

# Chapter 6

## Introduction to Quantitative Research

### Introduction

In this chapter you will learn about:

- The use of quantitative research for customer satisfaction measurement, customer segmentation and measuring customer attitudes.
- The three main methods of quantitative research – direct measurement, self-completion surveys and interviewing.
- The role of the interviewer in quantitative research and how interviewers win cooperation from respondents.
- The role of the questionnaire in quantitative research and how it can make or break an interview.

### Matching quantitative research to the objectives

Faced with a marketing problem, the researcher has to decide how to solve it. Take for example a company that wants to carry out a customer satisfaction survey to find out where it is doing well and where it needs to improve. This is clearly a survey requiring measurement – therefore it is a quantitative study. However, before it can start, the researcher needs to find out what attributes should be measured for importance and satisfaction. A discussion with the sales force will help but it may not be enough. The sales team lives

close to the subject and could be biased. Depth interviews or even a focus group may be required before the quantitative project begins.

It is quite normal for a research project to need multi-phase research to deal fully with the problem, and this is known as multi-method research design. The most common example of this is a client who first needs to explore a problem, and then wants to carry out some conclusive research, to help make a sound business decision to tackle that problem.

There will be implications for both the timetable and the budget in carrying out qualitative research before hand. Quantitative research, because it involves large numbers of interviews, is likely to be the most expensive part of the total project. However, qualitative research employs specialists and this makes it *relatively* expensive.

It would be hard to envisage developing a discussion guide, booking interviews, doing the depth interviews, analyzing them and presenting the findings in less than three or four weeks. This would mean that to carry out a qualitative stage as a precursor to the quantitative research could put pressure on the timing if results for the whole programme are needed for a certain date.

*Key point*

**Qualitative and quantitative research techniques are not mutually exclusive. Both types of research are often carried out with qualitative methods giving the insights and quantitative research the measurements.**

This pressure on timing and costs can lead to the temptation to skip one or other of the stages. Maybe the qualitative research alone will help us see the problems we should be addressing. Maybe we can skip the qualitative stage and move straight into quantitative if we think we know the questions we should be asking. There is an obvious danger that decisions could be made that cut corners and therefore put the integrity of the research at risk.

Quantitative research enables us to obtain three different classifications of numbers: *market measures, customer profiles (or segmentation data) and attitudinal data.*

*Market measures* quantify and describe a market. Common examples include; market and sector size, shares of the market held by suppliers or brands, penetration levels (what proportion of all potential consumers own or buy a product), purchase and consumption frequencies, patterns of consumption and seasonality. Data of this type is essential for any manager developing or reviewing a marketing plan for a com-

pany, product group or brand. They can be obtained at various levels of the market – when people are buying (eg through interviews with consumers), but also at the point of manufacture or at the point of distribution (which would entail business to business interviews). Market measures taken from a sample are generally projected or grossed up to the total market or population. For example, to find out the market size for a breakfast cereal we could sample the population to find out how many people eat breakfast and in particular this type of cereal and then gross up by the population numbers to arrive at estimates of the total consumption.

*Customer profiling* occupies a good deal of researchers' time. What type of people or organisations are the customers and potential customers? What types of products or services do they own or use? Customer profiling is quantitative in nature because reliable breakdowns are needed for the whole market or population. If a survey indicates that amongst the sample interviewed, the large majority of people with gas wall heaters are in social classes D and E and live in older houses, we need to be confident, if we are to use the data in marketing planning, that this is the case for the whole population. Profiling data can take various forms:

- socio-demographics (age, sex, income and occupation group, education level, home tenure etc),
- geodemographics (the types of housing areas in which people live or for business research, the classifications such as company size, geographical location, industry etc)
- consumer behaviour (frequency of buying a product, frequency of switching brands etc)
- ownership of various products (numbers and brands of products owned)
- attitudes (to products or brands).

Unlike market measures, consumer profiling data can only be collected from consumers – in other words the people or companies that are buying the products.

### *Think about*

How do you segment your customers? When did you last consider this segmentation? How could you segment your customers on their needs? How could research help you do this?

*Attitudinal data* is used in a quite general sense to cover issues such as awareness, perceptions, beliefs, evaluations, preferences and propensities to buy products. Attitudes are therefore subjective and are in the minds of individuals. They are perceptions, but since these influence purchasing habits, they are extremely important. For this reason, a good deal of market research is concerned with the measurement of attitudes.

Similarly, attitudes are taken to be a predictor of future behaviour. Preferences between real products or concept bundles can, with appropriate analysis, lead to predications on what will actually happen in the market including the consequences of changing some element of the marketing mix such as the price or product quality.

Attitudes are also very much the subject of qualitative research which is often concerned to identify which categories of attitudes effects customer choice. In quantitative research, however, the focus is on establishing the degree to which specific attitudes exist amongst the market and population. People have attitudes to brands and this can markedly affect their behaviour. Measuring brand awareness and brand loyalty are important roles of quantitative research.

Qualitative research may have revealed some doubts about people's attitudes to a particular brand, but what proportion of potential consumers hold such negative views and how does this link the purchase frequency? Various techniques are used to measure attitudes but in one form or another scalar measurement is the usual tool (see also the chapter on questionnaire design).

### *Think about*

How is your organisations' corporate brand positioned? What are its brand values? To what extent do these affect people's attitude to doing business with your company? How does it affect the prices of your products? What could qualitative research tell you about your brand? What could quantitative research tell you about your brand?

## **The major quantitative research techniques**

There are three major methods of obtaining quantification of attitudes or behaviour in a population:

- direct measurement
- self-completion
- interviewing (phone and face to face).

## Direct measurement

Many companies need to regularly measure the position of their brands in the market place. Manufacturers of fast moving consumer goods (fmcg) such as chocolate bars or soap powder, obtain these measures through retail audits.

In a retail audit, a representative sample of retail outlets is taken (including different types and sizes of outlet with the final data broken down between these classifications) and the sales are established for relevant brands and products. The data from the outlets is then aggregated and grossed up to represent the whole market.

Audits were first used in the 1930s and were one of the first major methods of market research data collection giving rise to such large companies as AGB (Audits of Great Britain) and Nielsen. In the first instance the audits were carried out by staff visiting the outlets where a count was made of the stock levels of products at two points in time. Then the difference plus deliveries (taken from delivery notes etc) was considered to be the sales over the period. The counting was labour intensive and expensive.

In the 1990s stock counts in retail auditing were replaced by EPOS (electronic point of sale) data. This allows data to be measured through electronic scanning of bar codes at the tills for each and every product bought and thereby providing information to tightly control stock levels, purchasing, shelf space etc as well as facilitating efficient check-outs. EPOS data offers increased accuracy (eg no more lost delivery notes), more frequent measurement (hourly if need be) and many other benefits (eg cross relating items purchased). Much retail auditing is, therefore, now based on EPOS data with the major research companies involved securing access to retailers' own databases.

Retail audits, whilst not conceptually complex, are a major organisational undertaking, complicated in some respects by EPOS. They are consequently carried out by only a few specialised companies. The costs involved are high and the data is largely syndicated. Retail audits are also on-going and, therefore, continuous as opposed to ad hoc research.

Another method of direct measurement is TV audience research. Today the most common method of measuring television viewing is through “peplemeters” which are electronic devices that sit on a television and feed a data storage unit, also in the household, which in turn is linked to the telephone so it can transmit viewing data back to the market research company’s central computer. In any one television region (or even a small country) a panel of around 400 households is signed up to have peplemeters installed on their TVs. In the homes that are equipped with the peplemeters, the viewers use remote control units to indicate who is watching the television and what they think of the programmes.

Another method of direct measurement is *mystery shopping*. (See also Chapter 5 where this is also covered as a qualitative method). Service levels in retail outlets can be measured by interviewing customers. However, customer’s recall may lapse or they may forget to mention small and important points of detail. An alternative is to observe and record what actually happens in the outlets. This is carried out by research staff posing as customers. The Market Research Society Code Of Ethics offers guidance on this method, recommending that only the outlets of the sponsoring client can be mystery shopped. In other words, Ford could mystery shop its own car dealers but not those of any other car franchise as this would be knowingly wasting their time (since there is never any intention that the mystery shopper will buy a car, they simply pretend to do so). Arguably this technique, which relies on researcher observation, is less “direct” than retail audits through EPOS which deals in objective data collection, without the interviewer’s opinions.

Other sorts of observations are also used occasionally in market research – eg traffic counts and in poster research.

## Self-completion surveys

Self completion surveys have traditionally been carried out by posting questionnaires to the target audience coupled with a strong incentive to persuade people to reply. As the penetration of internet access continues to increase across populations, researchers are making more use of web based surveys in which the respondent can complete the questionnaire on-line. This brings considerable advantages because routing and skip questions are handled automatically and the respondent can type in comments (with no problems of hard to read handwriting). The replies to the questionnaires are fed straight into the data analysis pot, eliminating data entry errors and removing a substantial cost. Self completion surveys work best with

groups of people who have a strong relationship with the product or service that is being researched. They are used, for example, amongst new house buyers who have a strong interest in sitting down for half an hour to twenty minutes to complete a questionnaire. They would not work so well if they sought information on a subject such as toilet rolls. If the interest level is low, researchers attempt to boost replies by offering prize draws or financial incentives.

Whether the self completion questionnaires are sent out via the post or on-line, they suffer from unpredictable and usually low levels of response. It is not unusual for only 10% of a population to reply. These respondents could represent an atypical group of complainers or enthusiasts. It would need an expensive survey of these non-respondents by telephone or face to face interview (as we know that mailed questionnaires do not get a response) and budgets do not allow for this check back.

Response rates of 30% and higher from a single mailing are quite common when the subject is about a new car or on behalf of a company with some apparent authority such as British Gas or one of the water companies. In contrast, respondents receiving a questionnaire through the post enquiring about the type of pen they use would most probably yield a low response, (less than 5 per cent is likely), because the subject is not compelling. It is difficult therefore to know if the results from a mailed questionnaire are representative of the whole population. Despite this limitation, nearly 7 million self-completion paper or web interviews are sent in for analysis in the UK each year<sup>5</sup> and this is equal to the number of face to face and telephone interviews taken together.

Postal surveys depend on suitable databases containing the correct names and addresses of respondents. If lists are out-of-date, contain inaccuracies in spelling of the names and addresses, or are made up of unsuitable respondents, the questionnaires will fall on stony ground and the response rates will be low. Returned and unopened envelopes will indicate that there are problems with the mailing list and could indicate the need for a check back to find out the true reply rate amongst valid respondents. Whilst check backs are useful, they substantially add to the cost and complexity of the study.

The shorter the questionnaire, the more likely it will be completed and returned. However, 40 questions carefully laid out on two sides of A3 (folded to make four pages of A4) can look less than 20 questions spread over six single pages. In general, the number of questions does not influence responses as much as the interest factor

and there are many example of questionnaires the size of booklets obtaining high response rates.

Respondents want to feel that their efforts in completing the questionnaire are valued. It is important, therefore, that the cover letter gives purpose to the study and convinces recipients that their replies really matter. Legitimacy influences response rates in all types of surveys and it is especially important in postal studies. If possible a benefit should be mentioned such as the promise of better products, improved service or a gift (or money).

Postal surveys which offer anonymity have a higher response than those where respondents must identify themselves. Much depends on the circumstances. In many business-to-business surveys, respondents may be happy to be identified as long as they are confident that the research is bone fide and not a surreptitious attempt at selling.

Response rates can be boosted by a second mailing. If the first mailing yields a 25 per cent response, a second one could draw a further 10-15 per cent. The researcher needs, therefore, to consider whether to send a second mailing to the non-respondents and accept the fall off in response rate or to draw up an extension to the first sample and achieve a 25 per cent response from a fresh list.

*Key point*

**Self-completion surveys work best when there is a strong relationship between the respondent and the subject. In such cases respondents will be motivated to complete the questionnaires and a high response rate will be achieved.**

Much depends on the importance of winning a high overall response rate. If a high rate from the given sample is critical, then a second mailing is justified and should take place about two weeks after the first. Time could, of course, be a prohibiting factor as the second mailing, together with the waiting time for the responses to come in, will add at least a further four weeks to the survey. It is preferable, though not essential, that the second mailing misses out those who have already returned a questionnaire. Eliminating the initial replies requires respondents to have identified themselves. Also, it is laborious removing respondents from the list if there are hundreds of names and addresses on the sample frame.

There are times of the year when a mailing will yield a poor response. The August holiday month and Christmas are obvious periods to avoid.

### Think about

Your Human Resources department is concerned about low morale amongst the workforce in your company which is resulting in a high staff churn and low productivity. They ask your advice about carrying out an employee survey. Your workforce is divided between shop floor staff who do not have access to computers or e-mail and office based staff who all have e-mail addresses. How would you organise the collection of data? What conditions could you offer to protect anonymity of responses? What measures would you take to obtain the maximum possible response?

## Interviewing

Figure 6.1 shows the numbers and type of interviews carried out by market research agencies that are members of the BMRA, the main body representing agencies in the UK.

Figure 6.1 **Methods Of Interviewing In The UK, 2000**

Method of Interviewing	Number of Interviews
Self-completion (post and internet)	6,800,000
Face to face (in home) interview	3,600,000
Telephone interview	3,600,000
Street interview	790,000
Hall test	440,000
Mystery shopping	330,000
<b>Total</b>	<b>15,560,000</b>

Source: *BMRA web site* (figures have been rounded)

Most of the information required in research projects can only be obtained through an administered interview with respondents. The choice between these methods is dependent on a trade-off between:

- what is practical with the target audience (do we have telephone numbers of the audience, do we need to show them anything?)
- costs and budgets (how much money do we have to spend on the research?)

- the timescale (when is the information required?).

Face to face interviews are used in both consumer and business to business research (for cost reasons, rather less in the latter) and may be carried out in “the street” – any public place – in respondents’ homes, at place of work (particularly relevant for business to business research) or special venues – eg where products can be shown as part of the interview (often referred to as “hall” tests).

Face to face interviews are still a favoured means of collecting primary information in many surveys for good reasons:

*Better explanations.* In face to face interviews respondents have more time to consider their answers and the interviewer can gain a deeper understanding of the validity of a response. Sometimes interviewers need to show advertisements, logos, headlines or samples and this is plainly suited to personal situations.

*Depth.* It is easier to maintain the interest of respondents for a longer period of time in face to face interviews. Being face-to-face with respondents gives the interviewer more control and refusals to answer questions are less likely than over the telephone. Concern about confidentiality can be more readily satisfied than with an ‘anonymous’ person at the end of a phone. An interviewer on the doorstep or in the High Street can show an identity card.

*Greater accuracy.* In a face to face interview respondents can look up information and products can be examined. If the interview is at a business, files of information can be referred to, or phone calls made to colleagues to confirm a point. The interviewer may be able to make a visual check to ensure that the answers are correct.

*Product placements.* Products placements can be sent through the post but it is usually better for them to be delivered by hand by the interviewer. Face-to-face contact with respondents permits a more thorough briefing on how to use the product. Pre-test questions can be asked, and arrangements can be made for the follow-up.

Against the advantages of face to face interviewing, there are a number of disadvantages:

*Organisation.* Face to face interviews are difficult to organise. If the interviews are country-wide, a national field force is required. The subject may be complex and demand a personal briefing which is expensive to arrange when interviewers are scattered geographically.

Monitoring and controlling face to face interviews is more difficult than with telephone interviews. Face to face interviews need to

have a supervisor in attendance for part of the time and check-backs, by visit or post, must be organised. For the most part, however, the interviewer is working in isolation and the quality of the work has a considerable dependency on the conscientiousness of the individual.

*Cost.* The cost of personal consumer interviews varies considerably between those carried out in the street and the home. In-home interviews based on pre-selected addresses are, in turn, more expensive than those to a quota. In general, street interviews cost the same to carry out as telephone interviews. In some cases, street interviews offer advantages over the telephone by allowing show cards and visuals, while at other times the facility to random sample and achieve complete geographical coverage could swing the benefits in favour of telephone interviewing.

*Time.* In-home interviews are time consuming because of the travel time between respondents (this is not the case, of course, when the interviews are carried out in the street). The prior commitments of the field force and the delays caused by questionnaires being mailed out and returned, normally mean that at least a two-week period is necessary for organising a face to face interviewing project. A month is more reasonable. A programme of business-to-business interviews may have less face to face interviews than a consumer study but they too take an inordinate time to organise as the researchers struggle to set up interviews in the diaries of busy managers.

The use of telephone research has grown rapidly so that in the year 2000 it was level pegging with face to face interviewing. Telephone interviewing is widely used in business to business research because virtually all business respondents are contactable by phone and are used to being contacted in this way.

The greatest advantages of the telephone against personal interviewing is its speed and low cost. These are most evident in business-to-business market research.

In favourable circumstances, perhaps five to six 20 minute interviews with managers in industry can be completed in a day over the telephone. In the same time only 1 or 2 interviews can be achieved face-to-face.

In consumer research the time and cost advantages of telephone interviewing are not quite so clear-cut. If the comparison is between street and telephone interviewing then there is probably little difference in either time or cost – in fact, street interviewing might

even be cheaper. However, when compared with in-home interviews, the telephone is both quicker and cheaper since there is no time wasted in travel between interview points.

Concerns about doorstep security also favour the telephone as an interviewing medium. Householders do not have to answer the door to a stranger while interviewers are saved the risk of entering dubious neighbourhoods. Not surprisingly, telephone interviewing is a far more popular data collection method in the US than in Europe.

### *Key point*

**The telephone has become one of the favoured tools for market research interviewing because it is quick and inexpensive. Compared with face to face interviews there is no loss of quality of information when simple questions are asked on behaviour and attitudes.**

We have seen that there are a number of strong arguments in favour of telephone interviews, with particularly important benefits in cost and speed. However, there are sometimes good reasons for *not* using telephone interviews. Visuals are difficult to use. If something *has* to be shown, then the telephone is not the right approach. Nor is the telephone suited when it is necessary to ask respondents to consider a number of pre-determined factors in order to test their views. More than five or six factors on a list are difficult to hold in the mind and so it is usual to show these on a card in order that they can be given fair consideration. The phone also invites an instant response and so does not encourage a fully considered and reflective answer. The answer is likely to be spontaneous and “off the top”. (Of course, this

can be an advantage in questions such as brand recall).

Despite these limitations, the advantages of the telephone in data collection are considerable and the method is likely to continue to make inroads against street and face-to-face interviews.

### *Think about*

You supply business machines (colour printers) to almost every type of business in the UK and have had two quotes from agencies for a customer satisfaction survey. One quote offers you 50 depth interviews which will be carried out face to face, the other offers 500 interviews by telephone. Which would you choose? What are the reasons for your choice?

## The role of the interviewer in quantitative research

The quality of data is heavily influenced by the standards of the interviewing fieldforce. In many surveys the variability and error in the data can be as much from bias in interviewing as from sampling error. These influences could be the result of not following the questionnaire wording or mis-recording responses. Most questionnaires used in quantitative research involve a predominance of pre-coded or closed questions and the layout of the response codes can help to minimise problems of mis-recording. More problematical, however, is the recording of open ended questions (eg – why did you buy this product?). Interviewers are instructed to record such responses “verbatim” but in practice they summarise the comment and there is no way of knowing whether what is recorded reasonably reflects the response given. Even the recording of apparently simple responses such as numbers can lead to problems; zeros missed off or decimal places moved. Minimising such problems is partly a matter of interviewer training and briefing although reducing the use of open-ended questions in a quantitative survey may be the more radical and sure solution.

Good project management attempts to limit the effect of these problems as well as keep research in tight financial and timescale control. In a large project there could be 20 to 30 interviewers carrying out the interviews and this reduces the chances of one interviewer’s bad practice significantly distorting the overall data. Comparisons of performance between the interviewers will quickly identify possible problems and more detailed checks can be made.

Much can be done to head off problems in interviewing by good training and briefings. The interviewer briefing is the occasion when interviewers are told who to contact and how to administer the interview. Undoubtedly personal briefings are to be preferred but it can be very expensive assembling an interviewing force that is scattered around the country. Normally well written briefing notes and sometimes taped briefings from the supervisors, suffice (briefing telephone interviewers is much easier as they are based in one location).

A significant bias that occurs in market research surveys arises from non-response. Over time, average response rates in market research have fallen and can be as low as 50%. If non-response was random, the problem would be of little consequence but it is not. Typically certain groups of potential respondents are less likely to respond than others – some neighbourhoods, for example, are now effectively no-go areas for face to face interviewing – and although

weighting methods can partly compensate, the problem leads to quite significant levels of data distortion.

Sometimes it is difficult to ascertain the true non-response rate. For example in street interviews we cannot be certain how many people take avoiding action by passing the interviewer on the opposite side of the road.

The interviewer can play an important role in ensuring that high levels of cooperation are achieved. Factors that affect cooperation are:

- the perceived legitimacy of the interview
- the benefits to the respondent of taking part
- the approach of the interviewer in being able to communicate an interest in the subject.

## Legitimacy

People are more inclined to take part in a survey if they believe that it is being carried out for a bona fide purpose. Members of the public want to know that the survey really is for the purposes of market research and not a cloaked approach to selling (market researchers refer to this as SUGGING or selling under the guise of market research). An interviewer with a Market Research Society accreditation card will offer that confidence.

Surveys carried out over the phone do not allow the interviewer to show their “card” and so they may use appropriate words to communicate that they are working under the rules of the Market Research Society Code Of Ethics which promises anonymity and confidentiality.

A business to business respondent is likely to be interested in knowing which organisation is sponsoring the research before giving information, some of which could be damaging to their interests if it got into the hands of a competitor.

## Benefits

In most of the market research interviews carried out in the UK, respondents do not receive payment for their trouble. Even when they do (as is the case of focus groups or in interviews with doctors) it is usually a modest sum.

Some subjects that are being researched are intrinsically interesting to respondents and this can play an important role in obtaining

cooperation. An interview about a recent car purchase is more interesting than one about writing paper.

Manufacturers of writing paper are just as likely to need market research as manufacturers of cars and they must seek “hooks” that persuade people to take part. Sometimes it is sufficient to remind people that this is their chance to tell manufacturers what is thought of their products so that improvements can be made. If there are no monetary incentives or promises of improved products and services, much could depend on the interviewer’s approach.

## The interviewer’s approach

Most people aren’t sat around waiting for an interviewer to call. They lead busy lives and must be persuaded that it is worth them parting with a few minutes of their time (more likely 15 minutes to half an hour) for no immediate gain.

The interviewer’s confidence and enthusiasm markedly affects cooperation levels. In the case of the street or home interview, the interviewer’s appearance and demeanour plays an important role. In telephone interviews, the voice is an obvious contributor to achieving cooperation.

### *Key point*

**Skilled interviewers are capable of working with badly designed questionnaires. However a good interviewer and a well designed questionnaire will always produce good research.**

A diffident or apologetic interviewer could make the respondent uneasy and less likely to cooperate.

The interviewer treads a fine line between persuasion, persistence and browbeating the respondent. Interviewers know that most interviews need ‘selling in’ and, when success is finally achieved, respondents actually quite enjoy the process.

Fieldwork quality is generally verified after completion. This usually involves a check-back to around 10% of respondents with key questions re-asked. Interviewers also need general training in how to work and this is a separate and prior issue to

briefing for a particular job; the minimum accepted training for a raw recruit is considered to be two to three days with follow-on close supervision. The need for training, briefing and verification also exists at the data processing stage and wherever else labour intensive tasks are carried out by staff not directly involved in the design of the research.

### *Think about*

You are approached by someone in the street with a clip board. They want you to help them by answering some questions and it will take around 10 minutes. What are the hooks they could use that would be effective in persuading you to take part?

## Tips for winning cooperation in interviews

1. *Communicate enthusiasm and confidence.* Interest in a survey is strongly influenced by the interviewer's approach.
2. *Make the introduction brief.* Once the respondent has answered the first question, there is a good chance they will also answer the last one. A key to successful interviewing is to quickly get them talking.
3. *Justify the interview.* The respondent should be offered a hook or benefit for taking part in the survey (such as better products or improved services).
4. *Appease the respondent's concerns.* Sometimes respondents are concerned about their ability to answer the questions.
5. *Make it easy for the respondent.* It may be more convenient to call at another time.
6. *Give assurances.* Explain that market research is to provide feedback to help suppliers meet customers needs. It is not used directly for selling purposes and there will be no sales pressure as a result of taking part in the survey.

## The role of the questionnaire in quantitative research

### *Key point*

**The attitude of the interviewer is crucial in winning cooperation from the respondent.**

The questionnaire is the instrument at the centre of the interview. A good questionnaire flows logically, and has questions that are clear and relevant to the respondent. It has instructions that guide the interviewer what to do and where to go next. If it has been designed well and tested in a small number of pilot interviews, it will ensure that the interview is a pleasant experience for both interviewer

and respondent. Quantitative research involves collecting a standard range of data from a significant sample of respondents – typically hundreds or thousands – and so the method of data recording needs to be considered as part of the research design.

Many questionnaires are now on a computer screen. Sixty percent of all telephone interviews are CATI (computer aided telephone interviewing) and 30% of face to face interviews are CAPI (computer aided face to face interviewing).

Given the growing popularity of computer aided interviewing it must offer considerable advantages. These are:

- The interviewer is left free to concentrate on the interview itself as the routing instructions are taken care of.
- Data is entered directly and the subsequent transactions of data processing are eliminated. Costs and punching errors are reduced.
- The whole process is speeded up because data is entered as it is obtained.
- At intervals during the survey, the researcher can interrogate the computer to examine the results.
- An analysis of results can be obtained immediately after the last interview has been completed.

There are some disadvantages to computer aided interviewing.

- A conventional questionnaire can be knocked up in no time and without the help of someone who knows their way around the technical nuances of a computer aided interviewing system. Getting a questionnaire set up and running, fault free on a CATI or CAPI system takes time.
- Coping with open ended responses presents some problems on a computer because, although the systems can accommodate open ended comment, capturing them requires interviewers to have good typing skills. If a respondent makes changes to an earlier answer when part way through the interview, it is more difficult to return and make alterations than is the case with paper questionnaires.
- It is more difficult to make margin notes on a computer aided interview and these may be useful at a later stage when interpreting the response from that individual.

In general, computer aided interviews are best suited to structured surveys of a couple of hundred interviews or more, especially tracking surveys where all the possible answers have been worked out and can be listed as pre-coded responses.

### ***SCARY STORY***

I was once making a training video on market research and took a team of people plus cameras to a busy shopping precinct in the centre of Manchester. The interviewers were experienced and part of our trusty fieldforce. They were instructed to approach people in the street and engage them in an interview. The cameras followed them around as they stalked their quarry, many of them suffering brusque rejections.

An attractive and vivacious graduate trainee was part of the entourage watching the shoot. She asked me if she could have a go at interviewing. Nothing could be lost because things were moving slowly.

With a huge smile on her face, she confidently walked up to the first person walking towards her and, surprise, surprise, they willingly took part. This happened time and again so the filming was finished in record time.

The learning for me was the importance of the approach and attitude of the interviewer in successfully winning the cooperation of respondents to take part in market research surveys.