Jackie Cui, Fangzhou Guo, Ruoyang Li, Jane Zeng
Team A11
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Survey Design

1. **Survey Content**
   Overall Rationale: Following the assignment instructions, we designed a short survey with 13 questions in total. We collected the consumer opinion for their general beverage preferences, consumption habits, motivations, and opinions on our potential new product. The survey is a simple flow, starting with asking preferences and habits before introducing our product to avoid any potential biases. It ends with demographic questions, as the questions we want the more attention paid towards are listed first.

Thank you for taking the time to take our survey!
The purpose of this survey is to study consumer preferences of health-oriented beverages. This survey takes approximately 5 minutes to complete, and all responses will remain anonymous and confidential.

Q1
How often do you consume each of these beverages? Please select your frequency scale from never, once in a while, once a week, a few times a week, to daily for each beverage.

		Never	*Once in awhile*	*Once a week*	*Few times a week*	*Daily*	
Water	Never	O	O	O	O	O	Daily
Soda	Never	O	O	O	O	O	Daily
Juice	Never	O	O	O	O	O	Daily
Energy Drinks	Never	O	O	O	O	O	Daily
Tea	Never	O	O	O	O	O	Daily
Coffee	Never	O	O	O	O	O	Daily
Alcoholic Beverages	Never	O	O	O	O	O	Daily

Rationale: We wanted to start broad and gauge a general idea on beverage consumption based on the top categories of beverages. Using a semantic differential, this is an easy way to identify which beverage categories are consumed more than others.

Q2

Please distribute 10 points among these attributes when it comes to selecting healthy beverages.

Price : ______
Organic Ingredients : ______
Brand Name : ______
Packaging : ______
Nutritional Value (i.e. calorie content, sugar level) : ______
Total : _______

Rationale: We decided to give the user the freedom to choose which attributes matter to them using a constant sum attitude measure. Since it is recommended to keep the points allocated low to make it easier to analyze, we gave users 10 points for our question. However, we soon realized that giving only 10 points was difficult to allocate among 5 attributes and should have increased it to 20 for more varied responses.

Q3

Please rank the following drinks according to your personal preferences (1 being your most favorite to 10 being your least):

_____ Detox Juice
_____ Kombucha
_____ Cold Brew Tea
_____ Superfood Smoothie
_____ Electrolyte Water
_____ Coconut Water

Rationale: Giving the respondent the opportunity to rank the products against each other mirrors the purchase decision made at a grocery store. By having to choose between a small array of products, one must carefully think about which product they would actually end up leaving the store with. The ordinal scale allows us to see which ones are valued more than others.

Q4

How often do you consume your favorite drink in the previous question?

- Over 3 times a week
- 2-3 times a week
- Once a week
- Less than once a. week

Rationale: We wanted to gauge the validity of the listed health-oriented beverages from earlier to see if our respondents actually consumed any of them.

Q5
Please respond the extent to which you disagree or agree with each of the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I value having a healthy lifestyle.	o	o	o	o	o
A balanced nutrition is crucial to my diet.	o	o	o	o	o
I follow fitness-related content on social media.	o	o	o	o	o
I study healthy eating behaviors.	o	o	o	o	o
I put forth an effort to lose weight/maintain a healthy weight.	o	o	o	o	o
I do not check the calorie count before making a food decision.	o	o	o	o	o
I have self-control over the amount of food I eat.	o	o	o	o	o
I keep track of the things I eat.	o	o	o	o	o
I prefer consuming organic over non-organic products.	o	o	o	o	o
I actively avoid artificial ingredients.	o	o	o	o	o
I don't pay attention to where my food is sourced.	o	o	o	o	o
I am willing to pay a little more for organic products.	o	o	o	o	o

Rationale: The likert scale measures the sentiment of each statement (which is related to one of the defined market segments). There is a blend of positive and negative statements to ensure the respondents pay attention and have variety in their responses. The negative statements will be reverse-coded for later analysis.

The product below is the image of a potentially new product in the health-oriented beverage market.

Q6

The name of our new product is "Portland Juice", which is packed with all the necessary vitamins and minerals, organically-sourced from local Oregon farms, and made with no artificial ingredients.

Given the information and image above, how likely are you going to buy the new product?

	Not at all likely Extremely Likely 0 10 20 30 40 50 60 70 80 90 100
How likely is it that you would buy our new product?	

Rationale: The purchase intent scale allows the respondent freedom to gauge their exact interest in a product and go "between the lines." This would allow us to measure a more accurate sentiment score based on the results.

Q7
Given the information above, how much would you to pay for the new product?
- Less than $1
- $1 - $1.99
- $2 - $2.99
- $3 - $3.99
- $4 - $4.99
- $5 - $5.99
- More than $5

Rationale: When it comes to drinks, a dollar makes a significant difference in making a purchase decision. We decided to leave the willingness-to-pay (WTP) scale at dollar intervals to make it as minute as possible while making it an easy choice for our respondents.

Rationale: Below are all of our demographic questions. We left this towards the end in hopes of retention because this is known data of our respondents and would not require much contemplation since they are reaching the end of our survey. Starting the survey immediately off with beverage preferences while their mind is active and engaged hopefully will have made for more honest answers.

As for demographics, we asked for age, gender, race, education, and income. This is just to get an idea of what our market could look like and how our diverse our sampling is.

Q8
What is your age?

____

Rationale: We used a ratio scale because it won't require the respondent to think too hard about an answer and it will normally be given in a whole number as well.

Q9
What is your gender?
- Male
- Female
- Other

Rationale: This is a nominal scale that will easily classify our respondents and give a better idea of our sample distribution. The same may be said for the next two questions as well.

Q10
Which race/ethnicity best describes you?
- American Indian or Alaskan Native
- Asian/Pacific Islander
- Black or African American
- Hispanic
- White/Caucasian
- Multiple ethnicity/Other (please specify) ____________________

Q11
What is the highest level of school you have completed or the highest degree you have received?
- Less than high school degree
- High school degree or equivalent (e.g., GED)
- Some college but no degree
- Associate degree
- Bachelor degree
- Graduate degree

Q12
What is your approximate average household income?
- $0 - $24,999
- $25,000 - $49,999
- $50,000 - $74,999
- $75,000 - $99,999
- $100,000 - $124,999
- $125,000 - $149,999
- $150,000 - $174,999
- $175,000 - $199,999
- $200,000 and up

Q13
Please include any additional comments or feedback to our product and survey here. Thank you for your participation.

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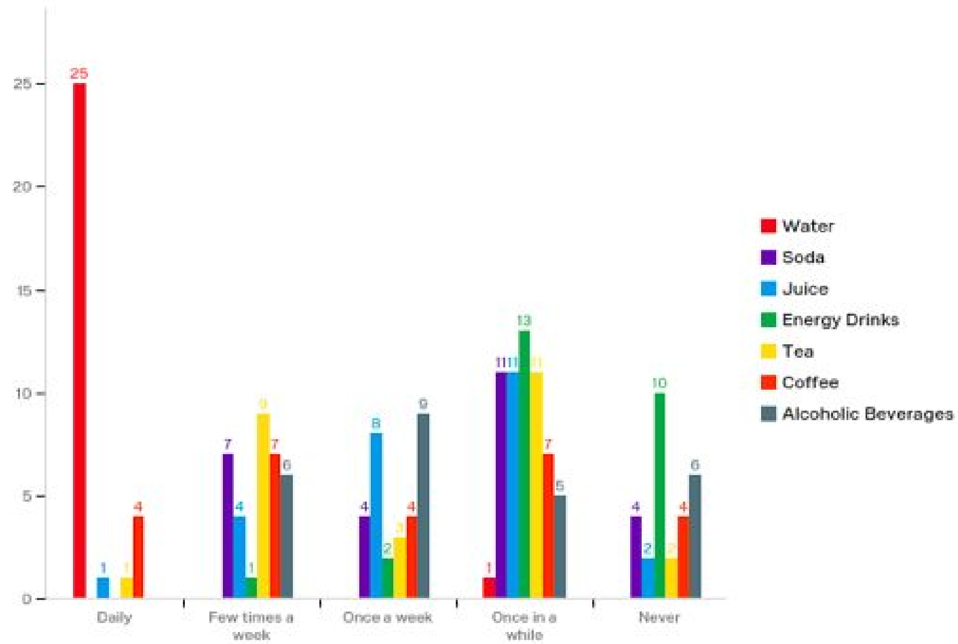
2. Survey Results

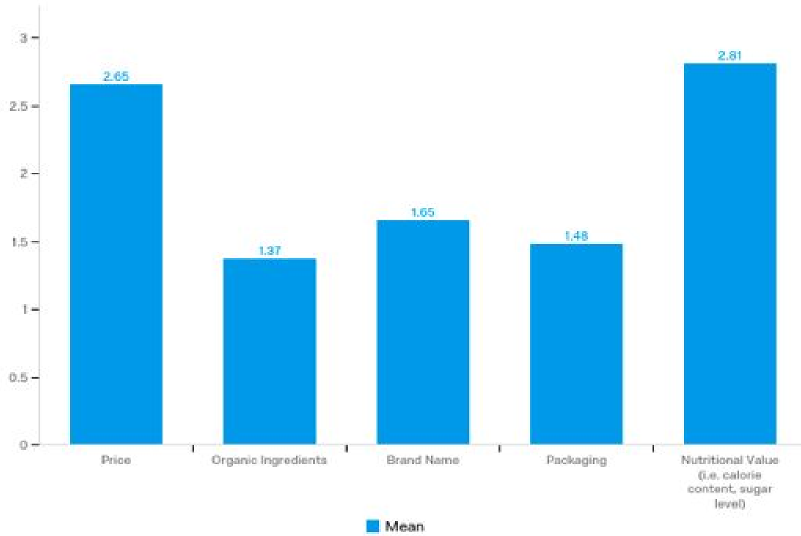
Q1 - How often do you consume each of these beverages?



It's no question that water is the most consumed beverage for users, but we were surprised to see how uncommon juice was consumed, which would be the closest category our product would fall into.

Question	Daily	Few times a week	Once a week	Once in a while	Never	Total
Water	96.15%	0.00%	0.00%	3.85%	0.00%	26
Soda	0.00%	26.92%	15.38%	42.31%	15.38%	26
Juice	3.85%	15.38%	30.77%	42.31%	7.69%	26
Energy Drinks	0.00%	3.85%	7.69%	50.00%	38.46%	26
Tea	3.85%	34.62%	11.54%	42.31%	7.69%	26
Coffee	15.38%	26.92%	15.38%	26.92%	15.38%	26
Alcoholic Beverage	0.00%	23.08%	34.62%	19.23%	23.08%	26

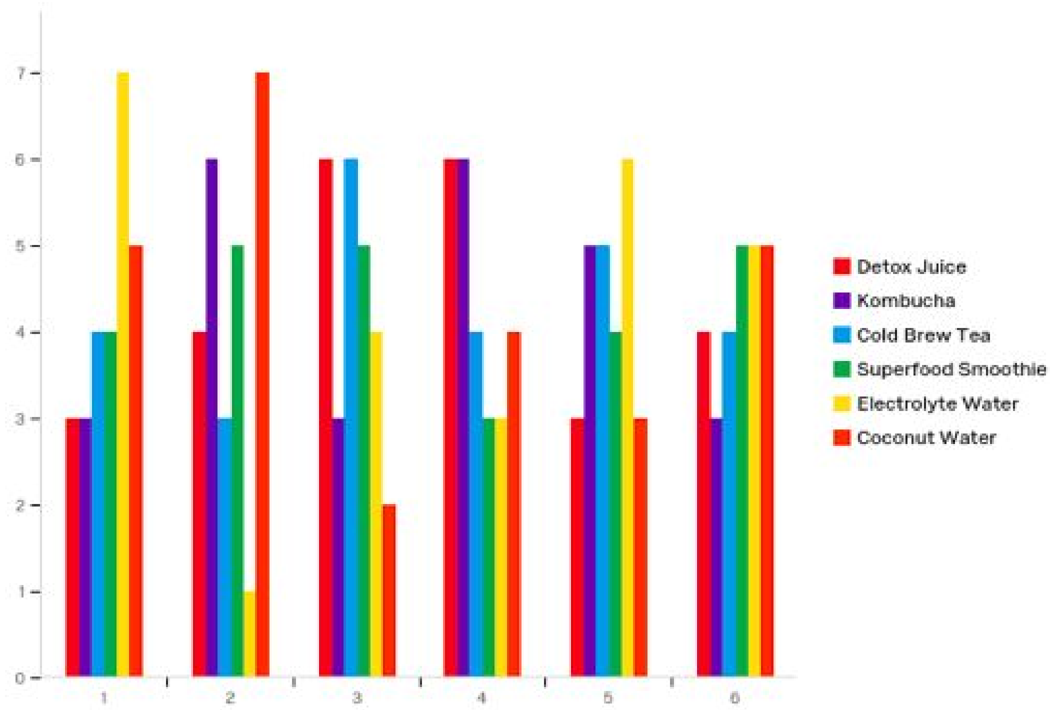
Q2 - Please distribute 10 points among these attributes when it comes to selecting healthy beverages.



It's clear that nutritional value and price are the most important attributes to consumers when it comes to beverages.

Field	Minimum	Maximum	Mean	Std Deviation	Variance
Price	1.00	7.00	2.65	1.54	2.38
Organic Ingredients	0.00	3.00	1.37	1.07	1.15
Brand Name	0.00	4.00	1.65	0.89	0.78
Packaging	0.00	3.00	1.48	0.84	0.70
Nutritional Value (i.e. calorie content, sugar level)	0.00	7.00	2.81	1.62	2.62

Q3 - Please rank the following drinks according to your personal preferences (1 being your most favorite to 10 being your least):



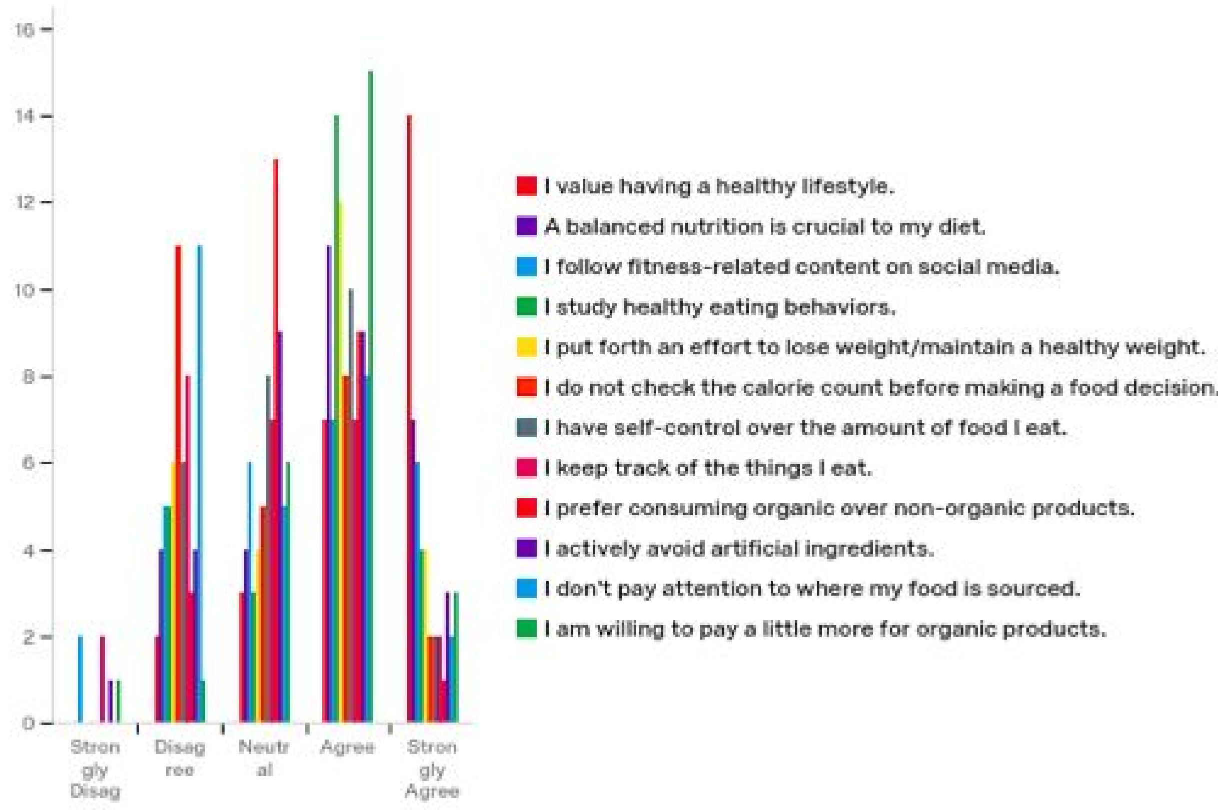
Looking at the mean ranking for all of the drinks, it appears that there isn't a clear favorite among our respondents. Electrolyte water and cold brew tea tied for having the highest mean but not by much.

Field	Minimum	Maximum	Mean	Std Deviation	Variance
Detox Juice	1.00	6.00	3.54	1.55	2.40
Kombucha	1.00	6.00	3.50	1.58	2.48
Cold Brew Tea	1.00	6.00	3.58	1.64	2.71
Superfood Smoothie	1.00	6.00	3.50	1.74	3.02
Electrolyte Water	1.00	6.00	3.58	1.88	3.55
Coconut Water	1.00	6.00	3.31	1.81	3.29

Q4 - How often do you consume your favorite drink in the previous question?

There does not appear to be a large variance in consumption habits, though it is worth noting that our respondents tend to consume one of the listed health-oriented beverages at least once a week.

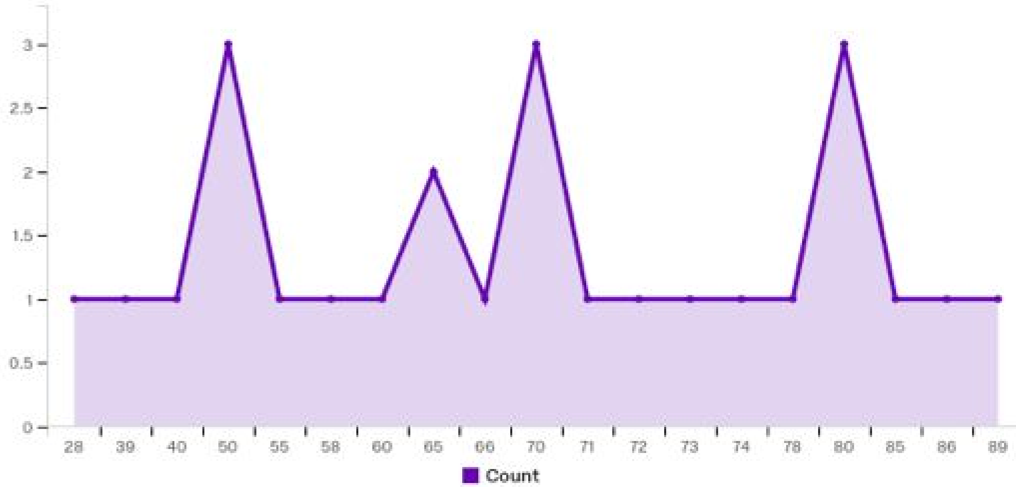
Q5 - Please respond to the extent to which you disagree or agree with each of the following statements.



Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I value having a healthy lifestyle.	0.00%	7.69%	11.54%	26.92%	53.85%
A balanced nutrition is crucial to my diet.	0.00%	15.38%	15.38%	42.31%	26.92%
I follow fitness-related content on social media.	7.69%	19.23%	23.08%	26.92%	23.08%
I study healthy eating behaviors.	0.00%	19.23%	11.54%	53.85%	15.38%
I put forth an effort to lose weight/maintain a healthy weight.	0.00%	23.08%	15.38%	46.15%	15.38%
I do not check the calorie count before making a food decision.	0.00%	42.31%	19.23%	30.77%	7.69%
I have self-control over the amount of food I eat.	0.00%	23.08%	30.77%	38.46%	7.69%
I keep track of the things I eat.	7.69%	30.77%	26.92%	26.92%	7.69%
I prefer consuming organic over non-organic products.	0.00%	11.54%	50.00%	34.62%	3.85%
I actively avoid artificial ingredients.	3.85%	15.38%	34.62%	34.62%	11.54%
I don't pay attention to where my food is sourced.	0.00%	42.31%	19.23%	30.77%	7.69%
I am willing to pay a little more for organic products.	3.85%	3.85%	23.08%	57.69%	11.54%

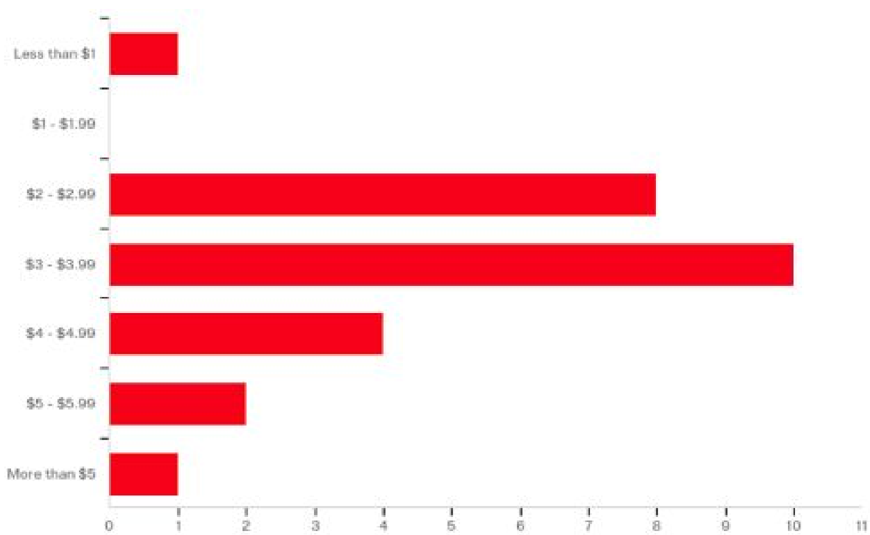
Some interesting insights can be generated from the questionnaire. In terms of Health Nuts, it appears most people have the desire to be healthier, and people are willing to make efforts to becoming healthier, such as exercising and bodyweight control however, it seems most efforts are limited at a rather low level and short term, since people are not so willing to track the food they eat in a rather long term.

Q6 - The name of our new product is "Portland Juice", which is packed with all the necessary vitamins and minerals, organically-sourced from local Oregon farms, and made with no artificial ingredients. Given the information and image above, how likely are you going to buy the new product?



The plot above shows how likely our respondents are going to buy our new product. According to the graph, 23 out of 26 respondents are more than 50% likely to purchase our product, and 15 out of 26 respondents are 70% likely to purchase the new product. It suggests that the concept and package of our new product are attractive to consumers in certain ways. We'd like to have small-group discussion or one-on-one interview with respondents who are at the ends of the spectrum to find out where we did a good job and where we need to improve.

Q7 - Given the information above, how much would you like to pay for the new product?

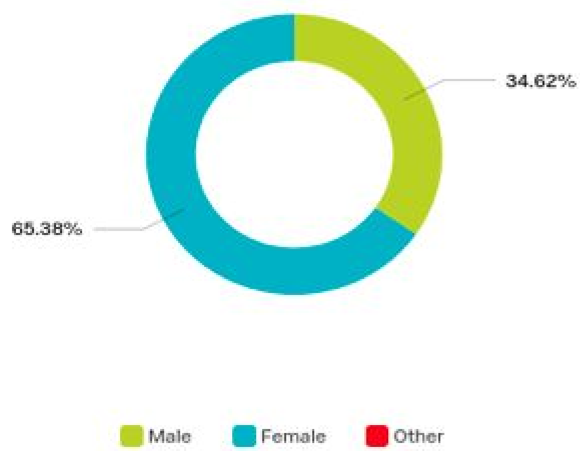


According to the graph above, most respondents would like to pay $2 - $3.99 for our new product, which is close to the average price of organic beverages on the market. But, the survey result is not *very valid while most respondents are students with unstable income. People with full-time jobs might be willing to pay higher price. Sampling is very important in market research.*

Q8 - What is your age?

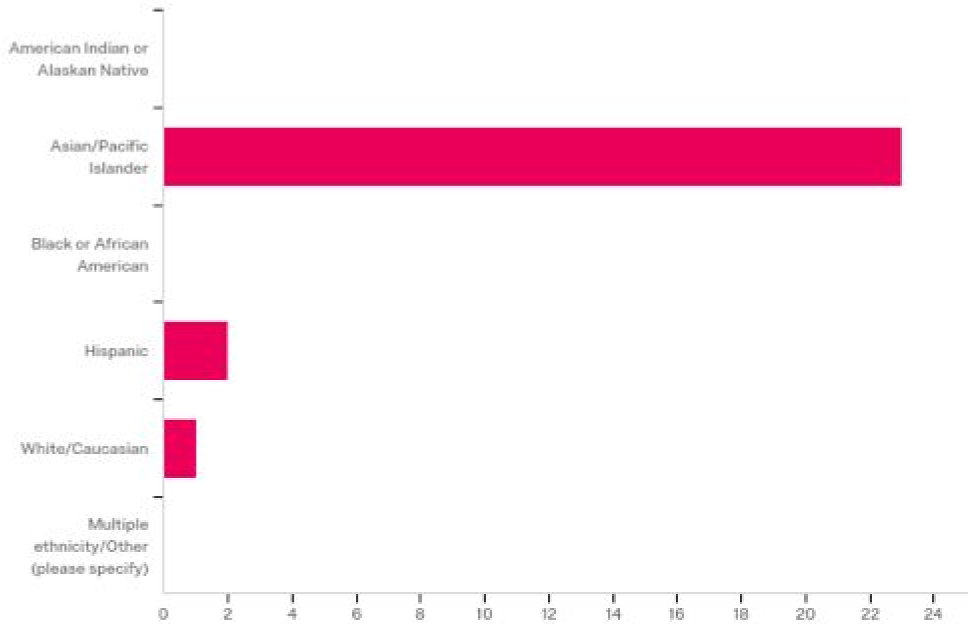
The word cloud above shows most respondents are between 22 and 25. We guess people fall into this range are students, fresh graduates, and workplace freshmen. Next time, we will ask a question about profession in survey, which can better help us to understand consumers.

Q9 - What is your gender?



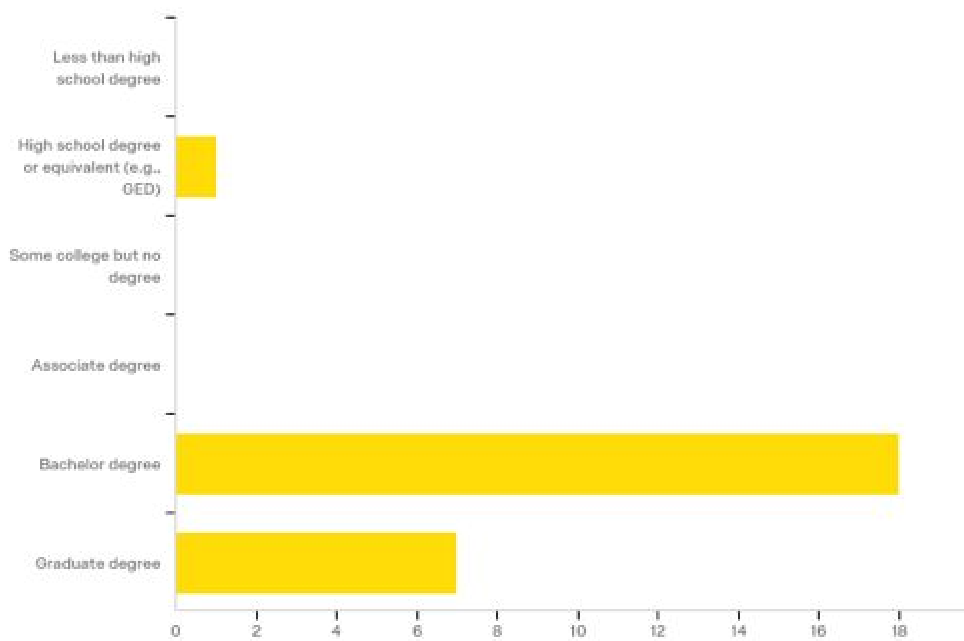
About 65% respondents are female, which might be due to gender imbalance in our team. 3 out of 4 members in our team are female.

Q10 - Which race/ethnicity best describes you?



Nearly all respondents are Asian/Pacific Islander, probably because all members in our team are Asian. As we know, drinking habit could be very different among different races. So, it's important to know which ethnicity group you are targeting. If there is no specific targeted race, make sure strict stratified sampling is implemented.

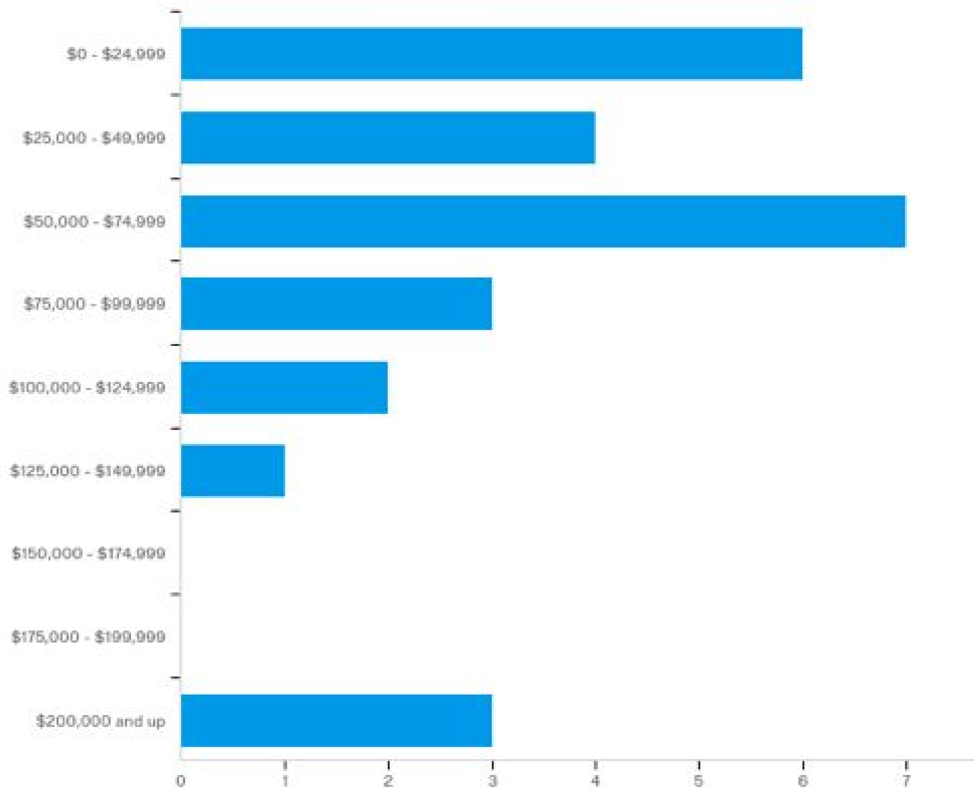
Q11 - What is the highest level of school you have completed or the highest degree you have received?



70% respondents

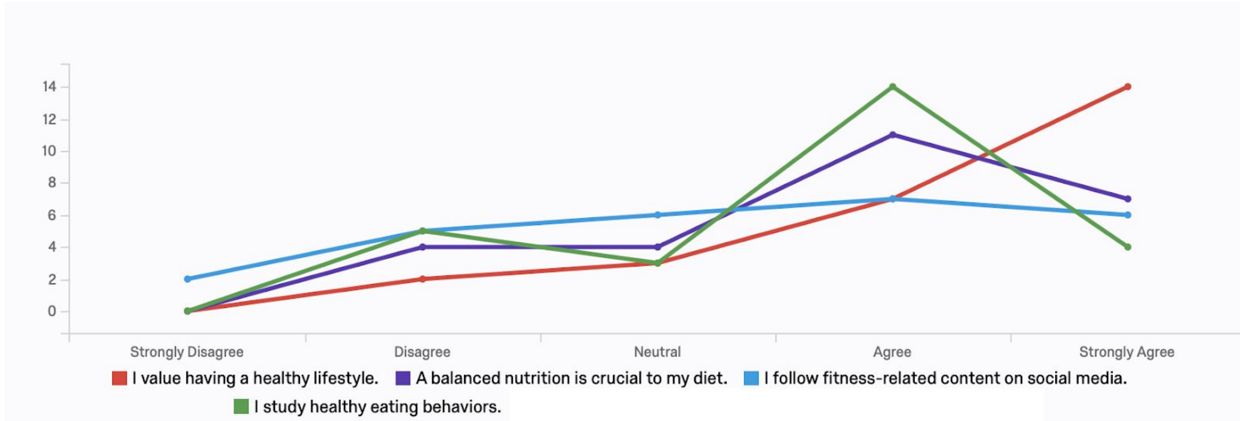
have a Bachelor Degree and 27% respondents have a graduate degree. This might explain why most respondents in this survey are willing to buy the new product with high nutrition and no artificial ingredients. Generally speaking, people with higher educational background pay more attention to healthy diet and would like to spend more money on that to keep fit.

Q12 - What is your approximate average household income?

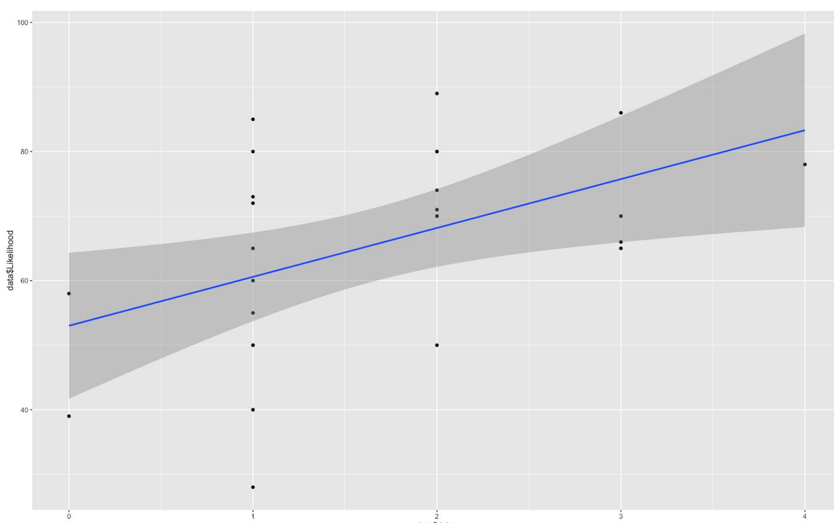


Household income is usually a good indicator of how much a consumer would like to pay and how likely they are to switch to a new product. In this survey, most respondents have household income below $100,000.

3. Additional Visuals



This is an additional visualization we created in Qualtrics based on 4 sub-questions in Question 5 that measures the respondent's traits towards "Health Nuts". The graph shows that the majority of the respondents value a healthy lifestyle and conscientiously pay attention to it in daily life. However, compared to the willingness of having a healthy lifestyle, it seems respondents are not putting proportional effort to live a healthy life, which is quite obvious when we see the red line is located much higher than other lines at the right end of the picture.



We made the second visualization in R to reflect the relationship between the likelihood of purchasing the new product and their drinking habits. Since our new product is a healthy juice, we focused on the responses of juice. We assign the highest utility score of 4 to customers who drink juice daily and lowest of 0 to whom never drink juice. The trend reflects that generally customers with higher utility score, who drink juice more frequently will be more likely to purchase our new product. However, there was only 1 respondent out of 26 in our sample who drinks juice daily. Though the majority of customers responded only drink juice once in a while, they revealed a wide range of purchasing likelihood and several customers indicated even higher likelihood than daily juice drinker.

4. Now What?

Based on our survey, there is a general positive sentiment towards our product. Looking at the sentiment distribution of our segmentation questions, there is a lean towards wanting a healthy lifestyle and achieving a goal weight but a neutrality when it comes to organic products. Perhaps it would be more ideal to position the product more towards a health-achieving beverage rather than our previous branding strategy. The willingness to pay mean price is within the range of current organic drink products, so it is encouraging to pursue this product. However, because our survey respondents do not vary enough in demographic background, more research needs to be done to better gauge the market.

5. Evaluation

We will better consider the flow of the survey if we can start over. For customers with different drinking habits, we should tailor the questions with different flow. For example who never drinks juice or soft beverage, should be asked questions like if they would like to try totally new products for their habits. And for people drink soda as major beverage, we can ask if they would like to add or substitute their current drink structure with a healthy beverage.

Besides, we certainly need to do better in sampling by strictly using stratified sampling approach. Given the demographic information in final results, we learned most respondents are alike members in our team. This is not a good representative of the entire population, which make survey results biased.