Problem Set 1 - Q2 - Would you try fizzy grape yogurt slush?

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Question 2

Part a

The goal of this survey is to figure out whether people in Toronto would like to try MachiMachi's new product, fizzy grape yogurt slush. MachiMachi sells innovative and artsy handmade beverages, it's originally from Taiwan. It went famous at the beginning of 2020. This survey could figure out the main customer groups and whether people would like to try the new product.

Part b

Toronto residents would be target population, frame population would be people live in Toronto condos with their names on Toronto condo management profile. Sample population would be selected households. We will be using two stage cluster sampling to give out surveys. The first stage is randomly select a condo in Toronto. The second stage would be randomly selecting some floors and giving out surveys to all residents live on those floors. Print out the survey and put it in mailboxes of these residents. After completing the survey and put them in boxed in front of any MachiMachi shop, participants could enter the lottery pool and have a chance to get \$100 gift card. Cluster sampling is cost-saving and efficient and selected residents could fairly represents others and give us an unbiased result and with surveys printed, all age groups could participate since some elders might not be familiar with online survey. Drawbacks are people who don't live in condos would be exclude from this, for example students living on campus and people live in houses. Besides, some people might not be interested in getting a gift card and won't response. This study would also subject to a voluntary bias, since people who like ordering beverages or are fans of MachiMachi are more likely to answer this survey. # Part c

Here is the link to my survey https://www.surveymonkey.com/r/FVMLN6Y

Part d

1. How often do you buy a drink? People who like buying beverages would be potential customers for MachiMachi. If they have the habit of getting drinks they will have a higher chance to taste the new product than those who don't usually drink beverages. We could study the correlation between getting drinks frequency and chances to try new drinks. Drawbacks are people who like drinks might not be fancy of fruit slush, for those who usually get coffee or tea and don't like fruit related drinks may not by potential customers. Also, consuming sweet drinks could be considered unhealthy and volunteers might undereport their frequency of drinking beverages.

2. How much would you like to pay for a drink? Price is an important factor when deciding whether to buy a product or not. MachiMachi's price is a little higher than other bubble tea brands, it ranges from \$5 to \$10. People who usually spend little on drinks might not spend \$8 on the new product in MachiMachi. A drawback would be people who don't buy drinks very often might not consider too much on the price.

3.Are you a fan of Jay Chou? Jay Chou is a famous singer in Southeast Asia, he posted MachiMachi drinks a lot on the Instagram since he is a shareholder of this shop. Lots of his fans bought drinks from MachiMachi because of him in order to support their icon. There might be a proportion of customers who purchase the new drink adore Jay. The drawback is the question might seem random for those who don't know Jay and never listened his songs.

Weakness of this survey: These questions are not specific enough to predict the sales of the new product and methods of collecting response is not efficient. Next step is to find out what would attract customer the most, such as the bottle, the taste or the appearance. This survey could only give a big picture of general potential customers.

Part e

Bibliography:

- 1. Wu, Changbao, and Mary E. Thompson. "Basic Concepts in Survey Sampling." Sampling Theory and Practice. Springer, Cham, 2020. 3-15.
- 2. Waclawski, Eugene. "How I use it: Survey monkey." Occupational Medicine 62.6 (2012): 477-477.