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Chapter 7

Measurement and Scaling

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Learning Objectives

- Understand the role of measurement in marketing research
- Explain the four basic levels of scales
- Describe scale development and its importance in gathering primary data

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Value of Measurement in Information Research

- Precise physical measurement is critical
 - Essential to effective decision making

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Overview of the Measurement Process

- **Measurement:** An integrative process of determining the intensity (or amount) of information about constructs, concepts, or objects
 - Consists of two tasks:
 - Construct selection/development
 - Scale measurement

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What Is a Construct?

- An abstract idea or concept formed in a person's mind
 - A combination of a number of similar characteristics of the construct


7.8

Construct Development

- **Construct:** A hypothetical variable made up of a set of component responses or behaviors that are thought to be related
 - **Construct development:** An integrative process in which researchers determine what specific data should be collected for solving the defined research problem

7.6

Exhibit 7.1 - Examples of Concrete Features and Abstract Constructs of Objects

Marketing Constructs	
 Brand loyalty	<p>Concrete properties: the number of times a particular brand is purchased, the frequency of purchases of a particular brand, amount spent</p> <p>Abstract properties: like/dislike of a particular brand, the degree of satisfaction with the brand, overall attitude toward the brand</p>
 Customer satisfaction	<p>Concrete properties: identifiable attributes that make up a product, service, or experience</p> <p>Abstract properties: liking/disliking of the individual attributes making up the product, positive feelings toward the product</p>
 Service quality	<p>Concrete properties: identifiable attributes of a service encounter, for example amount of interaction, personal communications, service provider's knowledge</p> <p>Abstract properties: expectations held about each identifiable attribute, evaluative judgment of performance</p>
 Advertising recall	<p>Concrete properties: factual properties of the ad (for example, message, symbols, movement, models, text), aided and unaided recall of ad properties</p> <p>Abstract properties: favorable/unfavorable judgments, attitude toward the ad</p>

7.7

Scale Measurement

- The process of assigning descriptors to represent the range of possible responses to a question about a particular object or construct
 - Scale points:** Designated degrees of intensity assigned to the responses in a given questioning or observation method

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Four Basic Scale Levels

Nominal Scale

- The type of scale in which the questions require respondents to provide only some type of descriptor as the raw response

Ordinal Scale

- A scale that allows a respondent to express relative magnitude between the answers to a question

Interval Scale

- A scale that demonstrates absolute differences between each scale point

Ratio Scale

- A scale that allows the researcher not only to identify the absolute differences between each scale point but also to make comparisons between the responses

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Exhibit 7.2 - Examples of Nominal Scales

Example 1:

Please indicate your marital status.

Married Single Separated Divorced Widowed

Example 2:

Do you like or dislike chocolate ice cream?

Like Dislike

Example 3:

Which of the following supermarkets have you shopped at in the last 30 days? Please check all that apply.

Albertson's Winn-Dixie Publix Safeway Walmart

Example 4:

Please indicate your gender:

Female Male Transgender

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Exhibit 7.3 - Examples of Ordinal Scales

Example 1:

How likely are you to recommend the Santa Fe Grill to a friend?

Definitely Will Not Recommend

1 2 3 4 5

Definitely Will Recommend

6 7

Example 2:

Using a scale of 0–10, with "10" being Highly Satisfied and "0" being Not Satisfied At All, how satisfied are you with the banking services you currently receive from (read name of primary bank)?
Answer: _____

Example 3:

Please indicate how frequently you use different banking methods. For each of the banking methods listed below, circle the number that best describes the frequency you typically use each method.

Banking Methods	Never Use								Use Very Often		
Inside the bank	0	1	2	3	4	5	6	7	8	9	10
Drive-up window	0	1	2	3	4	5	6	7	8	9	10
24-hour ATM	0	1	2	3	4	5	6	7	8	9	10
Debit card	0	1	2	3	4	5	6	7	8	9	10
Bank by mail	0	1	2	3	4	5	6	7	8	9	10
Bank by phone	0	1	2	3	4	5	6	7	8	9	10
Bank by Internet	0	1	2	3	4	5	6	7	8	9	10

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Exhibit 7.4 - Examples of Interval Scales

Example 1:

How likely are you to recommend the Santa Fe Grill to a friend?

Definitely Will Not Recommend

1 2 3 4 5

Definitely Will Recommend

6 7

Example 2:

Using a scale of 0–10, with "10" being Highly Satisfied and "0" being Not Satisfied At All, how satisfied are you with the banking services you currently receive from (read name of primary bank)?
Answer: _____

Example 3:

Please indicate how frequently you use different banking methods. For each of the banking methods listed below, circle the number that best describes the frequency you typically use each method.

Banking Methods	Never Use								Use Very Often		
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Bank by mail	0	1	2	3	4	5	6	7	8	9	10
Bank by phone	0	1	2	3	4	5	6	7	8	9	10
Bank by Internet	0	1	2	3	4	5	6	7	8	9	10

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Exhibit 7.5 - Examples of Ratio Scales

Example 1:
Please circle the number of children under 18 years of age currently living in your household.
0 1 2 3 4 5 6 7 If more than 7, please specify: _____

Example 2:
In the past seven days, how many times did you go shopping at a retail shopping mall?
_____ # of times

Example 3:
In years, what is your current age?
_____ # of years old

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Scales to Measure Attitudes and Behaviors

- **Likert scale:** An ordinal scale format that asks respondents to indicate the extent to which they agree or disagree with a series of mental belief or behavioral belief statements about a given object

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The end!

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