

ELEVENTH EDITION

EXPLORING
Marketing Research



Barry Babin | William Zikmund

Chapter 8

Observation



LEARNING OUTCOMES

After studying this chapter, you should

1. Discuss the role of observational technologies as marketing research tools
2. Know the difference between direct and contrived observation
3. Identify ethical issues particular to research using observation
4. Explain the observation of physical objects and message content
5. Describe major types of mechanical observation
6. Summarize techniques for measuring physiological reactions

Introduction

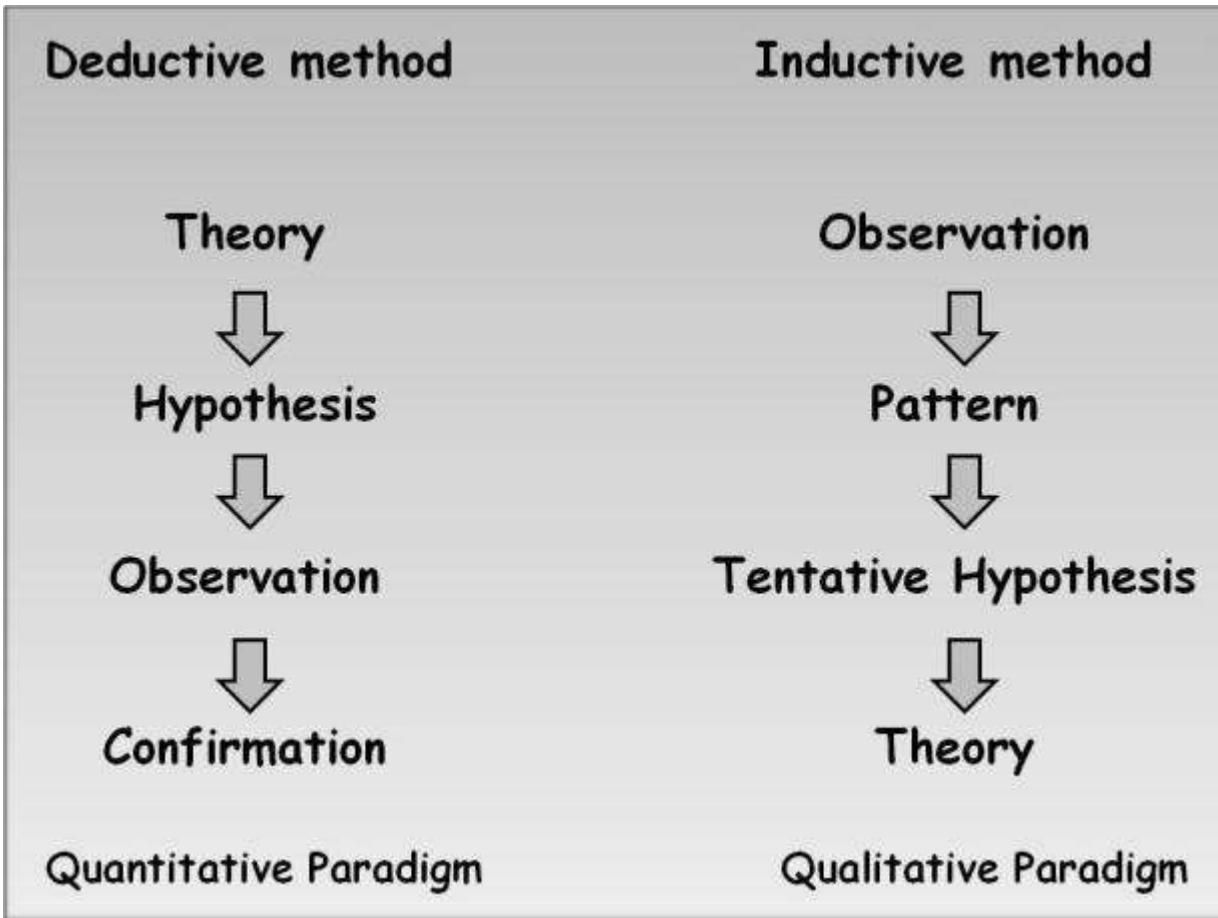
- Scientists rely heavily on observation
- Observations play a key role in discovering ideas and developing theories
- Inductive learning begins with collections of observations

Technology and Observation in Marketing Research

- Observation—the systematic process of recording the behavioral patterns of people, objects, and occurrences as they take place
- Advances in technology have given a bigger role for observational research tools in marketing research

Technology and Observation in Marketing Research (cont'd.)

- Observation can be a useful part of either qualitative or quantitative research
- Scientific observation addresses a research question aimed at discovering market knowledge



Technological Advances and Observation

- Internet, cellular, social networking and near-field technologies have fueled big data analytics
 - Because most of this data gathering involves no two-way communication (no survey or interview), these types of data qualify as observational
 - They leave behind a systematic recording of what people actually did
- These technologies enable data collection to be automated

What Can Be Observed?

- Physical movements
- Verbal behavior
- Expressive behavior and physiological reactions
- Spatial tensions and locations
- Temporal patterns
- Physical objects
- Verbal and pictorial records
- Neurological activity
- Internet activities
- Geographical information
- Physical distribution

EXHIBIT 8.1 Different Types of Observable Behaviors Tracked by Marketing Research

Observable Phenomenon	Illustration	Technologies Used to Observe
Physical Movements	The ways shoppers move through shopping centers and stores	Video, GPS and NFC
Verbal Behavior	Statements recorded at the Walmart complaint line, posted on blogs, social networks, or sites like TripAdvisor	Voice recordings and Internet archives
Expressive Behavior and Physiological Reactions	Facial expressions of consumers in a restaurant, the body language of consumers waiting for service, or the amount of sweat produced under stress	Human observations, video or tools like GSR
Spatial Tensions and Locations	How close shoppers stand to a service provider while getting advice about what clothes look good	Human observations or video
Temporal Patterns	How long patients in a doctor's office will wait before going to the counter to complain	Human observations or timing devices
Physical Objects	What brands of shoes, clothing, and skateboards teens at a skate park own and use	Human observation
Verbal and Pictorial Records	Photographs or videos of early childhood Christmas experiences including photos posted on Instagram, Facebook, or other social network sites	Data archiving techniques, human observation
Neurological Activities	Brain activity in response to a consumer experiencing joy or disgust while reading advertising copy	Facial recognition or devices like fMRI
Internet Activities	Websites viewed, time spent viewing, social networking habits—what do consumers <i>like</i> ? Search engine histories—what are consumers looking for?	Cookies and other tags that identify devices
Geographical Information	Where is someone physically located at any given time?	GPS tools, IP addresses, cell tower IDs
Physical Distribution	Movement of raw materials and finished products across the globe	NFC, satellite observation

Disadvantages of Observation

- Behavior can be observed, but motives cannot
- Analytical models do better with predicting behavior than explaining it
- Observation period is often too short

The Nature of Observation Studies

- Mechanical observation, as performed by supermarket scanners or traffic counters, can very accurately record behavior that is routine, repetitive, or programmatic
- Unobtrusive observation—no communication with the person being observed is necessary so that he or she is unaware that he or she is an object of research

The Nature of Observation Studies (cont'd.)

- Visible observation—observation in which the observer's presence or mechanical measurement device is obviously known to the subject
- Hidden observation—observation in which the subject is unaware that observation is taking place
- Observations are free from nuisances such as social desirability bias or memory problems

Observation of Human Behavior

- Behavioral scientists have recognized that nonverbal behavior can be a communication process by which individuals exchange meanings
- Head nods, smiles, raised eyebrows, winks, and other facial expressions or body movements serve as communication symbols
- Observation of nonverbal communication may hold considerable promise for the marketing researcher

EXHIBIT 8.2 Observing and Interpreting Nonverbal Communication

Behavior	Description	Example
Facial Expressions	 Expressions of emotion such as surprise (eyes wide open, mouth rounded and slightly open, brow furrowed)	A consumer reacts to the price quoted by a salesperson.
Body Language	 Posture, placement of arms and legs	A consumer crosses arms as salesperson speaks, possibly indicating a lack of trust.
Eye Activity	 Eye contact, staring, looking away, dilated pupils. In U.S. culture, not making eye contact is indicative of a deteriorating relationship. Dilated pupils can indicate emotion or degree of honesty.	A consumer avoids making eye contact with a salesperson knowing that he or she will not make a purchase.
Personal Space	 Physical distance between individuals; in the United States, people like to be about eight feet apart to have a discussion.	A consumer may back away from a salesperson who is viewed to be violating one's personal space.
Gestures	 Responses to certain events with specific body reactions or gestures	A consumer who wins something (maybe at the casino or a sports contest) lifts arms, stands tall, and sticks out chest.
Manners	 Accepted protocol for given situations	A salesperson may shake a customer's hand, but should not touch a customer otherwise.

Direct and Contrived Observation

- Direct observation—a straightforward attempt to observe and record what naturally occurs
 - The investigator does not create an artificial situation
- Contrived observation—observation in which the investigator creates an artificial environment in order to test a hypothesis
 - Can increase the frequency of certain behavior patterns
 - If situations are not contrived, the research time spent waiting and observing would expand considerably

Why Use Direct Observation?

- Straightforward
- Economical
- Obtain data quickly and easily
- Often the most accurate way to gather data
- Has limited flexibility because not all phenomena are observable

Errors Associated with Direct Observation

- When human observers record behaviors, the observer may record events subjectively
- Observer bias—a distortion of measurement resulting from the cognitive behavior or actions of a witnessing observer
 - The observer should record as much detail as possible
- Pace of events, observer's memory, observer's writing speed, and other factors limit the detail of what can be recorded

Complementary Evidence

- Observational approaches can be combined (complemented) with other research approaches
- Survey responses combined with information on how long the respondent took to make a choice reveal more than either type of data alone
- Response latency—the amount of time it takes to make a choice between two alternatives
 - Used as a measure of the strength of preference

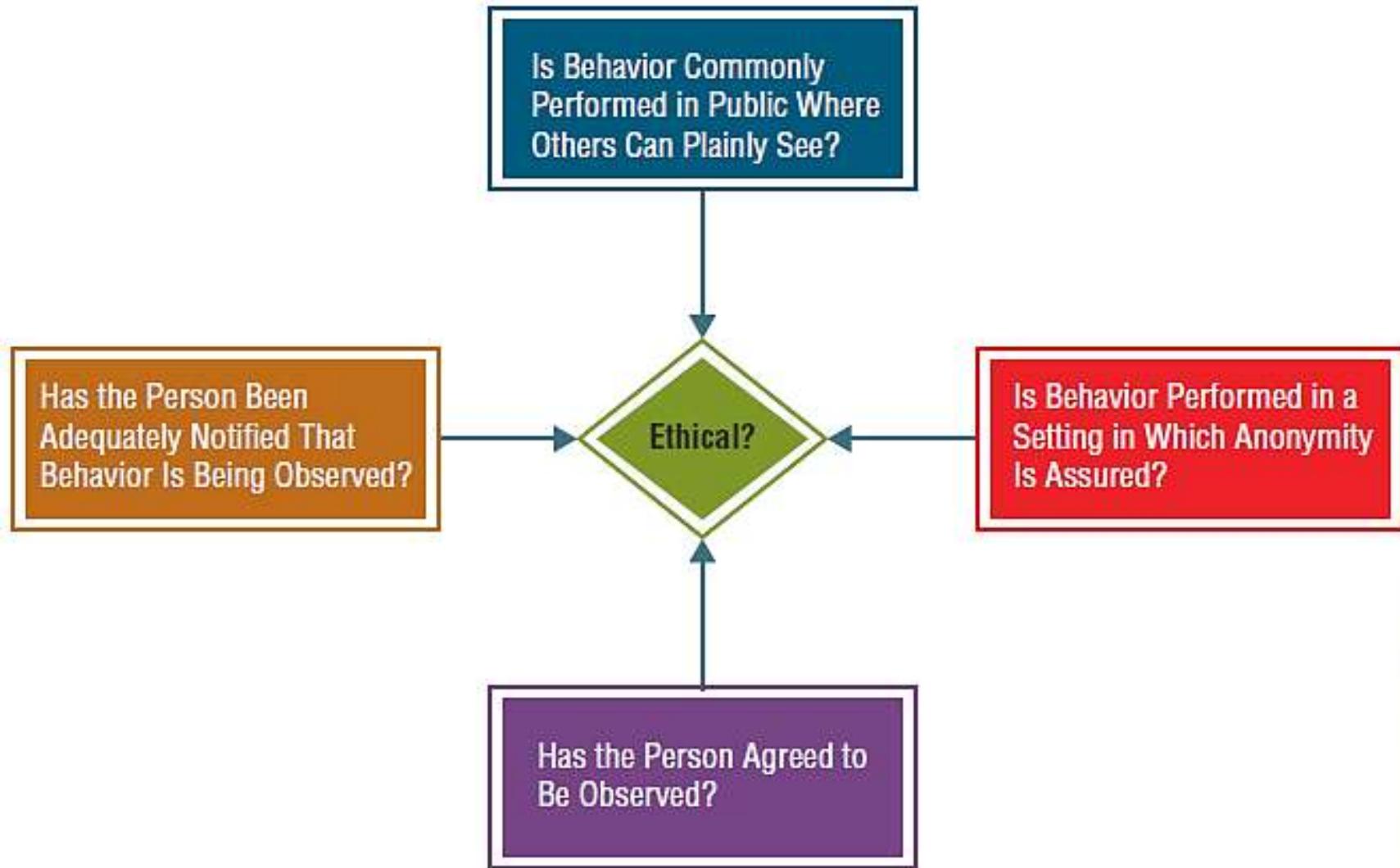
Ethical Issues in the Observation of Humans

- Observation is sometimes akin to spying
- Raises the question of the respondent's right to privacy
- If the researcher obtains permission to observe someone, the subject may not act naturally
- New technologies afford opportunities to observe behaviors of interest to marketing managers
 - Deep-packet inspection refers to the ability of an Internet service provider to read data transmitted by users

Ethical Issues in the Observation of Humans (cont'd.)

- Four questions to address ethics:
 - Is the behavior being observed commonly performed in public?
 - Is the behavior performed in a setting in which the anonymity of the person being observed is assured?
 - Has the person agreed to be observed?
 - Has the person been adequately notified that their behavior (including data transfers) is being observed?
- If the answer to these questions is “yes”, then the study is probably ethical
- If the answer is “no”, input from IRB is needed

EXHIBIT 8.3 Is the Observation Ethical?



Observation of Physical Objects

- Artifacts—the things that people made and consumed within a culture that signal something meaningful about the behavior taking place at the time of consumption
- Inventories—counting and recording physical inventories through retail or wholesale audits
- Content analysis—the systematic observation and quantitative description of the manifest content of communication

Mechanical Observation

- Types:
 - Television, radio, and digital monitoring
 - Monitoring web traffic
 - Scanner-based research
 - Camera surveillance
 - Smartphones

Monitoring Web Traffic

- Web traffic and buzz
 - Click-through rate—proportion of people who are exposed to a hyper-linked Internet ad who actually click on its hyperlink to enter the website
 - Conversation volume—measure of the amount of Internet postings that involve a specific name or term
- CTR and online advertising
 - Applying the CTR to the amount spent on the advertisement gives the advertiser a cost per click
 - If the company makes more than fifty cents per customer clicking through, the ads are effective

EXHIBIT 8.4 Using Web Stat Providers

What's Hot

The most popular pages on the web right now... according to the [Alexa Toolbar](#). Updated Every 5 Minutes

Search Hot Pages:

 [Hot Pages Search](#)

Hot Topics

1. ESPN	6. dominos	11. Shannon Guess Rich...	16. Nyse:twx
2. Kacy Catanzaro	7. Uber	12. Tesla Model 3	17. John Cleese
3. Iggy Azalea	8. Weird Al	13. Bitly	18. Spotify web player
4. Airbnb	9. tilt	14. Derek Jeter	19. Noel Wells
5. Comcast	10. Zerg Rush	15. Lance Stephenson	20. FedEx tracking

Hot Products

1. [Certified Refurbished Kindle Paperwhite](#)
2. [Kindle Fire 7" Tablet](#)
3. [Amazon Fire TV](#)
4. [Vita Coco 100% Pure Coconut Water](#)
5. [Business Calendar](#)
6. [Bowflex SelectTech 552 Dumbbells](#)
7. [Amazon Fire Phone, 32GB](#)
8. [Random Access Memories](#)
9. [Greatest Hits](#)
10. [Denon AKDL1 Dedicated Link Cable](#)

Hot Pages

[Obama Just Summed Up The State Of The World In One Depressing Sentence](#) ↗

Source: www.alexa.com

EXHIBIT 8.4 Using Web Stat Providers (cont'd.)

The screenshot shows the Alexa website interface for Netflix.com. At the top, there's a search bar with a yellow 'Search' button. Below it, a snippet of text about Netflix from Alexa's About page is shown. A blue callout box to the right of this text states: "This page results from searching site information for Netflix.com at alexa.com." The main content area displays various metrics for Netflix.com:

- Alexa Traffic Rank: 95 (globally) and 21 (in the US). A blue arrow points from this text to the 'Traffic Rank' section of the interface.
- Average Daily Reach: 7,958 (sites linking to it).
- Demographic data: Percent of global internet users who visit Netflix.com over different time periods (Yesterday, 7 day, 1 month, 3 month).
- A chart showing Daily Reach (percent) over the last two months, comparing Netflix.com against fandango.com, blockbuster.com, and barnesandnoble.com. Netflix consistently has the highest reach, peaking around 1.2%.
- Toolbar access: A blue arrow points to the 'Reach' tab in the toolbar, which provides more detailed information including basic demographics of Netflix users.
- Comparison tool: A 'Compare' button at the bottom allows users to compare Netflix.com's traffic against other sites like fandango.com, blockbuster.com, redbox.com, and barnesandnoble.com.

On this day, Netflix.com was the 21st most popular web site among U.S. Internet Users.

The Toolbar provides access to more detailed information including basic demographics of Netflix users.

The chart shows that Netflix gets more hits than any of the four sites shown below. Just under 1 percent of all internet users in the world visit Netflix.

Source: www.netflix.com

Scanner-Based Research

- Scanner-based consumer panel—a type of consumer panel in which participants' purchasing habits are recorded with a laser scanner rather than a purchase diary
- Scanner data—mechanical observation form that requires no input from customers

Camera Surveillance

- Cameras planted inconspicuously in places can be useful in marketing research
- Shopping center security video can help identify problems with merchandising and the types of things that attract consumers to come into and remain in an environment

Smartphones

- Observations from smartphones might reveal:
 - When people are happy based on their message content
 - Their political opinions
 - When the customer may be unhappy with their smartphone or service provider
 - Where a person likes to party on the weekend
 - What types of websites a person likes
- Like other areas, technology may outpace the ethics of using this type of data

Measuring Physiological Reactions

- Eye-tracking—used to observe eye movements
- Pupilometer—used to observe and record changes in the diameter of a subject's pupils
- Psychogalvanometer—measures galvanic skin response, a measure of involuntary changes in the electrical resistance of the skin
- Voice-pitch analysis—a physiological measurement technique that records abnormal frequencies in the voice that are supposed to reflect emotional reactions to various stimuli

Measuring Physiological Reactions (cont'd.)

- Neurological devices

- Magnetic resonance imaging (MRI) device—a machine that allows one to measure what portions of the brain are active at a given time