

ABDM4064 BUSINESS RESEARCH

Research Design : **Data Collection Methods –** **Sources of Data** **part 2**

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LEARNING OUTCOMES

After this lecture, you should be able to

- 1. Discuss the advantages and disadvantages of primary and secondary data**
- 2. Define types of secondary data analysis conducted by business research managers**
- 3. Identify various internal and proprietary sources of data**
- 4. Give examples of various external sources of data**

Topics of Discussion

- **Data Collection**
 - **Sources of Data**
 - **Primary Sources**
 - **Secondary Sources**
 - **Methods of Data Collection**
 - **Interview Method**
 - **Design of Questionnaires**
 - **Observation**

Data

- Data are facts, figures and other relevant materials, past and present, serving as bases for study and analysis.
- Types of Data:
 - **Demographic and Socio-economic Characteristics** of Individuals: age, race, religion, marital status, education, occupation, income, etc.
 - **Behavioural Variables**: Attitudes, opinions, awareness, knowledge, etc
 - **Organizational Data**: origin, ownership, objectives, resources, function, performance and growth.
 - **Territorial data**: Related to geophysical characteristics.

Sources of Data

- The sources of data may be classified into
- **Primary Sources:**
 - Primary sources are original sources from which the researcher directly collects data that have not been previously collected. Primary data are first hand information collected through various sources and methods.
- **Secondary Sources:**
 - These are sources containing data which have been collected and compiled for another purpose. Researchers may be used for their studies.

Sources of Primary Data

- **Individuals**
- **Focus Groups and**
- **Panels**

Focus Groups

■ Focus Group:

- Normally a focus group consist of 8 to 10 members with a moderator leading the discussion on a particular topic or concept or product.
- Members are generally chosen on the basis of their expertise in the topic on which information sought.

■ Aim:

- It aimed at obtaining respondents' impression, interpretation and opinions as the members talk about the event, concept, product or service.

Moderator

- The moderator introduces the topic, observes and takes notes and /or tapes the discussion.
- The moderator plays a vital role in steering the discussions in a manner that would draw out the information sought and keeping the members on track.
- The moderator never becomes an integral part of the discussions.

Data and its Use

- Data obtained through these homogeneous group (focus group) members are the least expensive and also lend themselves for quick analysis.
- The data obtained provides only **qualitative** and not quantitative information.
- Since the members are not selected randomly, the information collected may not be representative. However, it may be a basis for further scientific research.

Panels

- Panels are like a focus groups, as a source of primary information. Focus groups meet for one-time group session but the panels meet more than once and the members are chosen randomly.
- Aim:
 - In case where the effects of certain interventions or changes are to be studied **over a period of time**, panel studies are very useful.

Types of Panels

- **Static:**

- The same members serve on the panel over extended periods of time.

- **Dynamic:**

- The panel members are change from time to time as various phases of the study are in progress.

Sources of Secondary Data

- The secondary sources consist of readily available facts and already compiled statistical statements and reports whose data may be used by researchers for their studies, like, census reports, annual report of the Government departments, financial statement of the companies, etc.
- Secondary sources consist of not only published records and reports but also unpublished records.

Uses of Secondary Data

- **Reference Purpose:**
 - Some specific information from secondary sources may be used for reference purpose.
 - For example, information about number of registered companies in Malaysia, its capital structure, performance may useful to quoted as a background information in a study on the performance of a specific industrial sector.

Use of Secondary Data

- **Used as Bench Marks:**
 - Finding of local or regional survey may be compared with national average.
- **Used as the Sole Source of Information for Research:**

Advantages and Limitations

■ Advantages:

- Quick and cheap source of data
- Wider geographical area and longer reference period
- Enables a researcher to verify the findings based on primary data

■ Limitations:

- Data may not meet our specific research need
- The available data may not be as accurate as desired
- Data are not up-to-date and become obsolete when they appear in print.
- The source of data may not be available in some cases

Data Collection Method

- Primary data can be collected through interviews or observations.
- Interview:
 - It may be defined as a two way systematic conversation between an investigator and an informant (respondent), initiated for obtaining information relevant to a specific study.
- Observation:
 - Observation may be defined as a systematic viewing of a specific phenomenon in its setting for the specific purpose of gathering data for a particular study.

Methods & Types of Interview

■ Methods of Interview

- Face-to-face
- Telephone
- Mailed
- Computer Assisted

■ Types:

- Unstructured
- Structured

Types of Interview

■ Unstructured Interview:

- Interview without any planned sequence of questions that will be asked from the respondents. The main aim of the interview is to cause some preliminary issues to surface so that researcher **can decide what variables** need further in-depth investigation.

■ Structured Interview:

- Structured interviews are those conducted when it is known at the outset what information is needed. The questions will be asked to everybody in **the same manner**.

Tips to follow in Interviewing

- **Training Interviewers:**
 - Interviewers have to be thoroughly briefed about the research and trained in how to start an interview, how to proceed with the questions, how to motivated respondents to answer and how to close an interview.
 - They also need to be instructed about taking notes and coding the interview responses.
 - Good planning, proper training, offering clear guidelines to interviewers and supervising their work all help in profitably utilising the interviewing technique as a viable data collection mechanism.

Minimise Interviewer and Interviewees Bias

- **Interviewer Bias:**
 - This kind of bias will appear when there no proper trust and rapport with the interviewee or when the response are either misinterpreted or distorted.
- **Interviewees Bias:**
 - Interviewees can bias the data when they do not come out with their true opinions but provide information that they think is what the interviewer expects of them or would like to hear.

Methods to Control the Bias

- **Establish Rapport and Motivating Individuals to Response:**
 - To obtain honest information from the respondents, the researcher/interviewer should be able to establish rapport and trust with them.
 - The researcher should state the purpose of the interview and assure complete confidentiality about the source of the responses.

The Questioning Technique

- Ask open end questions first
- Unbiased questions
- Clarifying issues
- Helping the respondent to think through issues
- Taking notes

Advantages and Limitations of Face to Face Interview

■ Advantages:

- In direct interviews the researcher can adapt the questions necessary, clarify doubts and ensure that the respondents understood the question properly. The researcher can pick up nonverbal cues from the respondents.

■ Limitations:

- Limited geographical coverage, cost of survey is high, possibility of interviewer bias and the respondents may feel uneasy to answer the questions when they interact face to face.

Telephone Interview

- **Advantage:**

- **With in a short period of time wide geographical coverage is possible. Most of the respondent may feel comfortable to answer the questions through phone then face to face interview.**

- **Limitations:**

- **There may be lot of non response problems. T**
- **he researcher will not be able to see the respondent nonverbal communication.**

Mailed Survey

■ Advantages:

- Less costly than face to face interview
- Cover extensive geographical area
- Useful in contacting persons such as senior business executives
- Impersonal, free from interviewer bias

■ Limitations:

- Possible to collect information from educated only
- Response rate is low
- The cause for inadequate and non responses can not be known.

Computer Assisted Interview

■ Advantages:

- Quick, more accurate information gathering, faster and easier analysis of data.
- The cost of data collection and analysis also low.

Questionnaires

- This is a common instrument of primary data collection. It contains a set of questions logically related to a problem under study, aim at eliciting responses from the respondents. This can be classified under two different types.
 - One is called as personally administered questionnaires and
 - another one is called as mail questionnaires.

Personally Administered Questionnaires

- A researcher or a member of the research team can collect data by meeting the respondents personally,
- and any doubts that the respondents might have on any questions could be clarified on the spot.
- The required information can be collected within short period of time.

Mail Questionnaires

- These questionnaires are sent to the respondents, who can complete them at their convenience and send it back to the researcher.
- It possible to cover wide geographical area.
- However, the response rate is low.

Guidelines for Questionnaire Design

- Sound questionnaire design should focus on three important areas.
- The first related to wording of the questions;
- The second related to planning of issues of how the variables will be categorized, scaled and coded after the receipt of the response; and
- Finally, the general appearance of the questionnaires. We will see more details about the wording of the questions.

Principles of Wording

- **The content of the questions**
- **Language**
- **Type and form of questions**
- **The sequence of questions**
- **The personal data sought from the respondents**

Content and Purpose of the Questions

- The purpose of the each questions should be carefully considered so that the variables are adequately measured and yet no superfluous questions are asked.

Language

- The language of the questionnaire should be to the level of understanding of the respondents.
- The choice of the words would depend on their educational level, the usage of terms and idioms in the culture.
- The questions asked, the language used and the wording should be appropriate to tap respondents' attitudes, perceptions and feelings.

Types and Forms of Questions

- **Open-ended vs Closed Questions:**
 - **Open-end questions** allow respondents to answer them in a way they choose.
 - A **closed question**, in contrast, would ask the respondents to make choices among a set of alternatives given by the researcher.
 - **Closed questions** help the respondents to make quick decision to choose among the several alternatives before them.
 - Moreover, **closed questions** are easier for the researcher for analysis.

Positively and Negatively Worded Questions

- Instead of phrasing all questions positively, it is advisable to include some negatively worded questions as well, so the tendency in respondents to mechanically circle the points towards one end of the scale is **minimized**.

Double-Barreled Questions

- A question that lends itself to different possible responses to its subparts is called a double barreled questions. Such questions should be avoided and two or more separate questions asked instead.
- Example: Do you think there is a good market for the produce and do you think the product will sell well?

Ambiguous Questions

- If a question is ambiguously worded the respondent may not be sure what exactly it means.
- Example: To what extent would you say you are happy?

Recall Dependent Questions

- **Some questions may require respondents to recall experiences from the past.**
- **Answers to such questions may have bias.**

Leading Questions

- Questions should not be phrased in such a way that they lead the respondent to give the responses that the researcher would like or want them to give.
- Example: Don't you think that in these days of increasing cost of living, workers should have been given good pay raises?

Loaded Questions

- **Another type of bias in questions occurs when they are phrased in an emotionally charged manner.**

Socially Desirability

- **Questions should not be worded such that they elicit socially desirable responses.**

Example: Do you think that older people should be laid off?

Sequencing of Questions

- The sequence of questions in the questionnaire should be such that the respondent is led from questions of a general nature to those that are more specific and from questions relatively easy to more difficult.

Personal Information

- Unless necessary, personal information **should not** be asked.

Observational Survey

■ Types of Observation:

■ Participant Observation:

- In this observation the observer is a part of the group which is observed and he act as both observer and participant.

■ Non-participant Observation:

- Observer is not a part of the group. This method calls for skill in recording observations in an unnoticed manner.

Direct and Indirect Observation

- **Direct Observation:**
 - This means observation of an event personally by the observer when it takes place. This method is more flexible and allows the observer to see and record different aspects of the event, such as behaviour as they occur.
- **Indirect Observation:**
 - This does not involve the physical presence of the observer, and the recording is done by mechanical, photographic or electronic devices.

Advantages and Limitations

- **Advantages:**
 - Free from respondents' bias
 - Useful to note the effect of environmental influences on specific outcomes and certain groups of individuals, for example, child preferences of toys
- **Limitations:**
 - Very slow and costly method of data collection
 - Observer bias

Further Reading

- COOPER, D.R. AND SCHINDLER, P.S. (2011) BUSINESS RESEARCH METHODS, 11TH EDN, MCGRAW HILL
- ZIKMUND, W.G., BABIN, B.J., CARR, J.C. AND GRIFFIN, M. (2010) BUSINESS RESEARCH METHODS, 8TH EDN, SOUTH-WESTERN
- SAUNDERS, M., LEWIS, P. AND THORNHILL, A. (2012) RESEARCH METHODS FOR BUSINESS STUDENTS, 6TH EDN, PRENTICE HALL.
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