**QUANTITATIVE RESEARCH TOOLS**

The most used quantitative research technique is the survey. In a quantitative survey you may use a short answer responses or dichotomous questions, multiple choice answers,

paragraph, check boxes, drop down, linear scale, multiple choice grid and more. As you can see there are various question formats that can be adapted to your research needs. Here are some examples of dichotomous, multiple choice, ranch ordering scaling, rating scale, staple scale

**The Dichotomous Question**

This type of questions are generally answered “yes/no”. For example: Have you traveled to Guatemala?

Yes

No

The Multiple Choice Questions

Where do you get the news from?

Television

Radio

Newspaper

Magazine

Word-of-mouth

Internet

Other: Please Specify

“For this type of question it is important to consider including an "other" category

because there may be other avenues by which the person first heard about your

site that you might have overlooked” (Question Pro Survey Software, 2017).

**Rank Order Scaling**

Rank order scaling questions allow a certain set of brands or products to be ranked based upon a specific attribute or characteristic. Perhaps we know that Toyota, Honda, Mazda, and Ford are most likely to be purchased. You may request that the options beranked based upon a particular attribute. Ties may or may not be allowed. If you allow ties, several options will have the same scores.

Example: Based upon what you have seen, heard, and experienced, please rank the following brands according to their reliability. Place a "1" next to the brand that is most reliable, a "2" next to the brand that is next most reliable, and so on. Remember, no two cars can have the same ranking.

Honda\_\_

Toyota\_\_

Mazda\_\_

Ford\_\_

**The Rating Scale**

A rating scale question requires a person to rate a product or brand along a well-defined, evenly spaced continuum. Rating scales are often used to measure the direction and intensity of attitudes. The following is an example of a comparative rating scale question: Which of the following categories best describes your last experience purchasing a product or service on our website? Would you say that your experience was:

Very pleasant

Somewhat pleasant

Neither pleasant nor unpleasant

Somewhat unpleasant

Very unpleasant

The Semantic Differential Scale

The semantic differential scale asks a person to rate a product, brand,

or company based upon a seven-point rating scale that has two bi-

polar adjectives at each end. The following is an example of a

semantic differential scale question.

Example:

(7) Very Attractive

(6)

(5)

(4)

(3)

(2)

(1) Very Unattractive

Notice that unlike the rating scale, the semantic differential scale

does not have a neutral or middle selection. A person must choose,

to a certain extent, one or the other adjective.

**The Staple Scale**

The staple scale asks a person to rate a brand, product, or service according to a certain characteristic on a scale from +5 to -5, indicating how well the characteristic describes the product or service. The following is an example of a staple scale question:

When thinking about Data Mining Technologies, Inc. (DMT), do you believe that the word "innovative" aptly describes or poorly describes the company? On a scale of +5 to -5 with +5 being "very good

description of DMT" and -5 being "poor description of DMT," how do you rank DMT according to the word "innovative"?

(+5) Describes very well

(+4)

(+3)

(+2)

(+1)

Innovative

(-1)

(-2)

(-3)

(-4)

(-5) Poorly Describes

**The Constant Sum Question**

A constant sum question permits collection of "ratio" data, meaning that the data is able to express the relative value or importance of the options (option A is twice as important as option B)

Example:

The following question asks you to divide 100 points between a set of options to show the value or importance you place on each option. Distribute the 100 points giving the more important reasons a greater number of points. The computer will prompt you if your total does not equal exactly 100 points.

When thinking about the reasons you purchased our TargetFind data mining software, please rate the following reasons according to their relative importance.

Seamless integration with other software \_\_\_\_\_\_\_\_\_\_

User friendliness of software \_\_\_\_\_\_\_\_\_\_

Ability to manipulate algorithms \_\_\_\_\_\_\_\_\_\_

Level of pre- and post-purchase service \_\_\_\_\_\_\_\_\_\_

Level of value for the price \_\_\_\_\_\_\_\_\_\_

Convenience of purchase/quick delivery \_\_\_\_\_\_\_\_\_\_

Total 100 points

This type of question is used when you are relatively sure of the reasons for purchase, or you want input on a limited number of reasons you feel are important. Questions must sum to 100 points and point totals are checked by javascript.

**The Open-Ended Question**

The open-ended question seeks to explore the qualitative, in-depth aspects of a particular topic or issue. It gives a person the chance to respond in detail. Although open-ended questions are important, they are time-consuming and should not be over-used. An example of an open-ended question might be:

(If the respondent indicates they did not find what they were looking for...)

What products of services were you looking for that were not found on our website?

If you want to add an "Other" answer to a multiple choice question, you would use branching instructions to come to an open ended question to find out what Other....

**The Demographic Question**

Demographic questions are an integral part of any questionnaire. They are used to identify characteristics such as age, gender,

income, race, geographic place of residence, number of children, and so forth. For example demographic questions will help you to classify the difference between product users and non-users.

Perhaps most of your customers come from the Northeast, are between the ages of 50 and 65, and have incomes between $50,000 and $75,000.

Demographic data helps you paint a more accurate picture of the group of persons you are trying to understand. And by better understanding the type of people who use or are likely to use your product, you can allocate promotional resources to reach these people, in a more cost effective manner. Psycho-graphic or life style questions are also included in the template files. These questions provide an in-depth psychological profile and look at activities, interests and opinions of respondents

(Question Pro Survey Software, 2017).

Questionnaire Method

Interview Method

1. Data is gathered indirectly.

1. Data is gathered directly.

2. No face to face contact between

two.

2. There is face to face contact between interviewer and interviewee.

3. Interviewer should have the general knowledge of the topic.

3. Skillful interviewer is needed.

4. Interviewee will hesitate to write it.

4. Some confidential information can also be obtained.

... Instruments are tools used in a study to collect data. Selecting research tools are dependent on what the study aims to find and how the tool fits the purpose of the data collection process (de Trigueros & Sandoval, 2017). A questionnaire, a focus group, and individual face-to-face interviews were the data sources for collecting data in this qualitative case study. ...