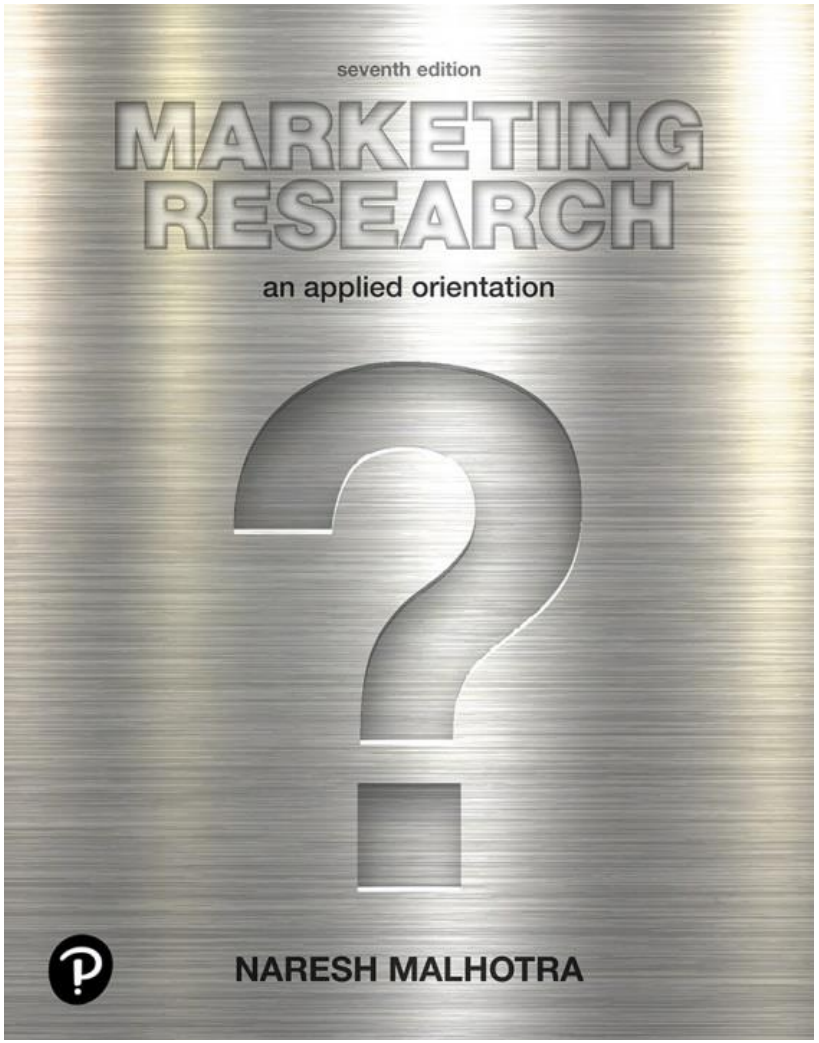
Marketing Research: An Applied Orientation

Seventh Edition



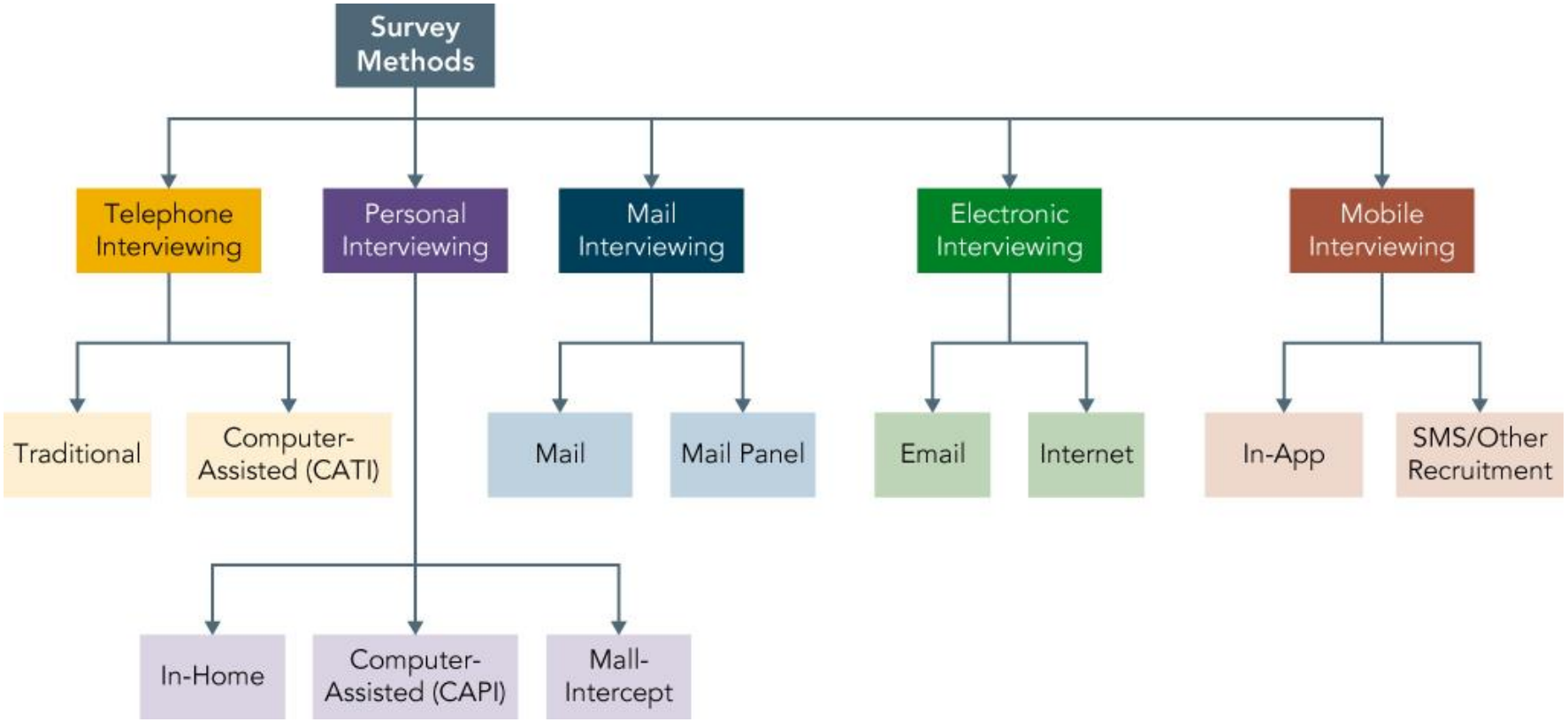
Chapter 6

Descriptive Research Design: Survey and Observation

Pearson

A Classification of Survey Methods

Figure 6.1 A Classification of Survey Methods



Criteria for Evaluating Survey Methods (1 of 6)

TASK FACTORS – tasks to be performed to collect data

Diversity of Questions and Flexibility of Data Collection

- The flexibility of data collection is determined by the extent to which the respondent can interact with the interviewer and the survey questionnaire.
- The diversity of questions depends upon the degree of interaction the respondent has with the interviewer and the questionnaire.

Use of Physical Stimuli

- The ability to use physical stimuli such as the product, a product prototype, commercials, or promotional displays during the interview.

Criteria for Evaluating Survey Methods (2 of 6)

Sample Control

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

Quantity of Data

- The ability to collect large amounts of data.

Response Rate

- Survey response rate is broadly defined as the percentage of the total attempted interviews that are completed.

Random Digit Directory Designs

Addition of a Constant to the Last Digit

An integer between 1 and 9 is added to the telephone number selected from the directory. In plus-one sampling the number added to the last digit is 1.

Number selected from directory: 404–953–3004 (area code-exchange-block). Add 1 to the last digit to form 404–953–3005. This is the number to be included in the sample.

Randomization on the *r* Last Digits

Replace the *r* ($r = 2$, 3, or 4) last digits with an equal number of randomly selected digits.

Number selected from directory: 212–881–1124. Replace the last four digits of block with randomly selected numbers 5, 2, 8, and 6 to form 212–881–5286.

Two-Stage Procedure

The first stage consists of selecting an exchange and telephone number from the directory. In the second stage, the last three digits of the selected number are replaced with a three-digit random number between 000 and 999.

Cluster 1

Selected exchange: 202–636

Selected number: 202–636–3230

Replace the last three digits (230) with randomly selected 389 to form 202–636–3389.

Repeat this process until the desired number of telephone numbers from this cluster is obtained.

Figure 6.2 Random Digit Directory Designs

- A high rejection rates

Criteria for Evaluating Survey Methods (3 of 6)

SITUATIONAL FACTORS

Control of the Data Collection Environment

- The degree of control a researcher has over the environment in which the respondent answers the questionnaire.

Control of Field Force

- The ability to control the interviewers and supervisors involved in data collection.

Criteria for Evaluating Survey Methods (4 of 6)

Potential for Interviewer Bias

- Sources of bias: respondent selection, research question etc.
- The extent of the interviewer's role determines the potential for bias.

Speed

- The total time taken for administering the survey to the entire sample.

Cost

- The total cost of administering the survey and collecting the data.

Criteria for Evaluating Survey Methods (5 of 6)

RESPONDENT FACTORS

Perceived Anonymity

- Perceived anonymity refers to the respondents' perceptions that their identities will not be discerned by the interviewer or the researcher.

Social Desirability/Sensitive Information

- Social desirability is the tendency of the respondents to give answers that are socially acceptable, whether or not they are true. With some exceptions, obtaining sensitive information is inversely related to social desirability.

Criteria for Evaluating Survey Methods (6 of 6)

Low Incidence Rate

- Incidence rate refers to rate of occurrence of persons eligible to participate in the study.

Respondent Control

- Methods that allow respondents control over the interviewing process will solicit greater cooperation and are therefore desirable.

A Comparative Evaluation of Survey Methods (1 of 3)

Table 6.2 A Comparative Evaluation of Survey Methods

Criteria	Telephone CATI	In-Home Interviews	Mall-Intercept Interviews	CAPI	Mail Surveys	Mail Panels	Email	Internet	Mobile
Task Factors									
Diversity of questions and flexibility	Low to moderate	High	High	Moderate to high	Moderate	Moderate	Moderate	Moderate to high	Low
Use of physical stimuli	Low	Moderate to high	High	High	Moderate to high	Moderate	Low	Moderate	Low to moderate
Sample control	Moderate to high	Potentially high	Moderate	Moderate	Low	Moderate to high	Low	Low to moderate	Low to moderate
Quantity of data	Low	High	Moderate	Moderate	Moderate	High	Moderate	Moderate	Low
Response rate	Moderate	High	High	High	Low	High	Low	Very low	Moderate

A Comparative Evaluation of Survey Methods (2 of 3)

[Table 6.2 Continued]

Criteria	Telephone CATI	In-Home Interviews	Mall-Intercept Interviews	CAPI	Mail Surveys	Mail Panels	Email	Internet	Mobile
Situational Factors									
Control of data collection environment	Moderate	Moderate to high	High	High	Low	Low	Low	Low	Low
Control of field force	Moderate	Low	Moderate	Moderate	High	High	High	High	High
Potential for interviewer bias	Moderate	High	High	Low	None	None	None	None	None
Speed	High	Moderate	Moderate to high	Moderate to high	Low	Low to moderate	High	Very high	Very high
Cost	Moderate	High	Moderate to high	Moderate to high	Low	Low to moderate	Low	Low	Low to moderate

A Comparative Evaluation of Survey Methods (3 of 3)

[Table 6.2 Continued]

Criteria	Telephone CATI	In-Home Interviews	Mall-Intercept Interviews	CAPI	Mail Surveys	Mail Panels	Email	Internet	Mobile
Respondent Factors									
Perceived anonymity of the respondent	Moderate	Low	Low	Low	High	High	Moderate	High	Moderate
Social desirability	Moderate	High	High	Moderate to high	Low	Low	Moderate	Low	Low
Obtaining sensitive information	High	Low	Low	Low to moderate	High	Moderate to high	Moderate	High	Moderate to high
Low incidence rate	High	Low	Low	Low	Moderate	Moderate	Moderate	High	High
Respondent control	Low to moderate	Low	Low	Low	High	High	High	Moderate to high	High

Observation Methods - Structured Versus Unstructured Observation

- Recording behavioral pattern in a systematic manner

- For **structured observation**, the researcher specifies in detail what is to be observed and how the measurements are to be recorded, e.g., an auditor performing inventory analysis in a store.
- In **unstructured observation**, the observer monitors all aspects of the phenomenon that seem relevant to the problem at hand, e.g., observing children playing with new toys.

Observation Methods - Disguised Versus Undisguised Observation

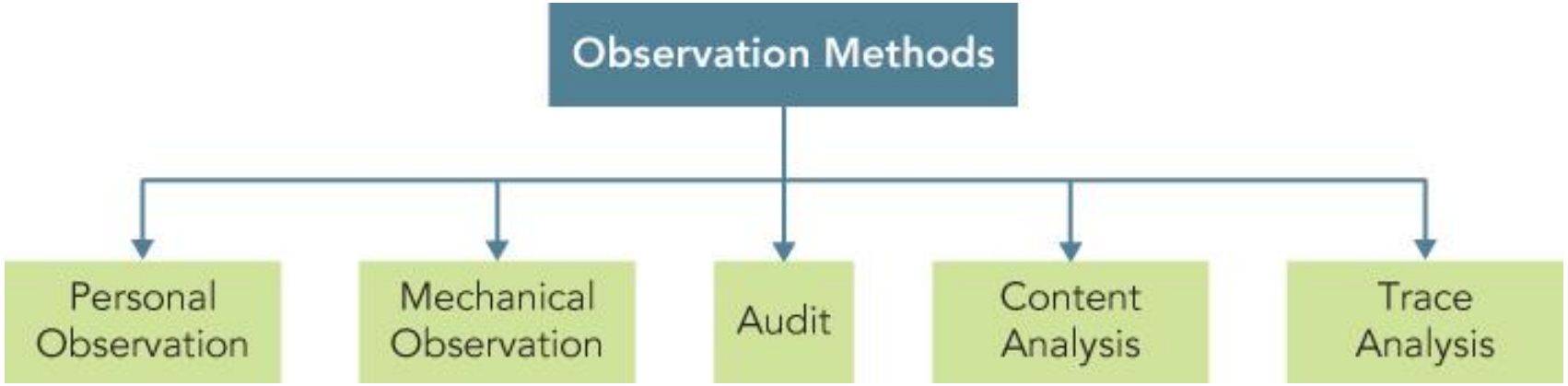
- In **disguised observation**, the respondents are unaware that they are being observed. Disguise may be accomplished by using one-way mirrors, hidden cameras, or inconspicuous mechanical devices. Observers may be disguised as shoppers or salesclerks.
- In **undisguised observation**, the respondents are aware that they are under observation.

Observation Methods - Natural Versus Contrived Observation

- **Natural observation** involves observing behavior as it takes places in the environment. For example, one could observe the behavior of respondents eating fast food at Burger King.
- In **contrived observation**, respondents' behavior is observed in an artificial environment, such as a test kitchen.

A Classification of Observation Methods

Figure 6.3 A Classification of Observation Methods



Observation Methods: Personal Observation

- A researcher observes actual behavior as it occurs.
- The observer does not attempt to manipulate the phenomenon being observed but merely records what takes place.
- For example, a researcher might record traffic counts and observe traffic flows in a department store.

Observation Methods: Mechanical Observation

Do not require respondents' direct participation.

- The AC Nielsen audimeter
- Turnstiles that record the number of people entering or leaving a building
- On-site cameras (still, motion picture, or video)
- Optical scanners in supermarkets (UPC)

Do require respondent involvement.

- Eye-tracking monitors
- Pupilometers – tracking pupil diameter to gauge interest and attitude
- Voice pitch analyzers, response latency
- Neuromarketing – fMRI to measure how brain reacts to different marketing stimuli

Observation using Internet

- Number of times a Web page is visited
- Time spent on the page
- Which links are accessed – information needs
- Analysis of links from where the company site is being approached
- Cookies – stored on surfer's browser to identify her
  - Used for retargeting
  - Privacy considerations

Observation Methods: Audit

- The researcher collects data by examining physical records or performing inventory analysis.
- Data are collected personally by the researcher.
- The data are based upon counts, usually of physical objects.
- Retail and wholesale audits conducted by marketing research suppliers were discussed in the context of syndicated data in Chapter 4.

Observation Methods: Content Analysis

- The objective, systematic, and quantitative description of the manifest content of a communication.
- The unit of analysis may be words, characters (individuals or objects), themes (propositions), space and time measures (length of the message), or topics (subject of the message).
- Content or message of advertisements, newspaper articles, television ads
- Online contents

Observation Methods: Trace Analysis (1 of 2)

Data collection is based on physical traces, or evidence, of past behavior.

- The selective erosion of tiles in a museum indexed by the replacement rate was used to determine the relative popularity of exhibits.
- The number of different fingerprints on a page was used to gauge the readership of various advertisements in a magazine.
- The position of the radio dials in cars brought in for service was used to estimate the share of listening audience of various radio stations.

Observation Methods: Trace Analysis (2 of 2)

- The age and condition of cars in a parking lot were used to assess the affluence of customers.

- Internet visitors leave traces which can be analyzed to examine browsing and usage behavior by using cookies.

A Comparative Evaluation of Observation Methods

Table 6.4 A Comparative Evaluation of Observation Methods

Criteria	Personal Observation	Mechanical Observation	Audit	Content Analysis	Trace Analysis
Degree of structure	Low	Low to high	High	High	Medium
Degree of disguise	Medium	Low to high	Low	High	High
Ability to observe in natural setting	High	Low to high	High	Medium	Low
Observation bias	High	Low	Low	Medium	Medium
Analysis bias	High	Low to medium	Low	Low	Medium
General remarks	Most flexible	Can be intrusive	Expensive	Limited to communications	Method of last resort

Relative Advantages of Observation

- They permit measurement of actual behavior rather than reports of intended or preferred behavior.
- There is no reporting bias, and potential bias caused by the interviewer and the interviewing process is eliminated or reduced.
- Certain types of data can be collected only by observation.
- If the observed phenomenon occurs frequently or is of short duration, observational methods may be cheaper and faster than survey methods.

Relative Disadvantages of Observation

- The reasons for the observed behavior may not be determined since little is known about the underlying motives, beliefs, attitudes, and preferences.
- Selective perception (bias in the researcher's perception) can bias the data.
- Observational data are often time-consuming and expensive, and it is difficult to observe certain forms of behavior.