Chapter 12: Collecting Data

Extra questions

1. Give examples of the value of using secondary data alongside primary data.

2. Give reasons why you might want to include all the members of a small social club when assessing opinions on the venue used for meetings.

3. How would you decide on the number of managers to include in a research project on leadership style?

4. Comment on the following statement: "to obtain a range of views on student fees I stopped every 10th person and asked them some questions".

5. You have been told that 940 people have placed orders by telephone from a specialist mail order catalogue. You have been asked to investigate the level of interest amongst these customers in Internet shopping. You have also been advised that time and cost constraints will limit the survey to 50 postal questionnaires. What advise would you give?

6. What method of sample selection would you recommend for a survey on house prices in a particular city?

7. You have been asked to draft a few questions on the use of computers by those over 65 years.

8. Describe how you might attempt to improve the response rate on a postal questionnaire to past students.

Extra answers

1. The data we have collected, primary data, will be very specific to our particular research and will have been limited by our research methodology. It is likely that our approach to data collection will have been subject to time and cost constraints. However, primary data will have the major advantage of addressing the questions of interest to us. Secondary data will have been collected for other purposes and can be very extensive. It can provide information, which is beyond the scope of our own enquiry (and that we should really be aware of). Secondary data can provide information that can be contrasting, so for example, we may have a demographic profile of those of interested to us (e.g. age, sex, qualifications etc.), which can then be compared to regional, national or international figures. We can also use secondary data for setting the parameters of our own enquiry e.g. the quota's in quota sampling.

2. You might choose to include all members of a small social club in your investigation because of their expectation to be included and that complete coverage may add little to costs. The inclusion of all persons (or items) is referred to as a census. The headcount of the population completed by the government once every ten years is what normally comes to mind when we think about a census – but any complete enumeration is regarded as a census. Typically we don't need to include everyone to gain sufficient information on opinions or other matters of interest. However, when making decisions about methods of enquiry we need to take account of how responds feel and how they are likely to respond. It is also easy to assume that so form of questionnaire is the best approach but we should also think about the alternatives like group discussions.

3. There is no simple rule that you can use to decide on the numbers to include in more complex research projects organisational issues. Organisations vary considerably in size and management structure. In some organisations your research topic of interest may be politically sensitive in others it may not cause any concerns. What is important is that you have sufficient understanding of the organisational context to make informed judgements on the research methodology. It is also likely that you are wishing to interview about a more complex issues, you would prefer more though, more 'in depth' response that just the replies to a simple questionnaire. As a guide, if you are working with a small organisation, with say 10 managers over one or two grades the chances are it would be better to interview all of them. As organisations become larger, you will need to be aware of the hierarchy and that levels of management can be seen as 'strata'. Again, as a guideline, where you have just a few managers at the more senior levels you may choose to interview all of them. As the numbers increase (as one moves down the organisational pyramid) there are advantages in taking a sample.

4. There are a number of reasons we might be concerned about this statement. The purpose of research is generally not to obtain just a range of views but to find the views representative of the people we are interested in. If you are going to interview in the street, then where and when you do it are important. If you interview every 10th person as they happen to be leaving a football match, you are likely to get different answers than from every 10th person leaving a CBI conference. You would

also need to consider what was so important about every 10th person. It is more important to get a representative sample with sufficient respondents. A rule like every 10th person does have the advantage of taking this element of selection away from the interviewer and therefore reducing this potential source of bias. We are also concerned about the reference to some questions. The answers you get will depend on the questions you ask. It is important that the questions are clearly considered and carefully worded.

5. It would not be difficult to select 50 people from the 940 that have placed orders by telephone using either some form of the lottery method (picking from a hat, random number tables, random number generator or interval sampling with a random start point). However, we might want to look at the characteristics of the sampling frame first. Have some people placed more that one order? Are some orders for very high value items and some orders for low value items? Are there distinctive product groupings being purchased? In this case, we might want to use additional knowledge to improve our sample design. Given that only certain groups of customers might be interested in Internet shopping, we will want to be sure that they are fairly represented.

If we merely want to gauge the interest in Internet shopping, then a sample of 50 should be adequate. To improve the accuracy of our results, we would want to increase the sample size but do need to ask in a business context whether this is cost effective. Given that we are looking at a specialist catalogue and that these customers have used mail order, postal questionnaire are likely to be effective. One major concern with postal questionnaires is the low response rate. In this case, the company is known and of interest, and previous correspondence has been by post. As with all postal questionnaires we need to be careful with question working and may need to give incentives to reply, like a prize draw or free pen.

6. These types of survey can soon become larger and more complex. It is important to establish the objectives at the beginning and ensure that the time and cost constraints are reasonable. Location and house type are always important determinants of house price. The areas within the city boundaries can be determined in a number of ways but constituency boundaries are still considered particularly useful. Basic desk research can provide a range of useful secondary data by constituency or ward level. It is this secondary data that can provide the information for stratification or quota controls. We would then need to develop a sampling frame using local Estate Agents or others sources of price information. We would also need to be aware that a difference is likely to exist between asking price and transaction price. Once we have this background information in place we could either take just a fair spread of houses (our sampling unit) across the city or sample in two stages, first selecting area (perhaps on the basis of a demographic stratification) and then houses within area. Typically systematic sampling is used (mostly for practical reasons) for final house price selection. We need to be particularly aware of bias in our selection method. Any particular bias towards one type of house or one type of area could make a big difference to the statistics produced.

7. Age will have been an important factor in survey design (a defining feature of the sampling frame) but will be less important in terms of the questions asked. There would of course be little point about asking about the usage of computers at school.

Again it is important to consider the flow of questions. We would first need to establish whether computers are being used or have been used. We would then need to establish the types of software used and then consider the more difficult issue of level of competence. Using a computer will mean different things to different people.

8. Like all postal surveys you need to capture the attention of the respondent. In this case a cover letter could explain how the views of past students are valued and how the institution remains interested in their progress since course completion. The questionnaire would need to be relatively straightforward and not take too long to complete. An enclosed stamped and addressed envelope would also be helpful. In cases where there is some affinity between the individuals and the organisation, there is little evidence that you need incentives like a free pen. In these cases the quality of the cover letter and the questionnaire, and the relevance of the topic are more likely to be important. If very successful we might expect a 60% to 70% response. To improve the response rate we could send a follow-up letter perhaps two to three weeks later. This reminder might improve the response rate by a further 10% to 20%. Finally after another two to three weeks we could again send the questionnaire with another cover letter. Again we might hope for a further 5% to 10%. These figures are very speculative but they do offer an operational guide. The big problem with postal survey is that we often have response rates of between 30% and 50% and cannot improve on them very much.