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Research Methods in Business Studies

A Practical Guide

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1. For an excellent and entertaining demonstration, see Huff (1954).
2. For detailed discussion, see Cook and Campbell (1979).
3. Hypothesis testing and the notion of significance will be dealt with in Chapters 10 and 11.
4. For a more detailed overview, see Churchill (1979).
5. For an excellent discussion, see Kirk and Miller (1986).

Althiede, D.L. and Johnson, J.M. (1994) 'Criteria for assessing interpretive validity in qualitative research', in Denzin, N.K. and Lincoln, Y.S. (eds), *Handbook of Qualitative Research*, Thousand Oaks, CA: Sage, pp. 485-99.

Churchill, G.A. (1991) *Marketing Research: Methodological Foundations*, 5th edn, Chicago, IL: Dryden Press (Chapter 9).

Venkatesh, B. (1978) 'Unthinking data interpretation can destroy value of research', *Marketing News*, January, pp. 6-9.

1. Why are valid measures important in empirical research?
2. What is the difference between a conceptual and an operational definition?
3. Why might a researcher wish to utilize more than one question to measure satisfaction with a job?
4. You are supposed to measure the strategy followed by a competing firm in an industry of your choice. What do you think would be the relevant indicators to capture the firm's strategies?

1. Determine whether each of the following measures is a nominal, ordinal, interval or ratio scale:
 - (a) prices on the stock market
 - (b) marital status, classified as married, never married
 - (c) whether or not a respondent has ever been employed.
2. Define each of the following concepts, and develop operational definitions (measures) for the defined concepts:
 - (a) a 'workaholic'
 - (b) costs
 - (c) power
 - (d) market share.

Data sources

According to Oriental folklore, a man called Nasiruddin was searching for something on the ground. A friend stopped and asked, 'What have you lost, Nasiruddin?' 'My key', replied Nasiruddin. The friend went down on his knees, trying to help, and they both looked for the key. After searching in vain for some time, the friend asked, 'Where exactly did you drop it?' 'In my house', answered Nasiruddin. 'Then why are you looking here, Nasiruddin?' 'There is more light here than in my house', replied Nasiruddin.

The purpose of this chapter is to look at: (1) what we mean by data collection, (2) what the sources of data collection are and (3) where to find the right data. Data sources are the carriers of data (information). A first distinction can be made between secondary and primary data sources. Secondary data are information collected by others for purposes that can be different from ours. Primary data are original data collected by us for the research problem at hand. These two types of data sources are discussed in some detail.

Secondary data

Secondary data are useful not only to find information to solve our research problem, but also to better understand and explain our research problem. In most research we need to begin with a literature review: earlier studies on and around our topic of research. They include books, journal articles, online data sources such as webpages of firms, governments, semi-government organizations and catalogues. The first step is to locate these sources and then to evaluate the usefulness of the contents of each. Some research questions can be answered only through secondary data sources, where no further data collection is needed.

You must realize that a secondary data source provides the information that may have been collected for a different *purpose*. For example catalogues and websites of many companies are prepared to impress and convince the customer. This means that information is either exaggerated or biased. By contrast, information collected by other organizations, such as 'Bureaux of Statistics' offers more neutral information and includes not only the positive information but also the negative. In the same manner the *scope* of the information can be different.

For example, you need to be observant on the time period. Does the information represent the current year, or an average of some years, or a particularly good/bad year? Does the information refer to regional or national comparison? You need also to question the *reliability* of the information. Are the sources mentioned, and if yes, can you check the authenticity of the information? Once you use the secondary data in your report, the reliability of the information becomes your responsibility (Cooper and Schindler, 2001).

This leads us to the point that you need to interpret and check the reliability of the information in the best possible way. You have to make a judgement that even if the information has been collected for a different purpose, can it be used for your study? Also, how could the purpose (for example marketing material) have influenced its contents? For example, if a company's website claims that they are the market leaders for a particular market, can you verify that?

If we collect data from US Chamber of Commerce publications about the number of cars per thousand people in India and on characteristics of car owners to determine the size of the car market for different car sizes, we are collecting secondary data. They are data that have been collected by the US Chamber of Commerce but we can use them to find answers to our questions.

There are more relevant data available than most researchers would believe. In this respect, researchers need to look at several sources for data availability on the topic/area of study in question. Once these sources have been located they need to look for data on their specific research problem and make a judgement on whether the information available can be used or not. Many research students underestimate the amount of data available from secondary sources. We should, therefore, start looking for secondary sources relevant to our research problem *before* going out to collect our own data. Secondary data can help researchers in the following manner:

- answering research questions or solving some or all of the research problems;
- helping in problem formulation and/or devising more concrete and focused research questions;
- deciding about the appropriateness of a certain research method or even suggesting better research methods for a particular problem;
- providing benchmarking measures and other findings that can be compared later on with the results of the study at hand.

A number of government offices regularly collect information on different aspects of society. The census of population available in each country can provide us with an enormous amount of information on potential customers and segments in a society. Central bureaux of statistics and branch organizations collect information on different companies, their size and market shares, as well as imports and exports. The following secondary sources can be important for our research:

Internet sites and web pages of different companies and organizations (e.g. www.info.com/companies).

Central and local government studies and reports, state budgets, rules on international trade regarding imports and exports, and policies on foreign direct investment (e.g. www.statistics.gov.uk/, US Chamber of Commerce, National Trade Development Bureau (NTDB) and Export Councils).

Studies and reports of institutions and departments such as universities, telecommunication departments, marketing and other research institutes, chambers of commerce and foreign missions such as embassies, trade centres and consulates.

Census reports on demographics, income levels and consumption patterns. Academic as well as professional journals and newsletters relevant to the problem area.

In many countries, different branch organizations publish journals on statistics regarding their own industry, market shares, revenues and imports and exports. For example, local chambers of commerce, small business associations and associations of retailers.

Historical studies regarding the development of a particular discipline or problem area. For example there are a number of 'handbooks' available on different topics, such as a Handbook on International Business or a Handbook on Qualitative Research Methods.

Textbooks and other published material directly or indirectly related to the problem area.

Commercial research companies selling data, such as: AC Nielsen (www.acnielsen.com) and Synovate (www.synovate.com).

International trade websites, United Nations, International Trade Statistics and the World Bank (www.worldbank.org).

And, last but not least, theses and reports written by other students in our own university and in other schools and universities. Many schools keep an up-to-date record of all the theses written in different disciplines. This is perhaps the most important secondary source at the earlier stages of our research process. They provide us with insight not only into our problem area, but also into the data sources mentioned above.

The websites listed as the number one sources above have become most important data sources, and are freely available. It is becoming increasingly easier to find relevant websites as there are scores of sites that can assist you to find information. 'Yahoo' and 'Google' are two of these web directories. You could also go to *Encyclopedia Britannica* (www.britannica.com) or SNAP (www.snap.com). All these search services have a 'Help' option that can assist you to understand how the particularly directory works. The *Financial Times* maintains a number of good data banks and can serve as an excellent data source. Consult www.ft.com to check it out. Some governments keep up-to-date sources of data relating to industries, companies and countries, including detailed economic, social and consumer information, as well as data on rules and regulations and policy documents. Some of these sources are listed in Table 7.1.

Table 7.1 Government data sources

Source	Website	Type of information
US Department of Commerce	www.doc.gov	Commercial data on countries
US Chamber of Commerce	www.uschamber.com	Information on US countries
US Patent and Trademark Office	www.uspto.gov	Information on patents applied for and registered
US Small Business Administration	www.sbaonline.sba.gov	Data on smaller firms in the US
US Census Bureau	www.census.gov	Data on US demographics
Department of Trade and Industry	www.dti.gov.uk	Information on UK companies and trade
<i>Financial Times</i>	www.ft.com	Several data banks, e.g. on mergers and acquisitions
<i>Business Week</i>	www.businessweek.com	Information on companies, e.g. top 500 firms
World Bank	www.worldbank.org	Economic, social and national/regional information on more than 200 countries
International Trade Administration, USA	www.ita.doc.gov	ITA helps US firms to compete in foreign markets
Center for International Business Education and Research (MSU-CIBER). A centre at Michigan State University, USA	www.ciber.bus.msu.edu	A website presenting different market information in the world
Trade Compass	www2.tradecompass.com	Business related information on different markets and companies
European Union	www.europa.eu.int	Statistical information on member countries
Euromonitor International	www.euromonitor.com	Information on the EU and other countries, and companies
University of Strathclyde, UK	www.strath.ac.uk	Company profiles, country information, economic export data and company directories
OECD	www.oecd.org	Statistics, economic indicators and other information on member countries
Eurostat	europa.eu.int/comm/eurostat/	Statistics at European level that enable comparisons between countries and regions
Europe Direct	europa.eu.int/europedirect	Information on the EU

Governments also keep statistics on demographics (e.g. census reports) that can help business researchers in their segmentation and location decisions. An historical analysis of companies' internal information can also help you to find patterns of different development and, thereby, forecast future trends. This is also called 'data mining' and is often used in marketing and financial issues (see e.g. Data Mining, 1997; and SAS (www.sas.com)).

7.1.3 Advantages of secondary data

The first and foremost advantage of using secondary data obviously is the enormous saving in time and money. The researcher needs only go to the library and locate and utilize the sources. This not only helps the researcher to better formulate and understand the research problem, but also broadens the base from which scientific conclusions can be drawn. In other words, the verification process is more rapid and the reliability of the information and conclusions is greatly enhanced.

Most of the data collected by international organizations and governments are of high quality and reliable as they are collected and compiled by experts using rigorous methods. Some examples of this data are provided in Table 7.2. Moreover, in case you need to do a longitudinal study, secondary sources provide excellent historical data (e.g. from any of the sources listed in Table 7.2). The secondary sources can also be helpful in segmentation and sampling of your target group (see e.g. Household Panel Survey (BHPS) listed in Table 7.2.). Large data sets can be easily categorized or grouped in sub groups (Addison and Belfield 2000, Bryman and Bell 2003).

Secondary sources also facilitate cross-cultural/international research, as it is easier to compare similar data from two or more countries. A number of international surveys, for example the World Bank and Euromonitor, provide comparable cross-country data (Coutrot, 1998) that can be used as a sole data source or in combination with some primary data collection.

Another advantage of consulting secondary data is that they can suggest suitable methods or data to handle a particular research problem. Moreover, they provide a comparison instrument with which we can easily interpret and understand our primary data. Quite often some research questions can best be answered by combining information from secondary and primary data. In most research questions it is necessary to consult some secondary data sources as this saves time and facilitates better handling of our research questions.

Considering all these advantages, many scholars recommend that all research should, in fact, start with secondary data sources. As Churchill (1999: 215) put it, 'Do not bypass secondary data. Begin with secondary data, and only when the secondary data are exhausted or show diminishing returns, proceed to primary data.' Sometimes secondary data provides enough information to answer the research questions. In such cases there is no need to collect primary data. Figure 7.1 presents some guidelines to get started with a search for secondary data.

Large UK and European data sets suitable for secondary analysis

Title	Data set details	Topics covered
Annual Employment Survey; formerly Census of Employment	Since 1971, Census of Employment conducted every two years. Provides a picture of the level and distribution of employment in Great Britain covering 1.25 million businesses. Since 1995, the Census of Employment has been replaced by the Annual Employment Survey (AES). www.statistics.gov.uk	Data are collected on the number of jobs by geographical location, detailed industrial activity (SIC code), and whether full or part time
British Household Panel Survey (BHPS)	Began in 1991 and conducted annually by interview and questionnaire with a national representative sample of some 5,500 households and 10,300 individuals. www.essex.ac.uk/ulsc/bhps	Household organization; labour market behaviour; income and wealth; housing; health; and socio-economic values
Company-level Industrial Relations Survey	Conducted in 1985 and 1992. Sample comprises large UK organizations – with 1000+ employees in two or more cities. Sponsored by the Economic and Social Research Council (ESRC) and the Department of Trade and Industry (DTI)	The main differences between this survey and AES is the level of analysis; instead of focusing on the workplace as the principal unit of analysis, this survey concentrates on obtaining company-level data
European Community Studies and Eurobarometer	Since the early 1970s, public opinion surveys conducted on behalf of the European Commission at least twice a year in all member states of the European Union	Cross-national comparison of a wide range of social and political issues, including European integration; life satisfaction; social goals; currency issues; working conditions; and travel
General Household Survey (GHS)	Annual interviews since 1971 with members aged 16+ in over 8,000 randomly sampled households	Has tended to cover standard issues such as education and health, about which questions are asked each year, plus additional items that vary annually
International Social Survey Programme (ISSP)	Annual programme, since 1983, of cross-national collaboration covering survey topics important for social science research. Brings together pre-existing projects, thereby adding a cross-cultural perspective to the individual national studies. Coordinated by the University of Cologne, accessible via UK Data Archive	Attitudes towards legal systems and the economy. Covers special topics including work orientations; the environment; and national identity
Office for National Statistics (ONS) Omnibus Survey	Survey carried out eight times a year since 1990 using face-to-face structured interviews on a sample of just under 2,000 interviewees. Uses short, simple sets of questions to gain an impression of public attitudes concerning topics that change frequently. Accessible via UK Data Archive	Covers core demographic questions about respondents plus questions that change from month to month on topics that change frequently – e.g. food safety; eating behaviour; personal finance; sports participation; Internet access; human rights; Aids awareness

Source: Based on Bryman and Bell (2003: 215–16)

1. Identify what you wish to know and what you already know about your topic.

2. Develop a list of key terms and names.

3. Search several of the general guides and directories for papers and/or reports.

4. Compile the literature you have found.
Rework your list of key words and authors if necessary.

5. Check if you have the information you wished to get.

6. Consult the various directory guides.

7. Identify authorities in the area and consult them.

How to get started when searching published secondary sources

Doing research in a company/organization will be facilitated by the fact that other departments/sections of the organization might have the information needed to answer the question at hand. Some types of study, for example comparative and longitudinal, require some historical data, available only through secondary sources.

Secondary data are not only inexpensive but are relatively easy to access. As mentioned above, increasing use of electronic sources has enhanced availability of these sources. Secondary data help us understand the situation/research field and identify areas of potential concerns that merit in-depth investigation based on primary research (Craig and Douglas, 2000).

Begin with secondary data and only when they are exhausted proceed with primary data.

Drawbacks of secondary data

There are some serious drawbacks in working with secondary data. We should be careful in using data just because they are easily available and save us time and money. One of the main problems is that these data are collected for another study with different objectives and they may not completely fit 'our' problem. It is therefore of the utmost importance to identify what we are studying, what we already know about the topic, and what we want to have as further information on it. Here we should make a list of the terms and concepts on which we need to

collect information. The idea is to take our research problem as the starting point for secondary data we need, and not the other way around. If the secondary data do not 'fit' with your specific problem, they should not be used. It is better to answer your question partially or not at all than to provide an answer based on wrong information.

It is sometimes difficult to classify these data in ways that are consistent with the study at hand. The variables might have been defined differently or the measurement unit could have been totally different and would, therefore, make the comparison absolutely invalid. For example, when studying the export behaviour of smaller firms, we could use a number of studies undertaken in different countries and could compare the results with our findings. After a closer look, however, we might realize that 'smaller firms' were defined differently. To determine the size (small, medium or large), different measurement units were used. Some studies defined size in terms of sales, some in terms of number of employees, some in terms of profit and some in terms of square metres of occupied space, as in the case of retailing firms.

Moreover, even if two studies use the same measurement unit, the terms of definition were often different. In a study in Norway, for example, firms with 200–499 employees were defined as medium sized, while in the USA firms with fewer than 500 employees were defined as smaller firms. In such a comparison, if the US study concluded that smaller firms depend highly on unsolicited orders for their initial export, we could not compare this finding with our findings in Norway by saying that, 'Consistent with the US study, smaller firms in Norway also depend heavily on unsolicited orders for their initial export, while medium-sized firms are much more aggressive and do not depend upon unsolicited orders for their initial exports.'

These types of difference are quite common, and researchers using secondary data or comparing and supporting their findings with the help of these data should be aware of the problems and make the comparison with some caution. One way to ameliorate the situation is to discuss the differences and the relevance of secondary data to our own study, looking at the validity of comparison and how it should be understood (see e.g. Box 7.1).

Although we have mentioned cost saving as one of the advantages of using secondary data, this cannot always apply. For example, using secondary data compiled by a commercial organization might be quite expensive. In this case you will have to compare the cost of collecting primary data as compared with the price of purchasing the secondary data.

Another problem is that it is the responsibility of the researcher that data are accurate; inaccuracies cannot be blamed on the secondary source. It is the researcher's responsibility to check whether findings presented by another researcher are based on primary or secondary data. This can be checked by internal consistency of the report being consulted. It is therefore important always to check the original source of data. It is only the original source that can provide us with the required information on the quality of data as it describes the process

Box 7.1 Difficulties in making cross-cultural comparison using official statistics

Jackie Davis (2001) carried out an international comparison of labour disputes and stoppages through strike action in 23 OECD countries between 1990 and 1999 using statistical data collected at a national level. However, the article is careful to point out the limitations of such an analysis for the following reasons:

- *Voluntary notification.* In most of the countries governments rely on employers notifying them of any disputes, which they are then able to confirm through media reports.
- *Fail to measure full effects.* None of the countries records the full effects of stoppages at work, for example measured in terms of lost working time in companies not involved in the dispute but that are unable to work because of a shortage of materials caused by the strike.
- *Different thresholds for inclusion.* In the UK, disputes involving fewer than ten employees or lasting less than one day are excluded from the recorded figures. In other countries the thresholds for inclusion are particularly high. For example, in the USA, records include only disputes involving more than 1,000 workers. This can make comparison of strike rates between countries particularly difficult.
- *Exclusion of certain industrial sectors.* Some of the countries exclude the effects of disputes in certain sectors: for example, Portugal omits the public sector and general strikes.
- *Changes in the way figures are recorded.* For example, France has changed the way it records lost working days, thus making it difficult to make comparison over time.
- *Indirectly involved workers.* There are differences between the countries in recording those workers who are unable to work because others at their workplace are on strike. Half of the countries, including France, the Netherlands and New Zealand, attempt to include these workers in the statistics, but the other half, including Italy and Japan, do not.
- *Dispute rates affected by a small number of very large strikes.* Some countries can appear to have very high labour dispute rates in one particular year because of one strike involving a large number of workers. In France, for example, there was a strike in 1995 involving all of the public sector.

These differences lead some countries, such as the USA or Japan, to record a lower number of working days lost through labour disputes than say the UK or Germany simply because of the different methods used for compiling statistics in the individual countries. This means that cross-cultural comparisons using nationally collected statistics need to be made with a degree of caution.

Source: Davis (2001); Bryman and Bell (2003: 227)

of data collection and analysis. Also, while referring to secondary data, you have to consult and refer to the original source and not what you have collected from an intermediate or third-hand report.

One problem with accuracy is that we have to understand the purpose of data collection for the source we are using. For example, it is quite common for companies to utilize wishful thinking in their annual reports rather than facts, when they describe their market position. They may mention that they are market leaders or have a certain percentage of market share. However, if we are studying the competitive position of a company, we should make certain checks to see whether it is the market leader or has the market share it claims. Macroeconomics and industry data collected by different countries and organizations vary considerably in their accuracy and equivalence. This is particularly problematic in developing countries where different sources report different values/data. For example, number of TV sets or automobiles per hundreds of the population. In some countries income of nationals working in foreign countries may be included in GDP.

7.1.3 Types of secondary data

As mentioned earlier (and illustrated in Figure 7.2), several types of secondary data are available, from government reports to companies' annual reports, that are always more upbeat than the reality. In business research, while doing work for a company, a lot of information is available from *internal sources*, including information on customers, suppliers, employees, marketing plans and efforts

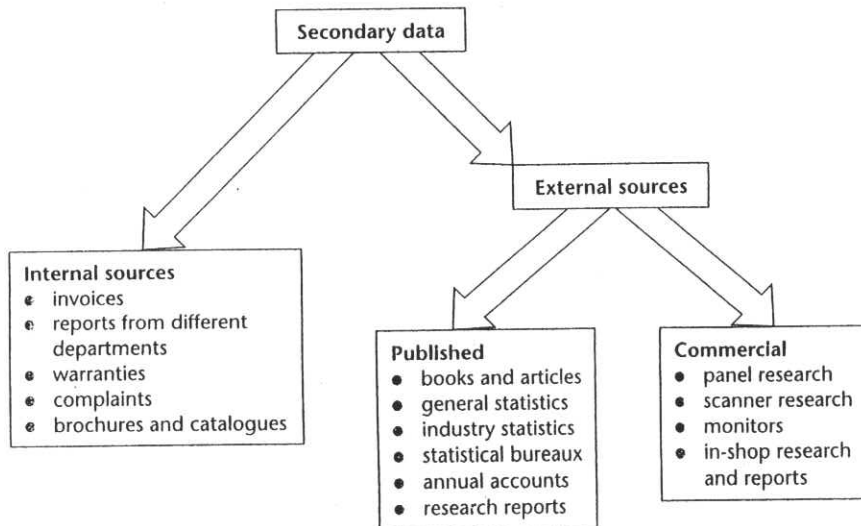


Figure 7.2 Types of secondary data

and, sometimes, even on the competitors. The researcher cannot accept this information at its face value, although it is free and readily available. *External sources* include published books and journal articles, academic as well as professional and popular. And then there are data that have been collected by commercial organizations or companies for the purpose of selling them. In the business research field a lot of such data are available, on market structure, consumers, demographics, advertising results, and on different products and markets (see Table 7.1 and 7.2 for some sources).

For published external sources, the best policy is to do a 'systematic search' in the library. For this you need to develop a list of main concepts and key words for your research problem. Search through the library by using these key words in different combinations. For example, if your research problem is to study export difficulties faced by small and medium-sized companies, you can use the following combinations: SMEs; small and medium-sized companies and export; export behaviour; export behaviour of SMEs; export problems; export subsidies, etc.

For this purpose you should also make use of search engines on the Internet and the various websites and data banks available. There are also export promotion bureaux and export credit banks. A number of universities also maintain useful data banks (see e.g. Figure 7.3). Also, consult your adviser and reference lists from the publications you have found.

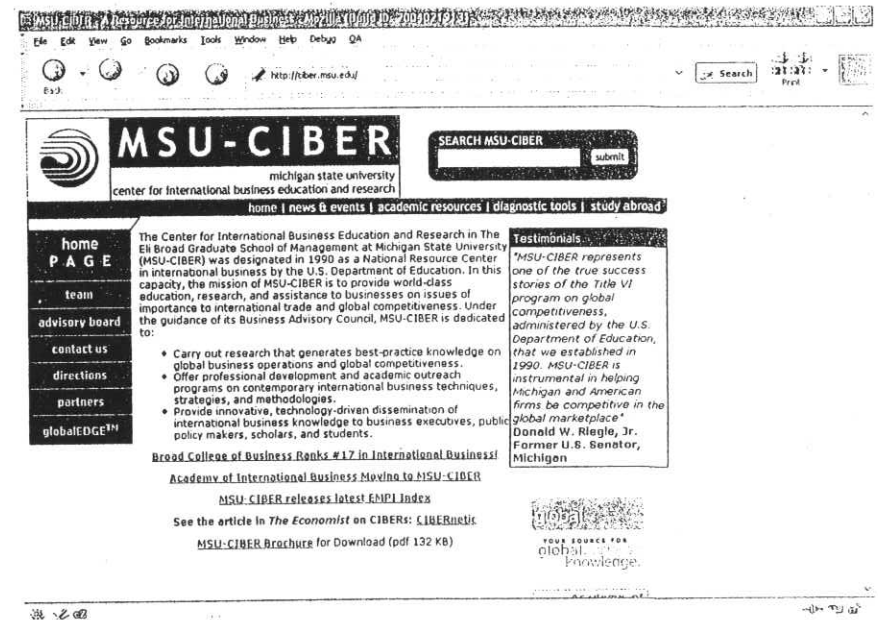


Figure 7.3 MSU-CIBER

Source: MSU homepage ciber.msu.edu