A survey related to skin care products

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Question 2

Part a

The background and the goal/topic of my survey

Suppose I am a data analyst in a company that sells skin care products and I would like to make a survey in order to investigate the people who bought this brand of skin care products so that we can get a feedback of whether the quality of our product is good or not. Besides, by making this survey, we can also know what aspects of our products should we improve.

The survey we conduct is interesting and important. Our survey can be classified as the customer satisfactory survey. By conducting this kind of survey, we can assess how satisfied our customers are with different aspects of our products. After collecting these questionnaires, we can perform data processing and analysis to get customer's feedback and suggestions.

How the survey will contribute to the overall goal

In this survey, we can set some questions such as the favorite feature or the overall quality of the product in order to learn more about our product. Besides, we can also set a question related to the disadvantages or the aspects we should improve of our product.

Part b

How I would implement the survey

Collecting data: We can put the questionnaire on the website where customers buy our products. If they visit that webpage or buy something, they can view it and fill in the form. We can also use the paper version of the questionnaire. If some customers come to our physical store to buy our products, we can ask them to fill out this questionnaire. Therefore, these are two ways we can collect the data.

Investigation method: There is one important question in our survey: Which skin care product did you buy with us? According to this question, we should conduct this survey by assessing the quality of different types skin care products. Therefore, we should use a method of random sample called Stratified Sampling. After collecting the observations (data), we should classify the frame population into various groups by a strata (different types of the skin care products). Then, we can randomly select samples from each group to represent it. The Stratified Sampling we use is more convenient for the next step of data processing and analysis. It can control the difference of different types of skin care products by grouping.

The target population, frame population and sample population

Target population: The people (customers) who visit the website where they can buy our products, the people (customers) who come to our physical store to buy our products and the people (customers) who buy the products online.

Frame population: The list of people (customers) who have already filled out and submitted the form.

Sampling population: After stratified sampling, we randomly select samples from each group. The sampling population is those people (customers) who have been selected from those groups.

The drawbacks in my procedure

a. When we collect data, we collect all the people who visited our website. However, some people who browsed on the web might fill out this form but did not actually purchase the product so that it can have an influence on the accuracy of the data and lead to response bias.

b. Some people may fill out the form casually so that some data might be inaccurate. Besides, some people who visit the website may skip answers or quit in the middle of of the survey.

c. Some people may just use our skin care products so that they do not know much about our products.

The strengths of my proposed sampling procedure

My investigation method of this survey is stratified sampling. This method can control the difference of the groups (different types of skin care products) so that it is more convenient for us to explore the feedback and suggestions for different kinds of products. Besides, after stratified sampling, we use simple random sample method to randomly select samples from each group to represent it. The major strengths of the simple random sample includes its simplicity and lack of bias.

Part c

Here is the link to my survey: https://forms.gle/gYZd8zkTmpzs4gux9

Part d

Analyzing three questions in my survey and the benefits and drawbacks of each one

a. Compared to our competitors, is our product quality better, worse or about the same?

The benefits of it: This customer satisfaction survey question is simple but can give us measurable results. It can show us how customers prefer our products and their quality and function evaluation compared with our competitors.

The drawbacks of it: This question is a choice question so that people can only evaluate the product by choosing better, worse or the same without providing their specific explanation. Therefore, it's a good idea to follow up this question with an additional text box so that customers can provide some further explanation.

b. How would you rate the value for money of our product?

The reason why I chose this question is that this is a popular customer satisfaction survey question. It asks the customer to consider the actual value they received from a product versus its cost.

The benefits of it: This question is quite helpful when assessing the pricing of our product and the feedback of it can help determine whether the customers think our offering is very expensive or not.

The drawbacks of it: This is an excellent question to ask after a customer has had some time to use the product so that she can make an accurate assessment of this product. However, in the reality, some people may answer this question after a short time using our product. Therefore, the response of them might be quite inaccurate. Another drawback is that we have known that different customers have different salaries. Some people are rich and some are poor so that rich people might think that the price is very reasonable, but the people who has lower income might think that the price is not quite reasonable or is just acceptable.

c. What do you think is the problem with our product and what can be improved?

The benefits of it: This question in our survey can help us collect some great feedback directly from the customer's perspective. It also gives those that desire the opportunity to share more details about a particular issue they experienced that we might not have known. These suggestions can be helpful so that our team can use them to identify areas of improvement that should be addressed.

The drawbacks of it: Some people might answer casually so that the response might be meaningless. Besides, the answer could be more meaningful and accurate after a customer spend some time using the product. If people just use it for a short time, the response of them might be perfunctory so that it can affect the data analysis of this survey.

The weaknesses, next steps, justification and expectations/hypotheses

Weaknesses: This survey is suitable for people who have bought and used the product for a period of time. If some people who have not purchased or just used it fill out this questionnaire, the data analysis of this survey might be inaccurate and we can not conclude a meaningful conclusion and some practical suggestions and amendments.

Next steps: After using stratified sampling and random sampling to collect the data, we will process and analyze the data so that we can get the precise evaluation of product including quality, price and so on. Therefore, we can fix our mistake, improve our product and launch new products that customers prefer.

Expectations: We expect to collect meaningful and accurate data so that we can conclude some meaningful conclusions and suggestions. Besides, we would like our sample size to be larger. We have all known that the larger the sample size, the more accurate our data analysis is. Therefore, we would also expect the sample size to become larger.

Part e

Reference:

- Caroline Forsey. The Utimate Guide to Google Forms. URL https://blog.hubspot.com/marketing/google-forms

- Hanna Johnson. 10 tips to improve your online surveys. URL https://www.surveymonkey.com/curiosity/10-online-survey-tips/

- Strengths and weaknesses of survey research. URL https://scientificinquiryinsocialwork.pressbooks.com/chapter/11-2-strengths-and-weaknesses-of-survey-research/

- Wu, Changbao, and Mary E. Thompson. "Basic Concepts in Survey Sampling." Sampling Theory and Practice. Springer, Cham, 2020. 3-15.