Marketing Research

Key Terms: marketing information system, symptom vs. problem, primary data, panel data, secondary data, exploratory research, survey, sample, experiment, focus group, and depth interview.

A **marketing information system** is ongoing and information is collected on whether or not it will be used. Many colleges have a student information system, a type of marketing information system, that routinely gathers information such as the number of majors by discipline, the number of students taking courses at various hours, the number of closed sections by discipline, etc. One college recently did a study to determine the number of students by zip code of residence and by high school. This information was in their information system and they found that a large number of their students came from a small number of zip codes and high schools.

Marketing research is used to identify problems and opportunities and usually has a specific objective. It is also used to solve a specific problem or to provide assistance in making a decision.

Steps in Marketing Research:
(1)Define the problem: The first step in marketing research is to define the **problem**. It is easier to solve a problem once it is defined. Declining sales are a **symptom** and can be caused by such factors as too high a price, too low a price, unattractive warranty, poor product performance, bad package, inadequate distribution, etc. How can you solve a problem when you do not know whether to change the price, improve the warranty, redesign the package, improve distribution, or simply wait for the economy to improve? Exploratory research is used to help define the problem.

A college is suffering from declining enrollments. That is a symptom. What is the problem? Is it high tuition, poor quality of instructors, poor course selection, not enough popular majors, not enough parking, changing demographics of feeder high schools, or declining reputation? Note that you cannot come up with a solution unless you do some research. One college found that its sinking enrollments were due to security issues. Another college discovered that it had to introduce a business major to make enrollments increase.

(2)Develop the research plan: What kind of data is needed to come up with a strategy? How is the data going to be collected?

(3)Find the information that is needed. Sometimes you need primary data; sometimes secondary data is sufficient.

Secondary data: Data that has already been collected and that you have to find. The advantage of using secondary data is that it can save you a great deal of time. It takes much longer to collect new data (primary data) than to retrieve information that is already out there. Also, it is much cheaper to get secondary data than primary data.

--An organization's own internal records (sales, customer complaints, etc.)
--Census information - Check out the US Census Bureau homepage:
https://www.census.gov/
--Trade association data
--journals
--Internet

US Business Advisor – Find useful government information on the Web
https://www.usa.gov/business

AC Nielsen is the largest marketing research company:
https://www.nielsen.com/

Primary data: Data that you have to collect yourself. This could take the form of surveys, experiments, observation study, focus groups, or depth interviews. Obviously, this takes quite a bit of time to collect and can be quite expensive.

--**Surveys**. It is usually too costly to take a census of the entire population (there are more than 330 million people in the United States). Generally, we study a sample, i.e., a subset of the population. Typical sample sizes are between 1,000 and 5,000 people. If a sample is done correctly, it can be representative of the entire population. Random samples have the advantage that they are supposed to be representative. With a simple random sample, every element in the population has an equal chance of being selected. A convenience sample of say 500 people shopping in a mall may not be representative. With surveys it is important to get a representative sample (which means a decent rate of response) and honest/accurate responses. A survey is meaningless if it does not represent the population you are studying.

Some types of surveys are: mail, telephone, personal interview, mall intercepts, fax, e-mail, and Web. One serious problem with mail surveys is the low rate of response. If you send out a mail survey and get a 15% rate of response, it is quite likely that your results will not be representative. Much marketing research today is conducted via telephone and Internet (online) surveys. Telephone and online surveys are quick and not very expensive. Some of you may have completed an online survey. This is becoming another relatively inexpensive way to survey people.

--**Experimentation**. The key elements of an experiment are randomization, manipulation, and control. Subjects are randomly assigned to different conditions in order to test the effect of certain factors. For an experiment to be valid, you need a control group. For instance, the classical studies on shelf space were conducted by trying different amounts of shelf space (e.g., 3 feet vs. 6 feet vs. 9 feet). A product was randomly assigned to the three conditions and in, say, 50 stores the product was allocated 3 feet of shelf space, 6 feet of space in another 50 stores, and 9 feet of space in another 50 stores. The same price is used in all stores and, in fact, you try to keep everything as similar as possible. The manipulated variable is shelf space and you try to

keep everything else as constant as possible (controlled variables). Thus, experiments are used to determine cause-and-effect relationships. Studies show that shelf space is very important for impulse items and not very important for staples.

Experiments provide information on actual behaviors whereas surveys are often attitudinal. Experiments are very useful to determine how customers will react to changes in packaging, pricing, and advertising. People cannot answer questions such as will you buy more of Brand X in the red package than the blue package? To answer this you must use an experiment.

--**Observation**. There are two types of observations: by machine and by people. Occasionally, marketing research involves people observing people. For example, you might use researchers disguised as shoppers and place them in stores in order to determine whether shoppers read the ingredients before purchasing a new product. This, however, is rarely done in marketing. Most research involves observation by machine. For instance, closed-circuit cameras are used to monitor customers and study such things as shopping patterns (studies show that customers like to start with the produce section in a supermarket). Television ratings are obtained by devices connected to a sample of households that own TV sets. Scanners at checkout counters in supermarkets also provide a great deal of information. A supermarket can quickly discover how well different brands are doing every day. They can see what effect changing the location of a brand (or increasing shelf space) has on sales.

--**Focus Group Interviews** – are very popular in research today. Most focus groups consist of 6 to 12 individuals and a moderator. Many open-ended questions are used; the goal is to get the group to interact. The response of one person may get other people in the group to speak up. Focus groups are sometimes used to find out what problems customers have with products and to help come up with ideas for new products. For instance, a company might conduct a focus group with 10 users of its product to find out how it is being used, problems with it, and what can be done to improve it.

--**Depth Interviews** – These are detailed, one-on-one interviews and may last for 90 minutes or so. It is somewhat like a psychiatric interview (the one where the psychiatrist has you sit or lie down on a couch and engage in a lengthy, free-flowing conversation). The goal is to get the interviewee to relax and talk. Problems with new products might be discussed. One study I am considering involves asking students whether they considered dropping out of college as freshman, and why.

Focus groups and depth interviews are **qualitative research** techniques. With qualitative research, you try to get consumers to open up so you can find out how they really feel. You want considerably more than simple yes or no answers. There is much reliance (possibly too much) on the subjective interpretations of the researcher. In fact, it is quite likely that two companies working independently and doing focus groups for a client may come to very different conclusions. Researchers refer to this problem as lack of reliability. Some companies will purposely hire two different marketing research firms

to perform qualitative research and then see whether the results are the same or not, *i.e.*, check for reliability.

Panel data: Some research companies use a sample of consumers or stores and take measurements (e.g., sales) on a regular basis (daily, weekly, monthly, etc.). This is known as panel data. Some of you may be members of a consumer panel.

(4) Interpret the Data and Write the Business Research Report. The data must be analyzed properly and recommendations as to the best course of action must be made. Research papers often have the following headings: Introduction, Method, Results, Conclusions (or Discussion).

A great deal of marketing research deals with customer satisfaction. Are customers satisfied? What can be done to increase satisfaction? Research helps a company discover why they are losing customers (customer attrition). What can be done to stop the loss of customers? Can anything be done to get them back?

The Kerin, Hartley, and Rudelius marketing textbook has an interesting example of how marketing research is used by the film industry to come up with a good title for a film. Researchers found that the public did not like the title of a movie Clint Eastwood was directing-- *Rope Burns*. The title was changed to *Million Dollar Baby*. **A good movie title helps position the film and may also affect attendance.** Even the ending of a film might be changed after a test screening (film shown to an audience of several hundred people in the target market for the film). A good ending is important because an unsatisfying ending may reduce customer satisfaction and the word of mouth for a film. A film that has a satisfying ending (not necessarily a happy one) will be talked about for a long time. What do you think of the ending of the film *Titanic*? Not a happy one but certainly memorable. I never did like the ending of *Gone With the Wind* but have to admit that it works. Nowadays, many movie studios use test screenings to see whether anything can be improved (title, music, characters, ending of film, etc.). I suspect that film directors and writers do not like the idea that a few hundred viewers attending a test screening (or a "sneak preview") will have input on how a film ends and decide which characters may not make it into the final edit of the film.

Those of you who are interested in law might be interested in doing some research on the subject of mock juries and jury research. There are firms that use mock juries as a type of focus group. The goal is to analyze how juries will react to different kinds of summaries, witnesses, and/or evidence. A mock jury can help a lawyer make a more effective presentation before the real jury.

Need help in constructing a questionnaire? This paper may be of value to you

THE ART OF QUESTIONNAIRE DESIGN: A MODULAR APPROACH
by HH Friedman and LW Friedman

Constructing a useful and effective questionnaire can be a formidable task, especially for a novice. The purpose of this paper is to introduce a simple approach that can be used to instruct individuals in the art of questionnaire construction. One can be efficiently taught to create comprehensive and reliable questionnaires using this method. This approach is based on the idea that there are basically five major types of questions that comprise many questionnaires.

I. <u>Frequency/Behavioral</u>

The first type of question, which is often placed at the beginning of the questionnaire, revolves around frequency of performing a certain type of behavior. These questions might deal with how long a certain behavior has been performed, how often, how much, etc. For example:

How long have you been shopping at this Rite Aid pharmacy?

__ Less than 6 months
__ From 6 months to less than 1 year
__ From 1 year to less than 3 years
__ From 3 years to less than 5 years
__ 5 years or more

During the past six months, about how often have you visited this Sears store?

__ More than once a week
__ About once a week
__ A few times a month
__ About once a month
__ Less than once a month

During the past thirty days, about how many times have you used each of the following drugs?

Marijuana: _____
Heroin: _____
Cocaine: _____
Crack: _____
LSD: _____

About how much money do you usually spend on a pair of jeans?

___Less than $20.00
___$20.00 to $39.99
___$40.00 to $59.99
___$60.00 to $79.99
___More than $80.00

The last example is not a frequency question but it does inquire about the extent of the behavior, in this case spending. This is not a "how many" but a "how much" question. It is important to avoid vague terms such as "regularly," "often," and "frequently," in the response categories since they provide little useful information. What does it mean if a respondent shops at Sears "frequently"? Does this mean every day? Once a week? Twice a month? We have no way of knowing. What is frequent for one person may be infrequent for another. (Woody Allen made this very point, in the movie Annie Hall, with respect to conjugal sex.)

In some situations, the researcher may be forced to ask a frequency of behavioral type of question using a likelihood scale. It may be impractical, if not impossible, to use response categories with specific frequencies in them.

How likely are you to take each of the following types of courses as free electives?

	very likely	likely	neither likely nor unlikely	unlikely	very unlikely
Accounting:	____	____	____	____	____
Finance:	____	____	____	____	____
Marketing:	____	____	____	____	____
Management:	____	____	____	____	____
Statistics:	____	____	____	____	____
Computers:	____	____	____	____	____

II. Importance

The second type of question deals with the importance of various factors in the subject's selection of a product or service. For example,

How important is each of the following factors in your choice of a toothpaste?

	extremely important	important	slightly important	not important
Taste:	____	____	____	____
Price:	____	____	____	____
Cavity prevention:	____	____	____	____
Whitening ability:	____	____	____	____
Tartar control:	____	____	____	____

How important is each of the following factors in your choice of a supermarket in which to shop?

	extremely important	important	slightly important	not important
Price:	_____	_____	_____	_____
Cleanliness of the store:	_____	_____	_____	_____
Convenient parking:	_____	_____	_____	_____
Courteous employees:	_____	_____	_____	_____
Fast checkout:	_____	_____	_____	_____
Senior citizen discounts:	____	_____	_____	_____
Coupon policies:	_____	_____	_____	_____
Quality of the produce:	_____	_____	_____	_____
Quality of the meats:	_____	_____	_____	_____

How important is each of the following factors in your choice of a job?

	extremely important	important	slightly important	not important
Pay:	_____	_____	_____	_____
Opportunity for Advancement:	_____	_____	_____	_____
Job security:	_____	_____	_____	_____
Fringe benefits:	_____	_____	_____	_____
Status:	_____	_____	_____	_____
Challenging/interesting work:	_____	_____	_____	_____
Friendly co-workers:	_____	_____	_____	_____
Safe work environment:	_____	_____	_____	_____
Effective and fair management:	____	_____	_____	_____

The purpose of this question is to determine which factors are important to your respondents. Different groups of customers (or prospective customers) will find different things to be important. For example, elderly people might not be so concerned with slower checkouts if this means lower prices. Or, the opportunity for advancement may be more important for some jobs and less important for others. Management must know what is important to each group in order to decide which features to concentrate on.

III. Performance Rating

The third type of question usually follows the importance question and deals with the performance rating of various features (attributes) of a product or service. For example:

Please rate Crest toothpaste on each of the following factors:

	very good	good	fair	poor	very poor
Taste:	____	____	____	____	____
Price:	____	____	____	____	____
Cavity prevention:	____	____	____	____	____
Whitening ability:	____	____	____	____	____
Tartar control:	____	____	____	____	____
Overall:	____	____	____	____	____

Note that the same factors used in the importance question can be used in the performance-rating question. The "overall" category was added in order to obtain an overall performance rating. The importance and performance rating questions can be used together in an importance/performance analysis (Martilla and James, 1977) to determine the important attributes or features that the organization is not performing well on. Resources should be allocated to improving features that are important to customers (or prospective customers) and which the organization is not doing a good job in satisfying. It would be foolish to improve features with which the customers are already very satisfied. Thus, if Crest toothpaste determines that its prospective customers find taste to be very important and only rate the taste of Crest as "fair," it should focus resources on improving the taste of Crest.

Other ways to ask for an overall performance rating include the following:

Overall, how would you rate the performance of Verizon?

__excellent __very good __good __fair __poor __very poor __awful

Overall, how satisfied are you with the performance of Verizon?

_____extremely satisfied
_____satisfied
_____neither satisfied nor dissatisfied
_____dissatisfied
_____extremely dissatisfied

Using a 9-point scale, where 9 means extremely satisfied and 1 means not at all satisfied, how satisfied are you with Dell laptops overall?

Extremely satisfied   Not at all satisfied
                    9   8   7   6   5   4   3   2   1

Sometimes it is a good idea to follow up an overall performance rating question with an open-ended question asking for the reason respondents answered the way they did. This can be useful in determining areas of dissatisfaction.

Please describe briefly why you responded the way you did in Question X.
_____

_____

Subjects can be asked to indicate their intent to buy or use a product or service, or whether they would recommend it to a friend.

Would you recommend a General Electric washing machine to a friend?

__definitely
__probably
__might or might not
__probably not
__definitely not

Please indicate the chance that you will buy a Dell personal computer if you need a computer:

__definitely would buy
__most probably would buy
__probably would buy
__might or might not buy
__probably would not buy
__most probably would not buy
__definitely would not buy

These questions should also be followed up with an open-ended question asking for the reason for the response.

Another type of open-ended question which can be of great value is one that asks respondents to list improvements that should be made. For example:

What improvements, if any, should be made to better the New York City subway system? _____

_____

What, if anything, do you dislike about Pepsi Cola?
_____
_____

In some situations, a researcher might find it more useful to have respondents describe how the product/service can be improved rather than asking, in effect, how well am I currently doing (Waddell, 1995). Consumers may rate a product as "good" but still feel that it can be improved dramatically. If this is the case, they might switch to a competitor who offers the improvements even if the current product performs "good." The rating of "good" simply means that the product performs adequately.

Please indicate the amount of improvement, if any, needed to better our restaurant in each of the following:

Amount of Improvement Needed

	none	slight	some	much	huge
Taste of food:	____	____	____	____	____
Prices:	____	____	____	____	____
Speed of service:	____	____	____	____	____
Portion size:	____	____	____	____	____
Friendliness of staff:	____	____	____	____	____
Variety of menu:	____	____	____	____	____

It is often advisable to also determine the performance ratings of competitor's brands in order to find out where the areas of superiority lie. These areas may then be highlighted in advertising.

IV. <u>Agree/Disagree Statements</u>

The fourth type of question is especially useful when the researcher is trying to determine respondents' opinions, beliefs and attitudes and it is difficult to use hedonic rating scales with adjectives as response categories. It may be simpler to construct statements and ask respondents how strongly they agree or disagree with each of the statements. For example:

Please indicate how strongly you agree or disagree with each of the following statements:

1. People who exercise regularly live longer.

____ strongly agree
____ agree
____ neither agree nor disagree
____ disagree
____ strongly disagree

2. Exercise is more important than dieting in losing weight.

____ strongly agree
____ agree
____ neither agree nor disagree
____ disagree
____ strongly disagree

3. The best exercise for losing weight is bicycling.

____ strongly agree
____ agree
____ neither agree nor disagree
____ disagree
____ strongly disagree

4. The most boring exercise is jogging.

____ strongly agree
____ agree
____ neither agree nor disagree
____ disagree
____ strongly disagree

The agree/disagree questions can be laid out with the response categories as column headings just as with the importance and performance rating questions presented earlier.

The Likert scale (or summated ratings scale), a popular attitude scale used in research, requires subjects to indicate how strongly they agree or disagree with a series of statements relating to a particular behavior or object. A total attitude score can be computed for each subject after numerical values of 1 to 5 are assigned to the response categories. Reverse scoring is necessary for unfavorable statements; strongly agreeing with a favorable statement (e.g., "New York City is the best city in the world") would receive the same score as strongly disagreeing with an unfavorable statement (e.g., "I would never live in New York City").

V. <u>Demographics</u>

The fifth type of question is usually placed at the end of the questionnaire and deals with the demographics of the respondents. These questions can be used to determine the profile of the respondents (who should be representative of customers, prospective customers, the population of an area, etc.). Demographics are also needed

to compare different groups on importance or performance ratings, for example, to determine whether men and women rate one's product the same.

The following information is necessary for classification purposes only:

1. Your age: __Under 25 __25 to 34 __35 to 44

                    __45 to 54   __55 to 64 __65 or older

2. Your education:
__less than high school graduate
__high school graduate
__some college
__college graduate
__some postgraduate college work
__graduate school degree

3. Total household Income (before taxes) for the past 12 months:
__Under $15,000
__$15,000- 34,999
__$35,000 - 59,999
__$60,000 - 99,999
__$100,000 or more

5. Your ethnicity: __Caucasian (white) __African-American (black) ___Hispanic ___Asian __Other (please specify):_____

6. Current marital status: ___Married/living together __single/never married ___widowed/divorced/separated

There are many other demographic questions that can be added, including gender, occupation, size of household, county or state of residence, etc.

In conclusion, most questionnaires consist of essentially these five types of questions. Once individuals understand how to use these question types, they should have little difficulty in constructing their own questionnaires.

As noted in previous chapters, one of the most important measures in marketing is customer/client satisfaction. Measuring customer satisfaction in a reliable and valid way is important. Attitude scales to measure customer satisfaction have been developed. Please see https://www.surveymonkey.com/mp/customer-satisfaction-survey-questions/ for some customer satisfaction questions that can be used.

Additional questions that might be used:

"On a scale of 0 to 10, how likely is it that you would recommend us to your friends or colleagues as a place to work?"

"On a scale of 0 to 10, how likely is it that you would recommend HP printers?"

Overall, on a scale of 0 to 10, where 0 means "extremely satisfied" and 10 means "extremely dissatisfied," how satisfied or dissatisfied are you with _____?

On a scale of 0 to 10, where 0 means "very low quality" and 10 means "very high quality," how would you rate the quality of our products?