a classic project, interviewers

distributed the product, self-administered questionnaires and return envelopes to respondents. Traditional telephone interviews were used for follow-up. Combining the data collection modes resulted in telephone cooperation from 97% of the respondents. Furthermore, 82% of the questionnaires were returned by mail.[25]

Observation techniques

Quantitative observation
The recording and counting of behavioural patterns of people, objects and events in a systematic manner to obtain information about the phenomenon of interest.

Mystery shopper
An observer visiting providers of goods and services as if they were really a customer, and recording characteristics of the service delivery.

Structured observation
Observation where the researcher clearly defines the behaviours to be observed and the techniques by which they will be measured.

Quantitative observation techniques are extensively used in descriptive research. Observation involves recording the behavioural patterns of people, objects and events in a systematic manner to obtain information about the phenomenon of interest. The observer does not question or communicate with the people being observed unless he or she takes the role of a **mystery shopper**. Information may be recorded as the events occur or from records of past events. Observational techniques may be structured or unstructured, disguised or undisguised. Furthermore, observation may be conducted in a natural or a contrived environment.[26]

Structured versus unstructured observation

For **structured observation**, the researcher specifies in detail what is to be observed and how the measurements are to be recorded, such as when an auditor performs a stock or inventory analysis in a store. This reduces the potential for observer bias and enhances the reliability of the data. Structured observation is appropriate when the phenomena under study can be clearly defined and counted. For example, suppose that the researcher wished to measure the ratio of visitors to buyers in a store. The reason for such observations could be to understand the amount of browsing that occurs in a store. They could observe and count the number of individuals who enter the store and the number who make a purchase. Counting people who enter a shop could be a manual observation, and could have a rule that the store visitor is counted 'if they actually look at any of the products on display'. Counting the number of transactions through the till may be a simpler electronic observation. With these two counts they could simply calculate the required ratio. Structured observation is suitable for use in conclusive research.

Unstructured observation
Observation that involves a researcher monitoring all relevant phenomena, without specifying the details in advance.

In **unstructured observation** the observer monitors all aspects of the phenomenon that seem relevant to the problem at hand, such as observing children playing with new toys and trying to understand what activities they enjoy the most. This form of observation can be used when a research problem has yet to be formulated precisely and when flexibility is needed in observation to identify essential components of the problem and to develop hypotheses. Unstructured observation is most appropriate for exploratory research and as such was discussed in detail in Chapter 6 under the heading of **Ethnography**. Ethnographic techniques require a researcher to spend a large amount of time observing a particular group of people, by sharing their way of life.[27]

Ethnography
A research approach based upon the observation of the customs, habits and differences between people in everyday situations.

Disguised versus undisguised observation

In disguised observation, the respondents are unaware that they are being observed. Disguise enables respondents to behave naturally because people tend to behave differently when they know they are being observed. Disguise may be accomplished by using two-way mirrors, hidden cameras or inconspicuous electronic devices. Observers may be disguised as shoppers, sales assistants or other appropriate roles. One of the most widespread techniques of observation is through the use of mystery shoppers. The following example illustrates what a mystery shopper may observe in a bank service delivery.

The mystery squad's tougher challenge[28]

Typically a mystery shopper would go into a bank, note practical things such as the number of counter positions open, the number of people queuing, or the availability of specific leaflets, and then ask a number of specific questions. The mystery shopper takes the role of the ordinary 'man or woman in the street', behaves just as a normal customer would, asks the same sort of questions a customer would, leaves, and fills in a questionnaire detailing the various components observed in their visit. ■

Mystery shopping differs from conventional survey research in that it aims to collect facts rather than perceptions. Conventional customer service research is all about customer perceptions. Mystery shopping, on the other hand, aims to be as objective as possible and to record as accurately as possible what actually happened in encounters such as the following.

Personal visits
- How long were you in the queue?
- How many tills were open?
- Did the counter clerk apologise if you were kept waiting?
- What form of greeting or farewell was given?

Telephone calls
- How many rings were there before the phone was answered?
- Did the person who answered the phone go on to answer all your questions?
- Were you asked a password?
- How many times during the conversation was your name used?

In undisguised observation, respondents are aware that they are under observation. Respondents may be aware of the situation either by being told that an observer is in their presence or by its being obvious that someone is recording their behaviour. Researchers disagree on how much effect the presence of an observer has on behaviour. One viewpoint is that the observer effect is minor and short-lived.[29] The other position is that the observer can seriously bias the behaviour patterns.[30] There are ethical considerations to disguised versus undisguised observations that will be tackled at the end of this chapter.

Go to the Companion Website and read Professional Perspective 11 by David Backinsell. David's article 'The new management tool that's no mystery' details characteristics of this method of observation. It is set very clearly in a context of the process of consumption and service delivery.

Natural versus contrived observation

Natural observation
Observing behaviour as it takes place in the environment.

Contrived observation
Observing behaviour in an artificial environment.

Natural observation involves observing behaviour as it takes place in the environment. For example, one could observe the behaviour of respondents eating a new menu option in Burger King. In **contrived observation**, respondents' behaviour is observed in an artificial environment, such as a test kitchen.

The advantage of natural observation is that the observed phenomenon will more accurately reflect the true phenomenon, as the behaviour occurs in a context that feels natural to the respondent. The disadvantages are the cost of waiting for the phenomenon to occur and the difficulty of measuring the phenomenon in a natural setting.

Observation techniques classified by mode of administration

As shown in Figure 10.2, observation techniques may be classified by mode of administration as personal observation, electronic observation, audit, content analysis and trace analysis.

Personal observation

Personal observation
An observational research strategy in which human observers record the phenomenon being observed as it occurs.

In **personal observation**, a researcher observes actual behaviour as it occurs. The observer does not attempt to control or manipulate the phenomenon being observed but merely records what takes place. For example, a researcher might record the time, day and number of shoppers who enter a shop and observe where those shoppers 'flow' once they are in the shop. This information could aid in designing a store's layout and determining the location of individual departments, shelf locations and merchandise displays.

Electronic observation

Electronic observation
An observational research strategy in which electronic devices, rather than human observers, record the phenomena being observed.

In **electronic observation**, electronic devices rather than human observers record the phenomenon being observed. The devices may or may not require the respondents' direct participation. They are used for continuously recording ongoing behaviour for later analysis.

Of the electronic devices that do not require respondents' direct participation, the A.C. Nielsen audimeter is best known. The audimeter is attached to a television set to record continually the channel to which a set is tuned. Another way to monitor viewers is through the people meter. People meters attempt to measure not only the channels to which a set is tuned but also who is watching.[31] Other common examples include turnstiles that record the number of people entering or leaving a building and traffic counters placed across streets to count the number of vehicles passing certain locations.

The most significant electronic observation form as detailed in Chapter 5 is through the use of the bar code on products. As goods are sold, optical scanners can determine which products have been sold. With a link to a 'loyalty card', electronic observation links the whole array of purchases made by a consumer to the actual identity of that consumer. In this example, electronic observation does not require direct involvement of the participants.

In contrast, there are many electronic observation devices that do require participant involvement. These electronic devices may be classified into five groups: (1) eye tracking monitors, (2) pupilometers, (3) psycho-galvanometers, (4) voice pitch analysers, and (5) devices measuring response latency. **Eye tracking equipment** – such as oculometers, eye cameras or eye view minuters – records the gaze movements of the eye. These devices can be used to determine how a respondent reads an advertisement or views a TV commercial and for how long the respondent looks at various parts of the stimulus. Such information is directly relevant to assessing advertising effective-

Eye tracking equipment
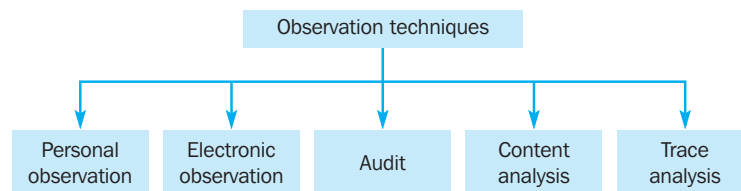Instruments that record the gaze movements of the eye.

Figure 10.2
A classification of observation techniques

Observation techniques

Personal observation | Electronic observation | Audit | Content analysis | Trace analysis

Pupilometer
An instrument that measures changes in the eye pupil diameter.

ness. The **pupilometer** measures changes in the diameter of the pupils of the respondent's eyes. The respondent is asked to look at a screen on which an advertisement or other stimulus is projected. Image brightness and distance from the respondent's eyes are held constant. Changes in pupil size are interpreted as changes in cognitive (thinking) activity resulting from exposure to the stimulus. The underlying assumption is that increased pupil size reflects interest and positive attitudes towards the stimulus.[32]

Psycho-galvanometer
An instrument that measures a respondent's galvanic skin response.

Galvanic skin response
Changes in the electrical resistance of the skin that relate to a respondent's affective state.

The **psycho-galvanometer** measures **galvanic skin response** (GSR) or changes in the electrical resistance of the skin.[33] The respondent is fitted with small electrodes that monitor electrical resistance and is shown stimuli such as advertisements, packages and slogans. The theory behind this device is that physiological changes such as increased perspiration accompany emotional reactions. Excitement leads to increased perspiration, which increases the electrical resistance of the skin. From the strength of the response, the researcher infers the respondent's interest level and attitudes toward the stimuli.

Voice pitch analysis
Measurement of emotional reactions through changes in the respondent's voice.

Voice pitch analysis measures emotional reactions through changes in the respondent's voice. Changes in the relative vibration frequency of the human voice that accompany emotional reaction are measured with audio-adapted computer equipment.[34]

Response latency
The amount of time it takes to respond to a question.

Response latency is the time a respondent takes before answering a question. It is used as a measure of the relative preference for various alternatives.[35] Response time is thought to be directly related to uncertainty. Therefore, the longer a respondent takes to choose between two alternatives, the closer the alternatives are in terms of preference. On the other hand, if the respondent makes a quick decision, one alternative is clearly preferred. With the increased popularity of computer-assisted data collection, response latency can be recorded accurately and without the respondent's awareness.

Use of eye-tracking monitors, pupilometers, psycho-galvanometers and voice pitch analysers assumes that physiological reactions are associated with specific cognitive and affective responses. This has yet to be clearly demonstrated.[36] Furthermore, calibration of these devices to measure physiological arousal is difficult, and they are expensive to use. Another limitation is that respondents are placed in an artificial environment and know that they are being observed.

Audit

In an audit, the researcher collects data by examining physical records or performing inventory analysis. Audits have two distinguishing features. First, data are collected personally by the researcher. Second, the data are based upon counts, usually of physical objects. Retail and wholesale audits conducted by marketing research suppliers were discussed in the context of secondary data (see Chapter 4). Here we focus on the role of audits in collecting primary data. In this respect, an important audit conducted at the consumer level, generally in conjunction with one of the survey techniques, is the **pantry audit**. In a pantry audit, the researcher takes an inventory of brands, quantities and package sizes in a consumer's home, perhaps in the course of a personal interview. Pantry audits greatly reduce the problem of untruthfulness or other forms of response bias. Obtaining permission to examine consumers' pantries can be difficult, however, and the fieldwork is expensive. Furthermore, the brands in the pantry may not reflect the most preferred brands or the brands purchased most often. Moreover, similar data can be obtained from scanned data more efficiently. For these reasons, pantry audits are no longer commonly used; audits are more common at the retail and wholesale level.

Pantry audit
A type of audit where the researcher inventories the brands, quantities and package sizes of products in a consumer's home.

Content analysis

Content analysis is an appropriate method when the phenomenon to be observed is communication, rather than behaviour or physical objects. It is defined as the objective, systematic and quantitative description of the manifest content of a communication.[37] It includes observation as well as analysis. The unit of analysis may be words (different words or types of words in the message), characters (individuals or objects), themes (propositions), space and time measures (length or duration of the message) or topics (subject of the message). Analytical categories for classifying the units are developed, and the communication is broken down according to prescribed rules. Marketing research applications involve observing and analysing the content or message of advertisements, newspaper articles, television and radio programmes and the like. For example, the frequency of appearance of ethnic minorities and women has been studied using content analysis. In the GlobalCash Project, content analysis may be used to analyse magazine advertisements of the sponsoring and competing banks to compare their projected images. A crucial requirement to the success of content analysis is that the categories are sufficiently precise to enable different coders to arrive at the same results when the same body of material (e.g. advertising copy) is examined.[38]

In qualitative research, content analysis is one of the classical procedures for analysing textual material. The text being analysed may come from the narrative held in brochures or advertising copy through to dialogues held in interview data. Primarily the objective of content analysis is to 'reduce' the data, to simplify by summarising and structuring the data according to rules derived from existing theory. In effect, therefore, content analysis should be classified as a quantitative technique based upon classifying and 'counting'.

Trace analysis

An observation method that can be inexpensive if used creatively is **trace analysis**. In trace analysis, data collection is based on physical traces, or evidence, of past behaviour. These traces may be left by the respondents intentionally or unintentionally. Several innovative applications of trace analysis have been made in marketing research.

- The selective erosion of tiles in a museum indexed by the replacement rate was used to determine the relative popularity of exhibits.
- The number of different fingerprints on a page was used to gauge the readership of various advertisements in a magazine.
- The position of the radio dials in cars brought in for service was used to estimate share of listening audience of various radio stations. Advertisers used the estimates to decide on which stations to advertise.
- The age and condition of cars in a car park were used to assess the affluence of customers.
- The magazines people donated to charity were used to determine people's favourite magazines.
- Internet visitors leave traces that can be analysed to examine browsing and usage behaviour through **cookie technology**.

A comparative evaluation of observation techniques

A comparative evaluation of the observation techniques is given in Table 10.3. The different observation techniques are evaluated in terms of the degree of structure, degree of disguise, ability to observe in a natural setting, observation bias, measurement and analysis bias, and additional general factors.

Table 10.3 A comparative evaluation of observation techniques

Criteria	Personal observation	Electronic observation	Audit	Content analysis	Trace analysis
Degree of structure	Low	Low to high	High	High	Medium
Degree of disguise	Medium	Low to high	Low	High	High
Natural setting	High	Low to high	High	Medium	Low
Observation bias	High	Low	Low	Medium	Medium
Analysis bias	High	Low to medium	Low	Low	Medium
General remarks	Most flexible	Can be intrusive	Expensive	Limited to communications	Limited traces available

Structure relates to the specification of what is to be observed and how the measurements are to be recorded. As can be seen from Table 10.3, personal observation is low, trace analysis is medium, and audit and content analysis are high on the degree of structure. Electronic observation can vary widely from low to high, depending on the techniques used. Techniques such as optical scanners are very structured in that the characteristics to be measured – for example, characteristics of items purchased scanned in supermarket checkouts – are precisely defined. In contrast, electronic techniques, such as the use of hidden cameras to observe children at play with toys, tend to be unstructured.

The degree of disguise is low in the case of audits as it is difficult to conceal the identity of auditors. Personal observation offers a medium degree of disguise because there are limitations on the extent to which the observer can be disguised as a shopper, sales assistant, employee and so forth. Trace analysis and content analysis offer a high degree of disguise because the data are collected 'after the fact', that is, after the phenomenon to be observed has taken place. Some electronic observations such as hidden cameras offer excellent disguise, whereas others, such as the use of psycho-galvanometers, are very difficult to disguise.

The ability to observe in a natural setting is low in trace analysis because the observation takes place after the behaviour has occurred. It is medium in the case of content analysis because the communication being analysed is only a limited representation of the natural phenomenon. Personal observation and audits are excellent on this score because human observers can observe people or objects in a variety of natural settings. Electronic observation techniques vary from low (e.g. use of psycho-galvanometers) to high (e.g. use of turnstiles).

Observation bias is low in the case of electronic observation because a human observer is not involved. It is also low for audits. Although the auditors are humans, the observation usually takes place on objects and the characteristics to be observed are well defined, leading to low observation bias. Observation bias is medium for trace analysis and content analysis. In both these techniques, human observers are involved and the characteristics to be observed are not very well defined. The observers typically do not interact with human respondents during the observation process, however, thus lessening the degree of bias. It is high for personal observation due to the use of human observers who interact with the phenomenon being observed.

Data analysis bias is low for audits and content analysis because the variables are precisely defined, the data are quantitative, and statistical analysis can be conducted. Trace analysis has a medium degree of bias as the definition of variables is not very precise. Electronic observation techniques can have a low (e.g. scanner data) to

medium (e.g. hidden camera) degree of analysis bias. Unlike personal observation, the bias in electronic observation is limited to the medium level due to improved measurement and classification, because the phenomenon to be observed can be recorded continuously using electronic devices.

In addition, personal observation is the most flexible, because human observers can observe a wide variety of phenomena in a wide variety of settings. Some electronic observation techniques, such as the use of psycho-galvanometers, can be very intrusive, leading to artificiality and bias. Audits using human auditors tend to be expensive. Content analysis is well suited for and limited to the observation of communications. As mentioned earlier, trace analysis is a method that is limited to where consumers actually leave 'traces'. This occurs infrequently and very creative approaches are needed to capture these traces.

Evaluating the criteria presented in Table 10.3 helps to identify the most appropriate observation technique, given the phenomena to be observed, the nature of respondents being observed and the context in which the observation occurs. To strengthen the choice of a particular observation technique, it is also helpful to compare the relative advantages and disadvantages of observation versus survey techniques.

Advantages and disadvantages of observation techniques

Other than the use of scanner data, few marketing research projects rely solely on observational techniques to obtain primary data.[39] This implies that observational techniques have some major disadvantages compared with survey techniques. Yet these techniques offer some advantages that make their use in conjunction with survey techniques quite fruitful.

Relative advantages of observation techniques

The greatest advantage of observational techniques is that they permit measurement of actual behaviour rather than reports of intended or preferred behaviour. There is no reporting bias, and potential bias caused by the interviewer and the interviewing process is eliminated or reduced. Certain types of data can be collected only by observation. These include behaviour patterns which the respondent is unaware of or unable to communicate. For example, information on babies' toy preferences is best obtained by observing babies at play, because they are unable to express themselves adequately. Moreover, if the observed phenomenon occurs frequently or is of short duration, observational techniques may cost less and be faster than survey techniques.

Relative disadvantages of observation techniques

The biggest disadvantage of observation is that the reasons for the observed behaviour may be difficult to determine because little is known about the underlying motives, beliefs, attitudes and preferences. For example, people observed buying a brand of cereal may or may not like it themselves; they may be purchasing that brand for someone else in the household. Another limitation of observation is the extent to which the researcher is prepared to evaluate the extent of their own bias, and how this can affect what they observe. In addition, observational data can be time-consuming and expensive to collect. It is also difficult to observe certain forms of behaviour such as personal activities that occur in the privacy of the consumer's home. Finally, in some cases such as in the use of hidden cameras, the use of observational techniques may border on being or may actually be unethical. It can be argued that individuals being observed should be made aware of the situation, but this may cause them to behave in a contrived manner.

International marketing research

The selection of appropriate interviewing techniques is much more difficult in foreign countries because of the challenges of conducting research there. Given the differences in the economic, structural, informational, technological and socio-cultural environment, the feasibility and popularity of the different interviewing techniques vary widely. In the United States and Canada, for example, the telephone has achieved almost total penetration of households. Consequently, telephone interviewing is a dominant mode of questionnaire administration. The same situation exists in some European countries, such as Sweden. In many other European countries, however, the telephone interview gets confused with telephone sales. This results in high refusal rates and scepticism of what the purpose of a survey is. In developing countries, the problem with the telephone is the low number of households that have telephones.

Because of the low cost, mail interviews continue to be used in most developed countries where literacy is high and the postal system is well developed, for example in Britain, Canada, Denmark, Finland, Iceland, the Netherlands, Norway, Sweden and the United States. In many parts of Africa, Asia and South America, however, the use of mail surveys and mail panels is low because of illiteracy and the large proportion of the population living in rural areas.

The following example illustrates how CAPI technology has developed to allow consistent approaches to survey techniques across Europe. It shows that, by developing an appreciation of the cultural differences between countries, a research design can be built that allows accurate and comparable surveys to be conducted.

example

CAPIBUS Europe [40]

The concept of the International Omnibus is not new; many research groups offer an international service. In reality, however, these have been little more than brokering services, bolting together whatever omnibus is available in each country, with little real standardisation.

Research Services Limited and the IPSOS group have tackled this problem by calling on the benefits of CAPI technology to introduce CAPIBUS Europe, a weekly omnibus survey covering the six major markets of Europe (Britain, France, Germany, Italy, Netherlands and Spain).

The use of computer technology means that questionnaires can be scripted in one location and transmitted electronically to other countries. While the need to ensure accurate translation remains, the problems involved in having different questionnaire formats, classification systems and data maps are minimised. At the end of a project, data are again transmitted electronically, to be aggregated by the lead agency in a standardised format for all markets. This can then be weighted to provide information on the European market as well as for each local market. ■

Selection of survey techniques

No questionnaire administration method is superior in all situations. Table 10.4 presents a comparative evaluation of the major modes of collecting quantitative data in the context of international marketing research. In this table, the survey techniques are discussed only under the broad headings of telephone, personal, mail and electronic interviews. The use of CATI, CAPI, electronic survey and mail panels depends heavily on the state of technological development in the country. Likewise, the use of street interviewing is contingent upon the dominance of shopping centres in the retailing environment.

Table 10.4 A comparative evaluation of survey techniques for international marketing research

Criteria	Telephone	Personal	Mail	Electronic
High sample control	+	+	–	–
Difficulty in locating respondents at home	+	–	+	+
Inaccessibility of homes	+	–	+	+
Unavailability of a large pool of trained interviewers	+	–	+	+
Large population in rural areas	–	+	–	–
Unavailability of maps	+	–	+	+
Unavailability of current telephone directory	–	+	–	+
Unavailability of mailing lists	+	+	–	+
Low penetration of telephones	–	+	+	–
Lack of an efficient postal system	+	+	–	+
Low level of literacy	–	+	–	–
Face-to-face communication culture	–	+	–	–
Poor access to computers and Internet	+	+	+	–

Note: A + denotes an advantage, and a – denotes a disadvantage

Ethics in marketing research

Respondent anonymity was discussed in the context of qualitative research in Chapter 8. It was argued then that large samples could 'hide' the specific answers of individual respondents. This is true to some extent but respondents may still be identifiable. It is up to the marketing researcher to protect a respondent's identity and not disclose it to anyone outside the research organisation, including the client. The client is not entitled to see the names and contact details of respondents. The only instance where respondents' identity can be revealed to the client is when respondents are notified in advance and their consent is obtained prior to administering the survey. Even in such situations, the researcher should have the assurance that the respondents' trust will be kept by the client and their identities will not be used in a sales effort or misused in other ways.

Special care must be taken to ensure that any record which contains a reference to the identity of an informant is securely and confidentially stored during any period before such reference is separated from that record and/or destroyed.[41] Ethical lapses in this respect by unscrupulous researchers and marketers have resulted in a serious backlash for marketing research. The result has been a consistent fall in the levels of response rate, to all forms of survey method. This reinforces the message that considering the needs of survey respondents makes sound research sense as well as being ethically sound. Dubious practices may generate a response for a single survey but may create long-term damage to the marketing research industry.

Another issue facing the marketing research industry is image, as the public may not distinguish between telephone research and telemarketing. This identity crisis is exacerbated by the action of some firms to commit 'sugging and frugging', industry terms for selling or fund-raising under the guise of a survey. The damage done to the marketing research industry by the unethical use of survey research as a guise for targeting sales effort was discussed in Chapter 1. The overall effect of these

activities has given a poor image in particular to telephone research, raising the cost and making it difficult for researchers to obtain full and representative samples.

Although concerns for the respondents' psychological well-being are mild in survey data collection when compared with either qualitative or experimental research, researchers should not place respondents in stressful situations. Disclaimers such as 'there are no correct responses; we are only interested in your opinion' can relieve much of the stress inherent in a survey. In many face-to-face interview situations, respondents are given a 'thank you booklet' at the end of the interview. As well as saying a genuine thank you for taking part in a survey, the booklet briefly sets out the purpose and benefits of bona fide marketing research. The use of the 'thank you booklet' helps to educate the public to distinguish between genuine, professionally conducted marketing research and 'research' conducted as a front for generating sales leads.

Observation of people's behaviour without their consent is often done because informing the respondents may alter their behaviour.[42] But this can compromise the privacy of the respondents. One guideline is that people should not be observed for research in situations where they would not expect to be observed by the public. Therefore, public places like a shopping centre or a grocery aisle are fair game. These are places where people observe other people routinely. However, notices should be posted in these areas stating that they are under observation by marketing researchers.

With the growth of mystery shopping, where the essence of the technique is that service deliverers cannot spot the observer, the debate over what is ethical practice has intensified. The following example taken from a seminar on mystery shopping illustrates some of the issues that the marketing research industry considers vital to debate for the future 'health' of the technique.

<table>
<tr><td>*e x a m p l e*</td><td>**The ethical puzzle of mystery shopping**[43]</td></tr>
</table>

'For us to believe we can do this without some form of public outrage would make us very naive indeed.' This was the statement of Professor Roger Jowell to delegates attending the joint Social Research Association/Market Research Society Seminar on mystery shopping.

Mystery shopping has been going on for years in one form or another but was formally originated in the USA in the early 1970s. The definition of mystery consumer research used at the seminar states: 'The use of individuals *trained* to observe . . . by acting as a prospective customer.' Whether the individuals should be trained or not brought heated discussion, some suggesting that training would not encourage the shopper to act 'naturally' while others felt training was necessary in some form or another.

The contentious issue of competitive videoing was debated. One agency director said 'this is fly on the wall journalism' and clients should go to a production company rather than a marketing research agency. One agency had been asked by a client to mystery shop competitors only and, on turning to their code of conduct, found that there was nothing to stop them going ahead with this course of action.

Professor Jowell likened competitive shopping to industrial espionage, at which point Shirley Featherstone, Field Director of ACE Fieldwork, suggested that unlike industrial espionage, mystery shopping is information that is in the public domain.

Colin Brown, an independent consultant, explained that traditionally mystery shopping has been used:

■ to campaign on public issues with which they have been able to make changes,
■ as a monitor within companies to assess staff performance.

He then pointed to the latest tradition, that of enforcement, which results in people losing their jobs. ■

The final point in the above example graphically illustrates how important ethical issues are in conducting marketing research. If potential respondents perceive marketing research as a means to generate sales and 'snoop' on service delivery practices, then the goodwill needed to generate full and honest responses will wither. ESOMAR have specific guidelines to help with issues in mystery shopping, which can be seen on **www.esomar.nl/guidelines/mysteryshopping.htm.**

Internet and computer applications

We begin this section with a description of a technological development that may have profound effects upon how CAPI is undertaken. We then move on to broader Internet and computer issues.

A major technological development that has affected the conduct of CAPI has been Personal Digital Assistants (PDAs). PDA is the generic title for a range of devices, from the ubiquitous PalmPilot from 3Com to the Pocket PCs from manufacturers such as Hewlett Packard and Compaq. Essentially they are computers with a small touch-screen that fit in your hand.

Recent developments have included colour screens, and increasingly telecommunications are being added to new models being released. 2002 has seen the first appearances of PDAs that merge both a mobile phone and a mobile computer. This will extend their functionality and take-up even further, and might see the end of the mobile phone as we know it today.

Marketing research applications for PDAs started to appear in 2001, with Techneos (**www.techneos.com**) producing a specific product for the PalmPilot. Other software developers have opted for the Pocket PCs using variations of Windows CE from Microsoft. These have included SNAP, **www.snapsurveys.com.** The logic of basing mobile interviewing on Windows-based products has been that software authors are less dependent on the fortunes of a single vendor of hardware.

The main benefits of using PDAs over the more traditional CAPI laptop or even the traditional paper and pencil clipboard solution are:

- Low cost
- Portability
- The fact that they are seen as a technology-based solution and in certain market sectors this is important.

Moving to broader issues, two factors dominate the computer-related aspects of the survey process:

1 It is now likely that 99% of all quantitative surveys today include an element of IT at some stage in their life cycle. This may be simply for the questionnaire design stage or for the presentation of results. However, the computer is increasingly involved in many stages of the survey process – questionnaire design and printing, preparation of CATI scripts, publication of online surveys, collecting of email responses, scanning of paper questionnaires, keying of replies, data validation, cleaning and verification, data analysis and presentation, electronic distribution of survey results, and integration of results into office products, to name but a few.

2 Surveys increasingly involve more than one method of data collection. A survey might be designed for the Web, but respondents may be emailed a paper version to view the questions, and asked to complete offline if access to the Web is not possible. Surveys are increasingly being designed to incorporate alternative scenarios, perhaps using interviewers with PDAs alongside mailed questionnaires for self-completion.

The result is that researchers are becoming more sophisticated in their IT requirements. They are now less likely to outsource the entire process to the DP department or an outside agency, and will need to be more heavily involved in the IT process than they were perhaps 10 years ago. This is certainly a beneficial development, as the researcher will acquire a far better understanding of the principles of survey design and analysis.

The increased use of multiple data collection methods may, however, present a further dilemma. On the one hand, an array of different software packages can be used. This approach is likely to generate surveys that are rich in their list of features, but possibly a nightmare to integrate. On the other hand, a single software package may be used that is capable of handling the range of options being requested. This approach may generate a solution that is easier to manage and operate, but possibly less rich in its presentation.

Internet surveys are gaining in popularity and have great potential for the marketing research industry. One reason is that the cost in most cases is less than that of personal, telephone or mail surveys. The cost of designing online surveys (with graphics, colour, buttons, routing, etc.) is likely to be higher than for a standard paper questionnaire, but the cost of data collection and preparation will be greatly reduced. Also, an Internet survey is not as intrusive as a phone call in the middle of dinner or at other inconvenient times. The online survey can be completed in one's own time, place and pace. Quick response time is another advantage cited by those producing online surveys. It is not true, however, that response rates are increased by using online surveys. Indeed, they have been shown to be no more successful than any other method if no follow-up reminders are included.[44]

Internet surveys can be used to target specific populations or potential target markets. There is a growth of specialist directories that include email and Internet addresses, but these are likely to be even less reliable than telephone directories, as online users frequently change their email addresses. Unlike telephone numbers, which do at least result in somebody answering, routing to a voicemail or simply responding as 'unobtainable', invalid email addresses simply bounce back. There is no indication as to whether the address has been misspelt, whether that person still exists at that email address, or whether the email address itself any longer exists. With no way to speak to a human at the end of an email address, the researcher is faced with a lost opportunity.

It has been argued that the use of the Internet to conduct marketing research is more revolutionary than other technological developments such as CATI or CAPI. Practitioners argue that the Internet has fundamentally changed the way that marketing researchers design questionnaires, collect data and analyse it.[45] The Internet is a visual medium: it allows respondents to see images, long text messages, long lists of response options and, as bandwidth grows, video images. It captures the unedited view of the respondent, eliciting responses to open-ended questions that are long, rich and revealing. It may be more effective in addressing sensitive issues; adults may be more willing to reveal information about their experiences of sensitive medical conditions, for example.

▶

The downside of the Internet is its representativeness of broader populations. It is extremely difficult to conduct probability sampling, and the respondent population depends mostly on 'volunteer' or convenience sampling (see Chapter 14 for a full discussion of the sampling implications). Another limitation is the verification of who is actually responding to the survey. The absence of a human facilitator to motivate participants, security and privacy are also areas of concern.

There are also ethical considerations in conducting surveys on the Internet that primarily concern the fact that it is so inexpensive to use and difficult to regulate. This means that it can be open to misuse by less experienced or less scrupulous organisations, often based outside the research industry. Any Internet surveys which fall seriously below the high standards promoted by ESOMAR and other leading professional bodies make it more difficult to use the medium for research and could seriously damage the credibility of such research, as well as being an abuse of the goodwill of Internet users generally. ESOMAR have specific guidelines that address the use of the Internet to protect the interests both of Internet respondents and of the users of Internet research findings. These can be accessed on **www.esomar.nl/guidelines/internet_guidelines.htm.**

Visit **www.mercator.co.uk** to review the SNAP survey software, **www.camsp.com** to see Keypoint2, **www.sawtooth.com** (click on the PC-based interviewing mode Ci3), **www.voxco.com** for Web, CATI and CAPI software in English and French formats, and **www.scolari.co.uk** and click on SphinxSurvey and **www.askia.com** for the Askia survey software. On all these sites you will be able to see an array of applications of survey software and to download demo versions.

Summary

The two basic means of obtaining primary quantitative data in descriptive research are through survey and observation techniques. Survey involves the direct questioning of respondents, while observation entails recording respondent behaviour or the behaviour of service deliverers.

Surveys involve the administration of a questionnaire and may be classified, based on the method or mode of administration, as (1) traditional telephone interviews, (2) Computer Assisted Telephone Interviews (CATI), (3) in-home or in-office personal interviews, (4) street interviews, (5) Computer Assisted Personal Interviews (CAPI), (6) traditional mail surveys, (7) mail panels, (8) email surveys, and (9) Internet surveys. Of these techniques, CATI, CAPI and Internet surveys have grown enormously in their use in developed Western economies. Each method has some general advantages and disadvantages, however. Although these data collection techniques are usually thought of as distinct and 'competitive', they should not be considered to be mutually exclusive in much the same manner as using quantitative and qualitative techniques should not be considered to be mutually exclusive. It is possible to employ them productively in combination.

Quantitative observational techniques may be classified as structured or unstructured, disguised or undisguised, and natural or contrived. The major techniques are personal observation (including mystery shopping), electronic observation, audit, content analysis and trace analysis. Compared with surveys, the relative advantages of observational techniques are that they permit measurement of actual behaviour, there is no reporting bias, and there is less potential for interviewer bias. Also, certain types

of data can best, or only, be obtained by observation. The relative disadvantages of observation are that very little can be inferred about motives, beliefs, attitudes and preferences, there is a potential for observer bias, most techniques are time-consuming and expensive, it is difficult to observe some forms of behaviour, and questions of ethical techniques of observation are far more contentious. Observation is rarely used as the sole method of obtaining primary data, but it can be usefully employed in conjunction with other marketing research techniques.

In collecting data from different countries, it is desirable to use survey techniques with equivalent levels of reliability rather than to use the same method. Respondents' anonymity should be protected, and their names should not be turned over to the clients. People should not be observed without consent for research in situations where they would not expect to be observed by the public. Practitioners argue that the Internet has fundamentally changed the way that marketing researchers design questionnaires, collect survey data and analyse it.

Questions

1 With a context of the survey researcher imposing their language and logic upon potential respondents, what do you see as being the advantages and disadvantages of conducting surveys?

2 Discuss the dilemma faced by the survey designer who wishes to develop a survey that is not prone to interviewer bias but also sees that interviewer rapport with respondents is vital to the success of the survey.

3 Evaluate the reasons why response rates to industrial surveys are declining.

4 Why do interviewers need to probe respondents in surveys? What distinguishes survey probing from probing conducted in qualitative interviews?

5 What are the relevant factors for evaluating which survey method is best suited to a particular research project?

6 What are the distinct advantages of conducting a survey using CAPI technology compared to traditional paper questionnaires?

7 What are the key advantages of conducting interviews on the Internet? Evaluate the potential that this technique holds for the future.

8 How would you classify mystery shopping as an observation technique? Why would you classify it in this way?

9 How may electronic observation techniques be used in supermarkets?

10 Explain, using examples, where content analysis may be used.

11 Describe the criteria by which you would evaluate the relative benefits of different observation techniques.

12 What is the difference between qualitative and quantitative observation?

13 Describe the relative advantages and disadvantages of observation.

14 Describe a marketing research problem in which both survey and observation techniques could be used for obtaining the information needed.

15 What do you see as being the main ethical problems of mystery shopping?

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