

Marketing Research

Chapter 9

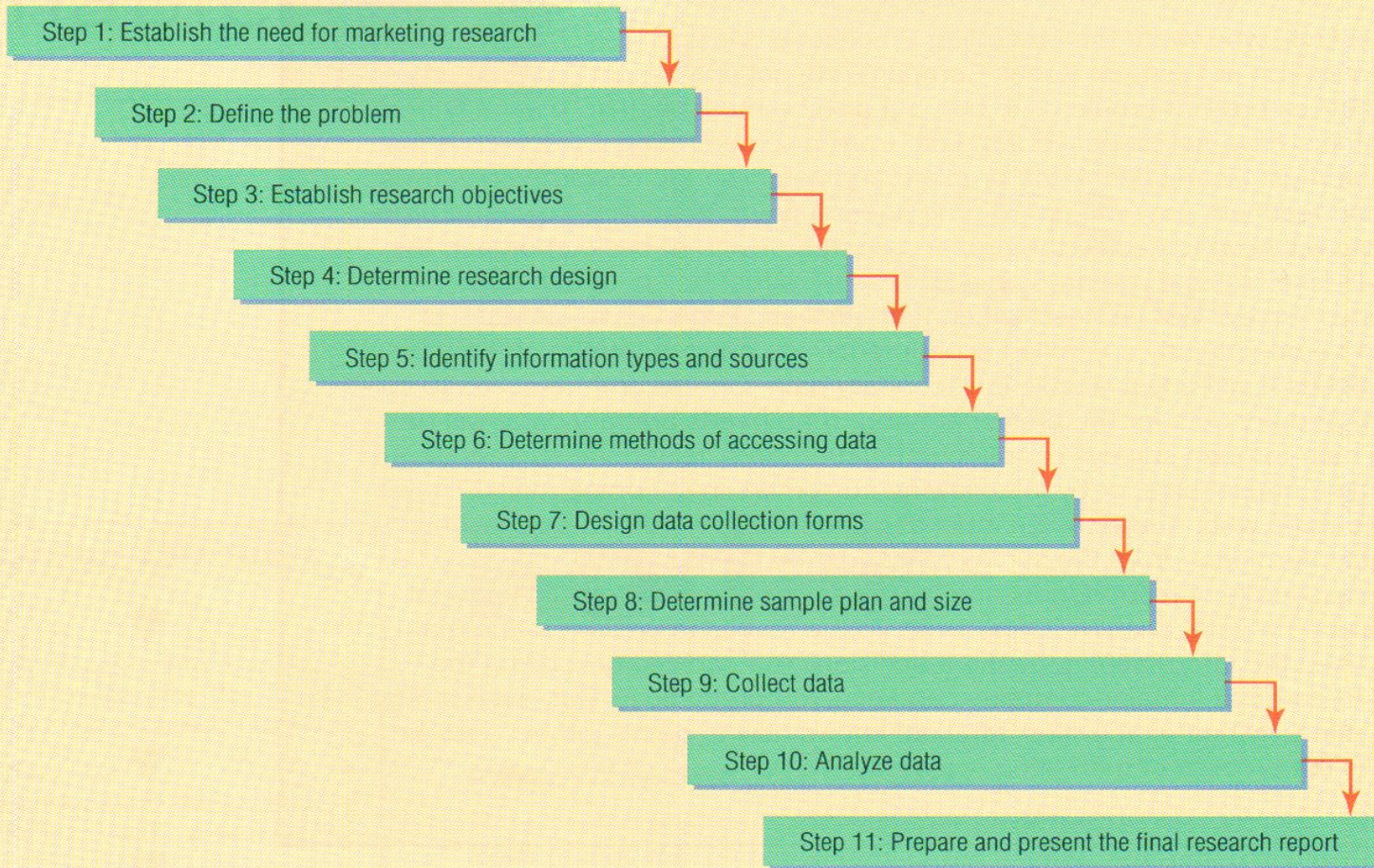
Measurement in Marketing Research

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Chapter 9.

Measurement in Marketing Research– step 7.

Chapter 2 The Marketing Research Process

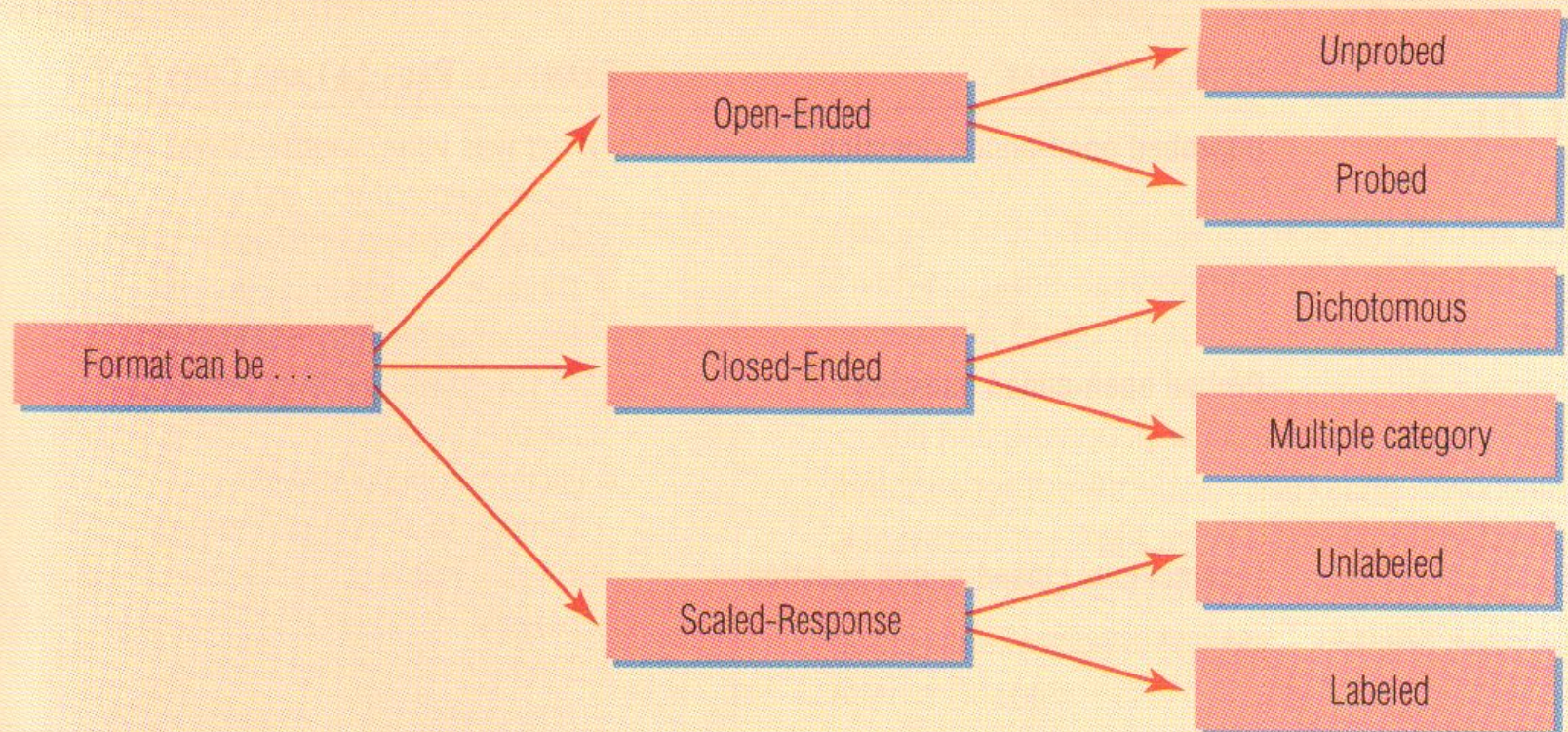


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A diagram of six alternative question-response formats



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Open-ended question

Unprobed: “What was your reaction to the Sony DVD player adv. you saw on TV?”

+

-

Probed: “Did you have any other thoughts or reactions to the adv.?”

+

-

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Closed-ended question

Dichotomous: “Do you agree or disagree with the statement ‘Sony DVD players are better than Panasonic DVD players’?”

Multiple-category: “If you were buy a DVD player tomorrow, which brand would you be most likely to purchase? Would it be, (a) Panasonic, (b) General Electric, (c) Sony, (d) JVC, or (e) some other brand?”

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Scaled-response question

Unlabeled: “On a scale of 1 to 7, how would you rate the Sony DVD player on ease of operation?”

Labeled: “Do you disagree strongly, disagree, agree, or agree strongly with the statement ‘Sony DVD players are a better value than General Electric DVD players’?”

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Consideration in choosing a question-response format

How does the researcher decide on which option to use?

- Nature of the property being measured

The properties of the **construct** being measured often determine the appropriate response format.

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Chapter 9.

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- **Previous research studies**
- **Data collection mode.** The method of data collection determines the appropriate response format.
- **Ability of the respondent.** Some respondents may relate better to one type of response format than another.
- **Scale level desired.** If a researcher desires to use higher-level statistical analysis, the question's response format must be corresponding.

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Basic concepts in measurement.

measurement – is determining the amount or **intensity** of some characteristic of interest to the researcher.

measurement – is determining how much of a property is possessed by an object.

But what we are really measuring?

Properties (sometimes called attributes or qualities) of Object.



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Scale characteristics are:

Description – refers to the use of a unique descriptor, or label, to stand for each designation in the scale.

Order – refers to the **relative** sizes of the descriptors.

Includes such descriptors, as “greater than”, “less than”, “equal to”.

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Chapter 9.

Measurement in Marketing Research.

A scale has the characteristic of **distance** when absolute differences between the descriptors are known and may be expressed in units.

A scale is said to have the characteristic of **origin** if there is a unique beginning or true zero point for the scale.

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Chapter 9.

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Why is it important to know
the characteristics of scales



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The characteristics possessed by a scale determine that scale's level of measurement.

Measurement Scale levels differ by what scale characteristics they possess

LEVEL OF MEASUREMENT	<i>Scale Characteristics Possessed</i>			
	DESCRIPTION	ORDER	DISTANCE	ORIGIN
Categorical Scales				
Nominal scale	+	—	—	—
Ordinal scale	+	+	—	—
Metric Scales				
Interval scale	+	+	+	—
Ratio scale	+	+	+	+

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Chapter 9.

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A. Nominal-Scaled Questions

1. Please indicate your gender. Male Female
2. Check all the brands you would consider purchasing.
 Sony
 Zenith
 RCA
 Curtis Mathes
3. Do you recall seeing a Delta Airlines advertisement for "carefree vacations" in the past week?
 Yes No

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Chapter 9.

Measurement in Marketing Research.

B. Ordinal-Scaled Questions

1. Please rank each brand in terms of your preference. Place a "1" by your first choice, a "2" by your second choice, and so on.

Arrid

Right Guard

Mennen

2. For each pair of grocery stores, circle the one you would be more likely to patronize.

Kroger versus First National

First National versus A&P

A&P versus Kroger

3. In your opinion, would you say the prices at Wal-Mart are

Higher than Sears

About the same as Sears

Lower than Sears

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Chapter 9.

Measurement in Marketing Research.

C. Interval-Scaled Questions

1. Please rate each brand in terms of its overall performance.

BRAND	RATING (CIRCLE ONE)									
	Very Poor					Very Good				
Mont Blanc	1	2	3	4	5	6	7	8	9	10
Parker	1	2	3	4	5	6	7	8	9	10
Cross	1	2	3	4	5	6	7	8	9	10

2. Indicate your degree of agreement with the following statements by circling the appropriate number.

STATEMENT	STRONGLY DISAGREE				5	STRONGLY AGREE			
	a. I always look for bargains.	1	2	3	4	5			
b. I enjoy being outdoors.	1	2	3	4	5				
c. I love to cook.	1	2	3	4	5				

3. Please rate Pontiac Firebird by checking the line that best corresponds to your evaluation of each item listed.

Slow pickup	_____	_____	_____	_____	Fast pickup
Good design	_____	_____	_____	_____	Bad design
Low price	_____	_____	_____	_____	High price

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Chapter 9.

Measurement in Marketing Research.

D. Ratio-Scaled Questions

1. Please indicate your age.

____ Years

2. Approximately how many times in the last month have you purchased anything over \$5 in value at a convenience store?

0 1 2 3 4 5 More (specify: ____)

3. How much do you think a typical purchaser of a \$100,000 term life insurance policy pays per year for that policy?

\$ ____

4. What is the probability that you will use a lawyer's services when you are ready to make a will?

____ percent

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Chapter 9.

Measurement in Marketing Research.

Номиналь ная шкала (Nominal scale)	Компания	Порядковая шкала (Ordinal scale) Ранжирование по просмотра		Интерваль ная шкала (Interval scale) частоте новостей	Пропорцио нальная шкала (Ratio scale)
I	II	III	IV	V (1 – 8)	VI
1	ОРТ	1	10	8	0
2	РТР	4	45	6	0
3	Волга	3	33	7	114
4	Диалог	5	51	4	0
5	Сети НН	2	24	8	215
6	ННТВ	6	60	4	0

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Chapter 9.

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Шкала	Основные характеристики	Примеры из жизни	Маркетинговые примеры
Номинальная	Номера, идентифицирующие какие-либо объекты	Номера футбольных игроков, номера записей в базе данных	Пол; номера, присвоенные торговым маркам при проведении маркетингового исследования
Порядковая	Показывает, что между объектами существует различие по какому-либо параметру, но не измеряет различие в количественном выражении	Результаты выступления на спортивных соревнованиях (1,2,3 место и т.д.)	Оценка предпочтений
Интервальная	Различия между объектами могут быть измерены в количественном выражении.	Температура по Цельсию и Фаренгейту.	Количественная оценка мнения потребителей, восприятия ими свойств того или иного товара или товарной группы.
Пропорциональная	Различия между объектами могут быть измерены в количественном выражении. Нулевая отметка фиксирована.	Длина, вес.	Возраст, доход, издержки, продажи, доля рынка и т. д.

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Chapter 9.

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Workhorse scales used in marketing research

Marketing research often wish to measure subjective properties of consumers.

Subjective constructs:

- | | |
|---------------|---------------|
| - Attitudes | - Impressions |
| - Opinions | - Perceptions |
| - Evaluations | - Feelings |
| - Beliefs | - Intentions |

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Chapter 9.

Measurement in Marketing Research.

Scaled-response questions are used to measure unobservable constructs

Table 10.5 The Intensity Continuum Underlying Scaled-Response Question Forms

EXTREMELY NEGATIVE		NEUTRAL			EXTREMELY POSITIVE	
Strongly Disagree 1	Somewhat Disagree 2	Neither Agree nor Disagree 3	Somewhat Agree 4	Strongly Agree 5		
Extremely Dissatisfied 1	Very Dissatisfied 2	Somewhat Dissatisfied 3	No Opinion 4	Somewhat Satisfied 5	Very Satisfied 6	Extremely Satisfied 7
Extremely Unfavorable 1	Very Unfavorable 2	Somewhat Unfavorable 3	No Opinion 4	Somewhat Favorable 5	Very Favorable 6	Extremely Favorable 7

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Chapter 9.

Measurement in Marketing Research.

The modified Likert Scale

Table 10.6 The Likert Question Format Can Be Used in Telephone Surveys, but Respondents Must Be Briefed on Its Format or Otherwise Prompted

(INTERVIEWER: READ) I have a list of statements that I will read to you. As I read each one, please indicate whether you agree or disagree with it.

Are the instructions clear? (IF NOT, REPEAT)

(INTERVIEWER: READ EACH STATEMENT. WITH EACH RESPONSE, ASK) Would you say that you (dis)agree STRONGLY or (dis)agree SOMEWHAT?

STATEMENT	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
Levi's Engineered jeans are good looking.	1	2	3	4	5
Levi's Engineered jeans are reasonably priced.	1	2	3	4	5
Your next pair of jeans will be Levi's Engineered jeans.	1	2	3	4	5
Levi's Engineered jeans are easy to identify on someone.	1	2	3	4	5
Levi's Engineered jeans make you feel good.	1	2	3	4	5

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Chapter 9.

Measurement in Marketing Research.

Table 10.7 Examples of Lifestyle Statements on a Questionnaire

Please respond by circling the number that best corresponds to how much you agree or disagree with each statement.

STATEMENT	STRONGLY DISAGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	AGREE	STRONGLY AGREE
I shop a lot for "specials."	1	2	3	4	5
I usually have one or more outfits that are of the very latest style.	1	2	3	4	5
My children are the most important thing in my life.	1	2	3	4	5
I usually keep my house very neat and clean.	1	2	3	4	5
I would rather spend a quiet evening at home than go out to a party.	1	2	3	4	5
It is good to have a charge account.	1	2	3	4	5
I like to watch or listen to baseball or football games.	1	2	3	4	5
I think I have more self-confidence than most people.	1	2	3	4	5
I sometimes influence what my friends buy.	1	2	3	4	5
I will probably have more money to spend next year than I have now.	1	2	3	4	5

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Chapter 9.

Measurement in Marketing Research.

What if you have a REAAALLY long
Questionnaire?

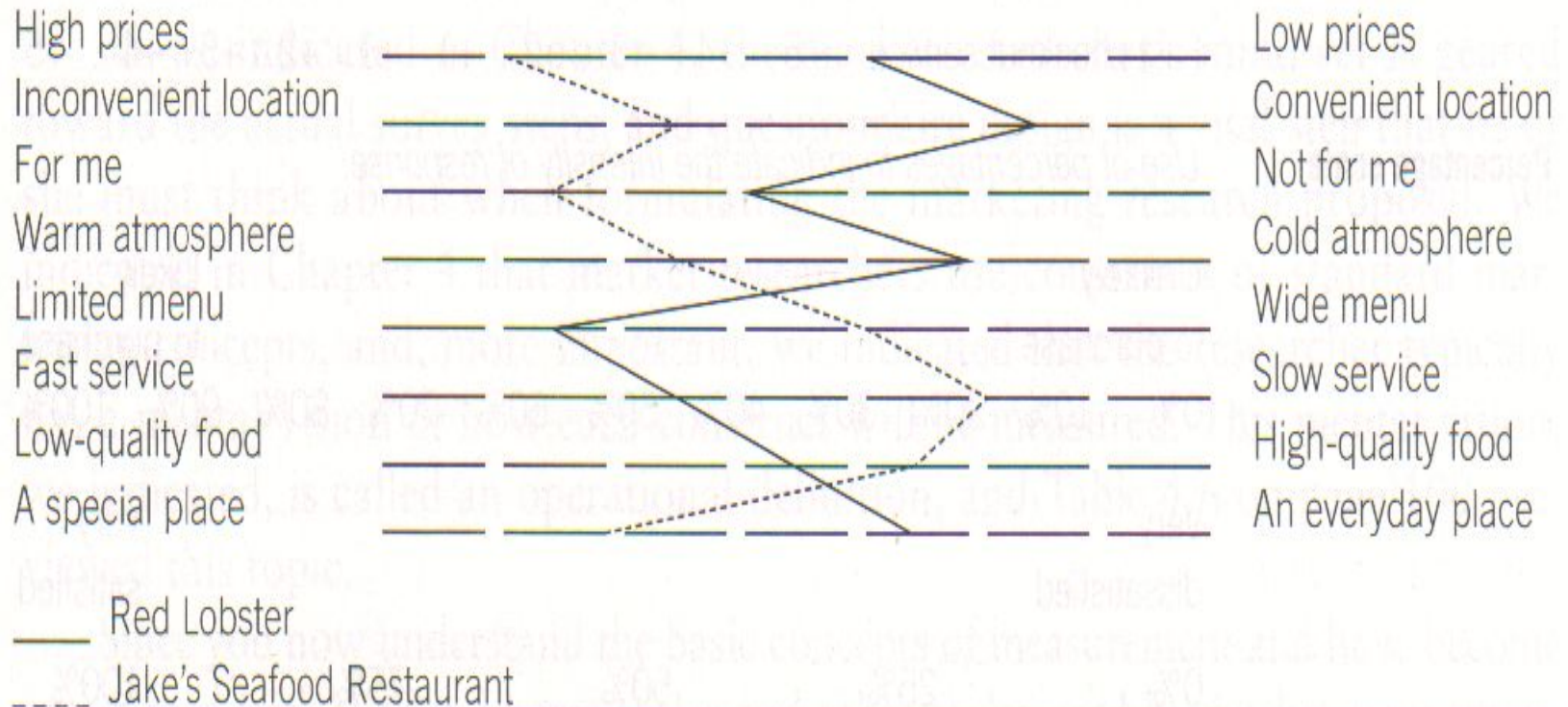
RESPONDENT	CORE SET	SUBCOMPONENT QUESTION SETS		
		1	2	3
A				
B				
C				
D				

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Chapter 9.

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PRESENTATION OF THE RESULTS SHOWS RED LOBSTER'S COMPETITIVE STRENGTHS

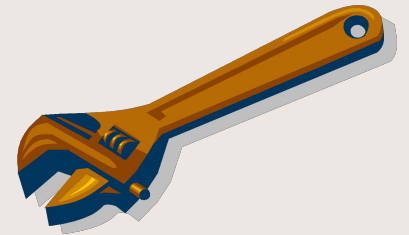


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Chapter 9.

Measurement in Marketing Research.

There are a great many variations of scaled-response question format used in marketing research.




Several examples are provided lower:

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Chapter 9.

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SCALE NAME	DESCRIPTION AND EXAMPLES																																												
Graphic rating scale	<p>Use of a line or pictorial representation to indicate intensity of response:</p> <p>Unimportant \leftarrow ----- \rightarrow Extremely Important</p>																																												
	<p style="text-align: center;">  </p>																																												
Itemized rating scale	<p>Use of a numbered or labeled continuous scale to indicate intensity of response:</p> <table style="width: 100%; text-align: center;"> <tr> <td><input type="checkbox"/> 1</td> <td><input type="checkbox"/> 2</td> <td><input type="checkbox"/> 3</td> <td><input type="checkbox"/> 4</td> <td><input type="checkbox"/> 5</td> </tr> <tr> <td>Poor</td> <td>Fair</td> <td>Good</td> <td>Very Good</td> <td>Excellent</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table>	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	Poor	Fair	Good	Very Good	Excellent	_____	_____	_____	_____	_____																													
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5																																									
Poor	Fair	Good	Very Good	Excellent																																									
_____	_____	_____	_____	_____																																									
Stapel scale	<p>Use of numbers, usually -5 to +5 to indicate the intensity of response:</p> <p>Fast checkout service -5 -4 -3 -2 -1 +1 +2 +3 +4 +5</p>																																												
Percentage scale	<p>Use of percentages to indicate the intensity of response:</p> <table style="width: 100%; text-align: center;"> <tr> <td>Unlikely to purchase</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Likely to purchase</td> </tr> <tr> <td>0%</td> <td>10%</td> <td>20%</td> <td>30%</td> <td>40%</td> <td>50%</td> <td>60%</td> <td>70%</td> <td>80%</td> <td>90%</td> <td>100%</td> </tr> <tr> <td>Very dissatisfied</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Very satisfied</td> </tr> <tr> <td>0%</td> <td></td> <td>25%</td> <td></td> <td></td> <td>50%</td> <td></td> <td></td> <td>75%</td> <td></td> <td>100%</td> </tr> </table>	Unlikely to purchase										Likely to purchase	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Very dissatisfied										Very satisfied	0%		25%			50%			75%		100%
Unlikely to purchase										Likely to purchase																																			
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%																																			
Very dissatisfied										Very satisfied																																			
0%		25%			50%			75%		100%																																			

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Chapter 9.

Measurement in Marketing Research.

Issues in the use of sensitivity scales

Using scaled-response formats requires the researcher to confront 2 issues.

1. Whether or not to include the middle, neutral-response option.

What are the arguments for and against the inclusion of a neutral response position in a scale?

2. Is there a need to have a completely symmetric scale?

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Chapter 9.

Measurement in Marketing Research.

Now you **understand** the basic concepts of measurement

and have become acquainted with the workhorse scales and other scales used by market researcher.

What scale to use when

And we may have a quick reference to appropriate scales pertaining to the constructs most often measured by market researchers.

Table

Commonly Used Scales for Selected Constructs

CONSTRUCT	RESPONSE SCALE
Awareness or possession	Yes–No OR check mark from a list of items Example: <i>Which of the following kitchen appliances do you own? (Check all that apply.)</i>
Brand/store image	Semantic differential (with 4 to 7 scale points) using a set of bipolar adjectives Example: <i>Refer to example on page 285.</i>
Demographics	Standard demographic questions (gender, age range, income range, etc.) Examples: <i>Indicate your gender</i> ___ Male ___ Female <i>What is your age range?</i> ___ 20 or younger ___ 21–30 ___ 31–40 ___ 41–50 ___ 51 or older
Frequency of use	Labeled (Do Not Use, Infrequently, Occasionally, Often, Quite Often, Very Often) OR number of times per relevant time period (e.g., last month). Example: <i>How often do you buy takeout Chinese dinners?</i>
Importance	Labeled (Unimportant, Slightly Important, Important, Quite Important, Very Important) OR numbered rating using 5 scale points Example: <i>How important is it to you that your dry cleaning service has same-day service?</i>
Intention to purchase	Labeled (Unlikely, Somewhat Likely, Likely, Quite Likely, Very Likely) OR 100% probability Example: <i>The next time you buy cookies, how likely are you to buy a fat-free brand?</i>
Lifestyle/opinion	Likert (Strongly Disagree–Strongly Agree with 5 scale points) using a series of lifestyle statements Example: <i>Indicate how much you agree or disagree with each of the following statements.</i> 1. <i>I have a busy schedule.</i> 2. <i>I work a great deal.</i>
Performance or attitude	Labeled (Poor, Fair, Good, Very Good, Excellent) OR numbered rating using 5 scale points OR Stapel using 5 scale points Example: <i>Indicate how well you think Arby's performs on each of the following features.</i> 1. <i>Variety of items on the menu</i> 2. <i>Reasonable price</i> 3. <i>Location convenient to your home</i>
Recall or recognition	Yes–No OR check mark from a list of items Example: <i>Where have you seen or heard an ad for Pets-R-Us in the past month? (Check all that apply.)</i>
Satisfaction	Labeled (Not Satisfied, Somewhat Satisfied, Satisfied, Quite Satisfied, Very Satisfied) OR 100% satisfaction scale Example: <i>Based on your experience with Federal Express, how satisfied have you been with its overnight delivery service?</i>

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Chapter 9.

Measurement in Marketing Research.

Reliability and validity of measurement

Ideally, a measurement used by a market researcher should be **reliable and valid**.

Picture a bull's eye target with several bullet holes clustered very close together, but off the center of the target. This is reliability: the rifle was pointed at the center, but bullets were consistently off-center and in one spot. When the rifle sights are aligned so that the bullet hits dead center when the rifle is aimed there, it is valid. If the holes are consistently in the center area, the sight is valid and reliable



Marketing Research

Chapter 9.

Measurement in Marketing Research.

Face validity (an intuitive form of judgment): Does the question “look like” it measures what it is supposed to measure?



Marketing Research

Chapter 9.

Measurement in Marketing Research - Case.

Case 6.1. Mike, the owner of Mike's Market, which is a convenience store, is concerned about low sales. He reads in a marketing textbook that the image of a store often has an impact on its ability to attract its target market. He contacts the All-Right Research Company and commissions it to conduct a study that will shape his store's image. You are charged with the responsibility of developing the store image part of the questionnaire.

Design a semantic differential scale that will measure the relevant aspects of Mike's Market's image. In your work on this scale, you must do the following: (a) brainstorm the properties to be measured, (b) determine the appropriate bipolar adjectives, (c) decide on the number of scale points, and (d) indicate how the scale controls for halo effect.