

# PROBABILITY AND STATISTICAL DATA ANALYSIS SECI2143 SECTION 01

# **PROJECT 1**

# LECTURER: DR SHARIN HAZLIN BINTI HUSPI

NO	NAME	MATRIC NO
1	HUDA NAJIHAH BINTI AHMAD ASRI	A20EC0045
2	INDIRA A/P THANGARAJ	A20EC0049
3	MUHAMMAD AIMAN BIN ABDUL RAZAK	A20EC0082
4	NUR HAZNIRAH BINTI HAZMAN	A20EC0114

# Contents

Introduction	1
Data Collection	1
Data Collection Method	1
Sample Selection	1
Parameters and variables	2
Limitations of the study	2
Data Analysis	3
Categorical Data	3
Gender	3
Medical history	3
Preferred drink	4
Frequency of drinking	4
Rating for the price of preferred drinks	6
Favorite preferred drink brands	8
Appealing factor of milk tea / smoothie	10
Reason for choosing the drink	12
Quantitative Data	14
Age	14
Monthly income	14
Money spend on buying the chosen drink every month	14
Levels of sugar in chosen drink	16
Distance of any available drinks vendor from respondents' house	19
Comparison	21
Comparison of monthly income vs how often the respondents drink smoothie/milk	tea 21
Comparison of respondents' medical history and their choice of drinks	21
Comparison of price rating of drinks and the brand(s) chosen	22
The respondents' reasons on their choice of drinks	22
Comparison of price rating of drinks and customer's choice of drinks (milk tea or smoothies)	22
Comparison of price rating of drinks and customer monthly spending on the drink.	
Conclusion	
Annendiy	23

#### Introduction

In recent times, consumption of beverages such as milk tea, smoothie, ice blended drink, slush and fruit juice among Malaysian have increased drastically. Not only that, opening of new beverage stalls and outlets also have increased rapidly in the last couple of years. Malaysians are becoming very obsessed or the right word to use is addicted to these beverages. This is because beverages are one of the affordable sweet treats which satisfy our sweet cravings.

Among all the popular beverages, milk tea and smoothie are one of the people's favorite. Milk tea refers to any tea drink with milk added. Outlets such as Tealive, Daboba, The Alley, Xi Fu Tang and Tiger Sugar are some popular stalls that sell variety of milk tea all around Malaysia. Smoothie refers to drink made by pureed vegetables or fruits. Boost Juice Bars, Juice Works, MBG and Juiceee are some famous outlets that sell fresh smoothies.

Talking about both of this popular beverages, a question rises in our mind. Which would be the favorite drink among milk tea and smoothie? The idea for conducting this project is to do a survey about milk tea and smoothie. Which one would be the favorite drink and what are the reasons for that choice? What are the elements that influence people to choose that specific beverage?

Hence, we created a questionnaire to conduct this survey and spread among UTM students, our friends, and families. This report is about the findings and results of our survey about the milk tea and smoothie.

#### **Data Collection**

#### **Data Collection Method**

In order to gather information for this report, a virtual survey was distributed to random people through social media platforms. The surveys were divided into 3 parts. Section 1 was used to collect the basic information of those who responded to the survey. There are five questions including gender, age, medical background, monthly income, and a preference for people's favourite drink.

Sections 2 and 3 can be done based on the respondents' favourite beverage. If respondents prefer milk tea, they will only answer section 2 of the survey. However, if they choose smoothie, they will only answer section 3 of the survey. Sections 2 and 3 are for the specific data of each preferred beverage. It is to give an insight into all the perspectives regarding our analysis which will have the statistically significant results required for reliable analysis.

#### **Sample Selection**

We shared the questionnaire to group chatroom in messaging applications such as Whatsapp and Telegram, and to social media such as Instagram. Through this way, we could have various responds from bigger audience. Thus, we managed to collect 88 responses for the questionnaire with respondents varied from students from UTM and other universities, and public.

#### **Parameters and variables**

Variable	Data type	Measurement level	Parameter
Gender	Categorical	Nominal	Mode
Medical history	Categorical	Nominal	Mode
Preferred drink	Categorical	Ordinal	Mode
Frequency of drinking milk tea / smoothie	Categorical	Ordinal	Mode
Rating for the price of milk tea / smoothie	Categorical	Ordinal	Mode
Favorite milk tea / smoothie brands	Categorical	Nominal	Mode
Appealing factor of milk tea / smoothie	Categorical	Nominal	Mode
Reason for choosing the drink	Categorical	Nominal	Mode
Age	Quantitative	Ratio	Mean
Monthly income	Quantitative	Ratio	Mean
Money spend on buying the chosen drink every month	Quantitative	Ratio	Mean
Levels of sugar in chosen drink	Quantitative	Interval	Mean
Distance of any available milk tea / smoothie vendor from respondents' house	Quantitative	Interval	Mean

# **Limitations of the study**

There are large market of milk tea and smoothie in Malaysia which means there are so many choice of brands available. Unfortunately, we could only provide five brands to choose from for the drinks and limited reasons available. So, the questionnaire might be not reflecting what the respondents truly feel about the drinks.

# **Data Analysis**

#### **Categorical Data**

#### Gender

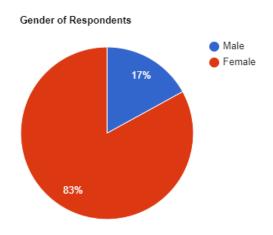


Figure 1 Gender of Respondents

The pie chart above (Figure 1) illustrates that there are 15 male respondents (17%) and 73 female respondents (83%). Female respondents made up the majority of those who replied to the survey with male respondents placing second.

#### Medical history

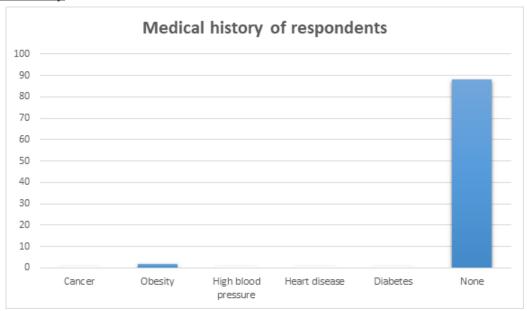


Figure 2 Medical history of respondents

The bar chart above (Figure 2) indicates that a large number of respondents (87 respondents) do not have a bad medical history and only 1 respondent has obesity issues. This shows that most of our respondents are in good health.

#### Preferred drink

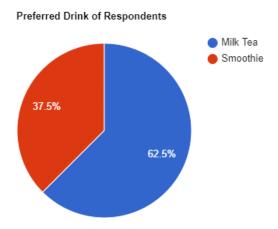


Figure 3 Preferred drink of respondents

The pie chart above (Figure 3) shows that there are 33 respondents (37.5%) choose smoothies and 55 respondents (62.5%) choose milk tea. As a result, the survey primary goal would be to determine the respondent's favorite beverage.

## Frequency of drinking

#### • Milk Tea

HOW OFTEN DOES THE RESPONDENT DRINK MILK TEA	FREQUENCY
EVERYDAY	0
WEEKLY	9
MONTHLY	29
ANNUALLY	17
	55

Figure 4 Frequency of how often the respondent drink milk tea

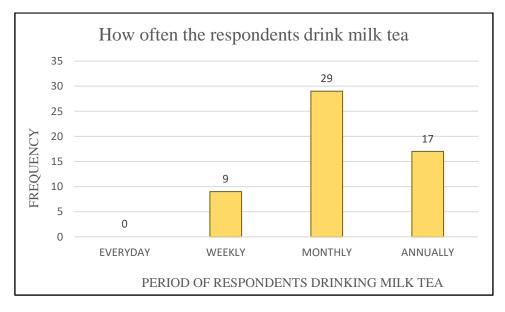


Figure 5 Bar chart on the frequency of how often the respondents drink milk tea

The bar chart shows how frequent the respondents drink milk tea. Based on the 55 respondents who chose milk tea as their preferred drink, 9 (16%) of the respondents consumed milk tea weekly, 17 (31%) of them consumed milk tea annually, with the highest percentage of milk tea consumption by the respondents being 53% on a monthly basis, which is around 29 respondents out of the chosen 55. There were no respondents consuming milk tea every day. Based on the given bar chart, we can see that the majority of the respondents who preferred milk tea consumed it monthly (53%), while every day consumption was shown to be the least favourable answer by the respondents (0%).

#### • Smoothie

How often does the respondent drinks Smoothie	Frequency	Relative Frequency	Cumulative Frequency	Relative Cumulative Frequency	Percentage
Annually	8	0.24	8	0.24	24.24%
Monthly	21	0.64	29	0.88	63.64%
Weekly	4	0.12	33	1.00	12.12%
Everyday	0	0.00	33	1.00	0.00%
TOTAL	33				100%

Figure 6 Frequency distribution table on how often the respondent drinks smoothie

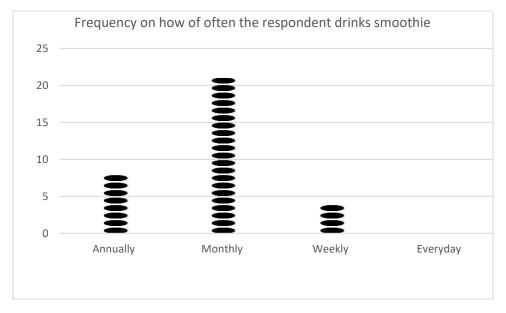


Figure 7 Dot plot of frequency on how often the respondent drinks Smoothie

Figure 7 shows dot plot for frequency on how often the respondents drink smoothie. The highest frequency is for monthly which means once a month and 21 respondents chose this option. Next, 8 respondents stated that they drink smoothie annually which means once in a year and 4 respondents have stated that they drink smoothie weekly. There is no respondent who drinks smoothie every day. From this result we can conclude that most of the respondent drink smoothie monthly.

## Rating for the price of preferred drinks

#### • Milk Tea

RESPONDENTS' RATINGS TOWARDS THE PRICE OF MILK TEA	FREQUENCY
СНЕАР	0
JUST RIGHT	46
EXPENSIVE	9
	55

Figure 8 Frequency of respondents' ratings towards the price of milk tea

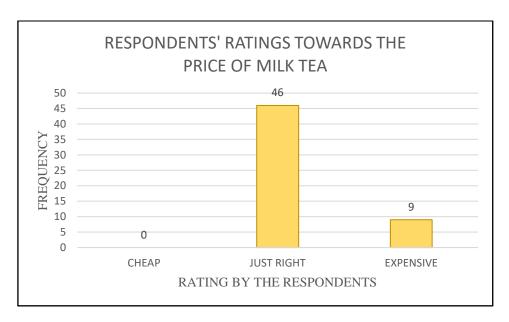


Figure 9 Bar chart on the frequency of the rating by the respondents towards the price of milk tea

Based on the bar chart above regarding the respondents' ratings towards the price of milk tea, around 46 respondents (84%) responded with "JUST RIGHT", 9 (16%) responded with "EXPENSIVE", while 0 responded with "CHEAP". From the data collected, we can gather that most respondents agree with the price of today's milk tea.

#### • Smoothie

Ratings	Frequency	Relative Frequency	Cumulative Frequency	Cumulative Relative Frequency	Percentage
Cheap	0	0.00	0	0.00	0%
Just Right	30	0.91	30	0.91	91%
Expensive	3	0.09	33	1.00	9%
Total	33	1.00			100%

Figure 10 Frequency distribution table of respondents' ratings towards smoothie's price

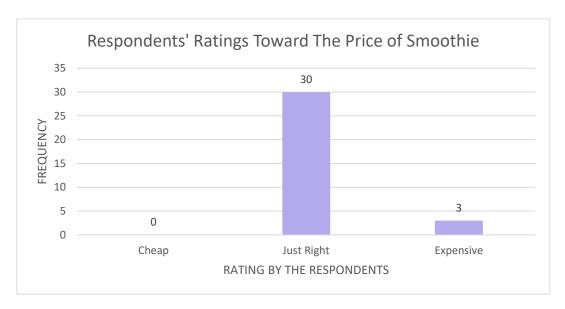


Figure 11 Bar chart of the frequency of the respondents' ratings towards the price of smoothie

The bar chart above shows the respondents' ratings towards the price of smoothie. Out of the 33 respondents, 30 agreed that the price of smoothie is "JUST RIGHT" (91%). The remaining 3 respondents answered that the price is "EXPENSIVE" (9%) and 0 responded with "CHEAP" (0%). As the mode is "JUST RIGHT", we can conclude that the price of smoothie satisfies the consumer.

#### Favorite preferred drink brands

#### • Milk Tea

Brands	Frequency	Relative Frequency	Cumulative Frequency	Cumulative Relative Frequency	Percentage
Tealive	49	0.68	49	0.68	68.06%
Tiger Sugar	4	0.06	53	0.74	5.56%
The Alley	10	0.14	63	0.88	13.89%
Gong Cha	8	0.11	71	0.98	11.11%
Koi The					
Malaysia	1	0.01	72	0.99	1.39%
TOTAL	72				

Figure 12 Frequency distribution table of the milk tea brands

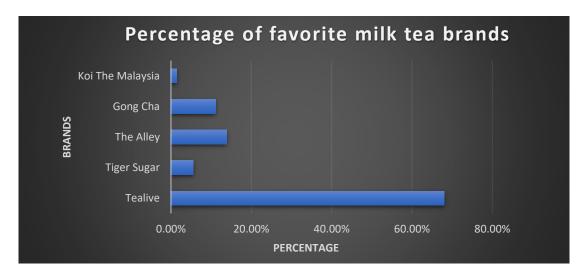


Figure 13 Bar chart on percentage of favorite milk tea brands

Figure 13 shows the bar chart on percentage of favorite milk tea brands of the respondents. There are total of 55 respondents choose milk tea as their go-to drink and 13 of them have choose more than one milk tea brand as their favorite milk tea brand (example: Tealive, Gong Cha/ Tealive, The Alley/ Tealive, Gong Cha, Koi The Malaysia). Based on the bar chart, the most favorite milk tea for most of the respondents is Tealive (68.06%). The second favorite milk tea brand is The Alley and 13.89% of respondents have chosen this as their favorite milk tea brand. Next followed by Gong Cha and 11.11% mention this as their favorite milk tea brand. Tiger Sugar is the next favorite milk tea brand among respondents with the percentage of 5.56%. The least favorite milk tea brand is Koi The Malaysia and 1.39% of respondents have chosen this as their favorite milk tea brand.

#### Smoothie

Brands	Frequency	Relative Frequency	Cumulative Frequency	Cumulative Relative Frequency	Percentage
Boost Juice Bars	30	0.63	30.00	0.63	63%
Juiceee	5	0.10	35.00	0.73	10%
Juice Works	7	0.15	42.00	0.88	15%
La Juiceria	1	0.02	43.00	0.90	2%
MBG Fruit Shop	5	0.10	48.00	1.00	10%
Total	48	1			100%

Figure 14 Frequency distribution table of smoothie's brands

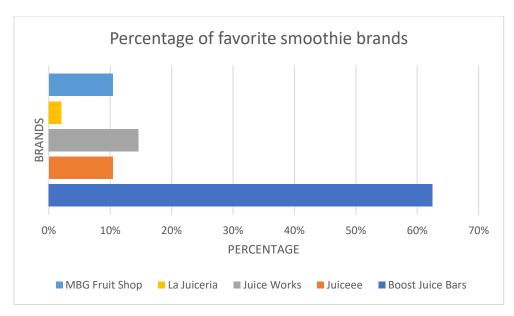


Figure 15 Bar chart on percentage of favorite smoothie brands

Figure 15 shows the bar chart on percentage of favorite smoothie brands voted by the respondents. Total of 33 respondents have answered this question in the questionnaire. Out of the 33 respondents, 12 have chosen more than one brands as their favorite brands with combinations such as Boost Juice Bars, Juice Works / Boost Juice Bars, MBG Fruit Shop / Boost Juice Bars, Juiceee, Juice Works. Based on the frequency distribution table and the bar chart, the mode for the data is Boost Juice Bars (63%). Following that is Juice Works with 15%. There are two brands which was by 10% respondents respectively – Juiceee and MBG Fruit Shop. The least favorite smoothie brand is La Juiceria with only 2%.

#### Appealing factor of milk tea / smoothie

#### • Milk Tea

Reasons why milk tea is the most appealing	Frequency	Relative Frequency	Cumulative Frequency	Relative Cumulative Frequency	Percentage
Different compared to normal tea	14	0.25	14	0.25	25.45%
Many different flavors and type	25	0.45	39	0.70	45.45%
The popularity of milk tea	7	0.13	46	0.83	12.73%
The toppings	9	0.16	55	1.00	16.36%
TOTAL	55				

Figure 16 Frequency distribution on reasons why milk tea is most appealing

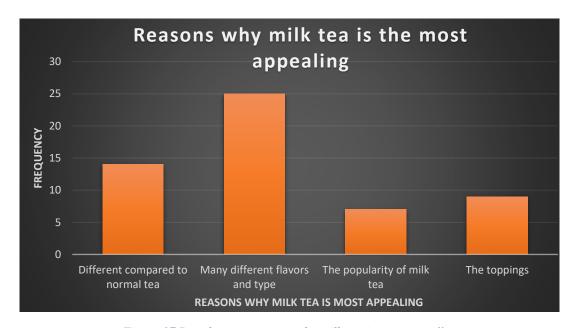


Figure 17 Bar chart on reasons why milk tea is most appealing

Figure 17 depicts the reason why the respondents found that milk tea is the most appealing drink to them. Among the 55 respondents, 25 of them find milk tea more appealing because they have many different flavors and types to choose from. Next, 14 respondents find milk tea more appealing because they are different in taste compared to normal tea. In addition, 9 respondents find milk tea more appealing because of the toppings and 7 respondents think that the popularity of milk tea is what makes it more appealing. From this result, we can conclude that most of the respondents prefers variation in their beverages.

#### • Smoothie

What do you find most appealing about Smoothie?	Frequency	Relative Frequency	Cumulative Frequency	Cumulative Relative Frequency	Percentage
Great taste	18	0.55	18	0.55	55%
The flavors	12	0.36	30	0.91	36%
Meal replacement	3	0.09	33	1.00	9%
Convenience	0	0.00	33	1.00	0%
Total	33	1.00			100%

Figure 18 Frequency distribution table on what do the respondents find most appealing about smoothie

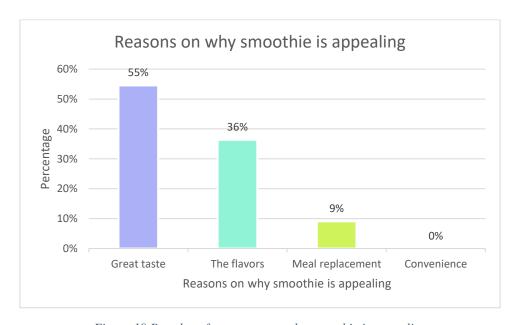


Figure 19 Bar chart for reasons on why smoothie is appealing

Figure 19 is the bar chart that shows the answers for what 33 respondents find most appealing about smoothie. 55% respondents agreed that the great taste of smoothie appealed them. Following that, 36% respondents responded with the flavors offered, and 9% respondents agreed that smoothie is appealing at the aspects that it could be a meal replacement. None chose convenience (0%). Hence, the mode of the answers on smoothie's appeal is the great taste.

#### Reason for choosing the drink

#### • Milk Tea

Reason for choosing milk tea over smoothie	Frequency	Relative frequency	Cumulative frequency	Relative cumulative frequency	Percentage
More variety	13	0.24	13	0.24	23.64%
Richer in taste compared to	13	0.24	13	0.24	23.0470
smoothie	33	0.60	46	0.84	60.00%
Sweeter compared to smoothie	3	0.05	49	0.89	5.45%
The visual is much more appealing	6	0.11	55	1.00	10.91%
Total	55				100%

Figure 20 Frequency distribution table on reasons for choosing milk tea over smoothie

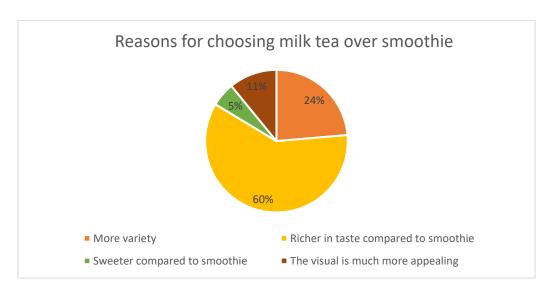


Figure 21 Pie chart on reasons for choosing milk tea over smoothie

Figure 21 shows pie chart on reasons why respondents choose milk tea over smoothie. The reason that is chosen by highest number of respondents is milk tea is richer in taste compared to smoothie (60%). 24% of respondents think that there are more variety is milk tea and that is why they choose milk tea over smoothie. Next, 11% of respondents think that the visual of milk tea is more appealing compared to smoothie and that is the reason that they are leaning towards milk tea over smoothie. Lastly, 5% of respondents find that milk tea is sweeter than smoothie and that is what makes them like milk tea more than smoothie.

#### • Smoothie

Reasons for choosing smoothie over milk tea	Frequency	Relative Frequency	Cumulative Frequency	Cumulative Relative Frequency	Percentage
I'm on diet	4	0.12	4	0.12	12%
Better alternative than milk					
tea	11	0.33	15	0.45	33%
No additive added	8	0.24	23	0.70	24%
Rich in fiber	10	0.30	33	1.00	30%
Total	33	1.00			100%

Figure 22 Frequency distribution table on reasons for choosing smoothie over milk tea

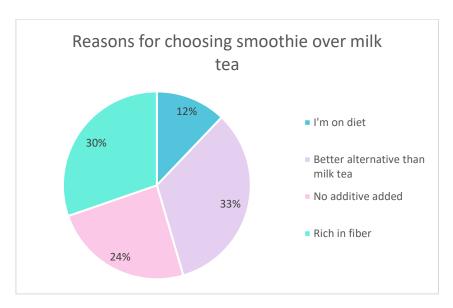


Figure 23 Pie chart on reasons for choosing smoothie over milk tea

Figure 23 is a pie chart showing the reasons on why respondents choose smoothie over milk tea. With 33%, 11 out of 33 respondents agreed that smoothie is a better alternative than milk tea. Meanwhile, 10 respondents thought that smoothie is rich in fiber (30%) and 8 respondents responded that there is no additive added (24%) on why the preferred smoothie. Lastly, 12% respondents responded that they are on diet.

#### **Quantitative Data**

Age

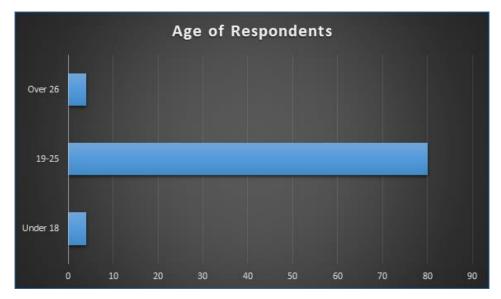


Figure 24 Bar chart on age of respondents

Figure 24 depicts the age of the respondents. A significant majority of our respondents (80 respondents) are between the ages of 19 and 25, while another two categories have the same number of respondents, responders under the age of 18 have 4 respondents and respondents over the age of 26 also have 4 respondents.

#### Monthly income

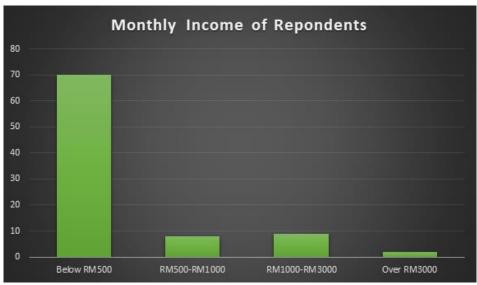


Figure 25 Bar chart on monthly income of respondents

Figure 25 depicts the monthly income of our respondents. The majority of our respondents (69 respondents) have a monthly income of less than RM500 while the fewest are 2 respondents that have a monthly income of more than RM3000. Just 8 respondents said their monthly income was between RM500 and RM1000 while 9 respondents said their monthly income was between RM1000 and RM3000. It appears that the majority of those who responded to this survey have a monthly income of less than RM500.

## Money spend on buying the chosen drink every month

#### • Milk Tea

STEM	LEAF	
0	0 5 8 8 8	
1	0 0 0 0 0 0 0 0 0 0 2 2 2 5 5 5 5 5 8	8
2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8	
3	0 0 0 0 0 0 5	
4	0 0 0	
5		
6	0	
	KEY: 1   2 MEANS 12	

Figure 26 Stem and lead for money spend on buying milk tea every month

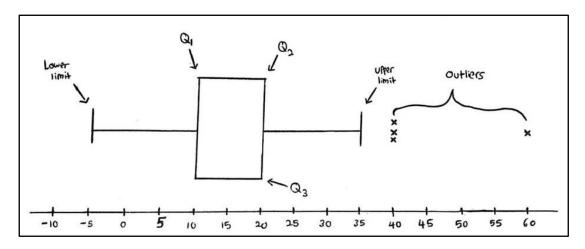


Figure 27 Box plot for money spend on buying milk tea every month

Based on the data given from the stem and leaf plot, we created a box plot to further illustrate the trend of the respondents who preferred milk tea on their monthly expenditure of milk tea. The mean calculated is 19.35 and the mode is 20. There are 4 outliers that have exceeded the upper limit for the box plot.

#### Smoothie

Money spend on smoothie every month (RM)	Frequency	Relative Frequency	Cumulative Frequency	Relative Cumulative Frequency	Percentage
7	1	0.03	1	0.03	3.03%
10	7	0.21	8	0.24	21.21%
13	1	0.03	9	0.27	3.03%
15	2	0.06	11	0.33	6.06%
19	1	0.03	12	0.36	3.03%
20	11	0.33	23	0.70	33.33%
22	1	0.03	24	0.73	3.03%
25	1	0.03	25	0.76	3.03%
30	6	0.18	31	0.94	18.18%
40	1	0.03	32	0.97	3.03%
50	1	0.03	33	1.00	3.03%
TOTAL	33				

Figure 28 Frequency distribution table on money spend on smoothie every month

stem	lea	af											
0	7												
1	0	0	0	0	0	0	0	3	5	5	9		
2	0	0	0	0	0	0	0	0	0	0	0	2	5
3	0	0	0	0	0	0							
4	0												
5	0												

Figure 29 Stem and leaf for money spend on smoothie per month

#### Key 1|4 = 14

Figure 28 showcases the stem and leaf diagram on money spend on smoothie by the respondents for a month. Most of the respondents (11) spend approximately RM 20 for smoothie for a month. Followed by 7 respondents who spend RM 10 on smoothie for a month and 6 respondents spend RM 30 on smoothie every month. Then, 2 respondents spend RM 15 on smoothie every month. Moreover, RM 13, RM 19, RM 22, RM 25, RM 40 and RM 50 spend by one customer for each value. The highest amount spend for smoothie for a month is RM 50 and the lowest amount spend on smoothie for a month is RM 7 and many be comfortable on spending RM 20 for their smoothie for every month.

#### Levels of sugar in chosen drink

#### Milk Tea

HOW MUCH SUGAR DO THE RESPONDENTS WANT IN THEIR MILK TEA (ON A SCALE OF 0 TO 10)	FREQUENCY
SCALE 0	0
SCALE 1	1
SCALE 2	1
SCALE 3	4
SCALE 4	5
SCALE 5	17
SCALE 6	3
SCALE 7	4
SCALE 8	8
SCALE 9	2
SCALE 10	10

Figure 30 Frequency on levels of sugar preferred in milk tea

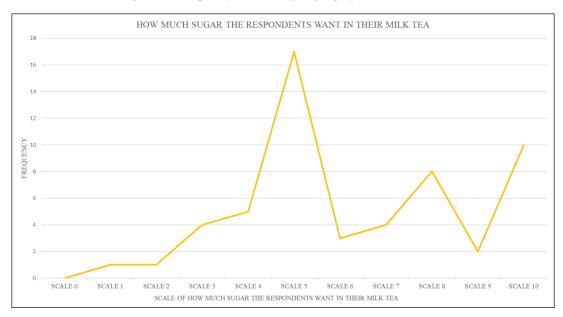


Figure 31 Graph on frequency of how much sugar respondents preferred in their milk tea

Respondents who preferred milk tea were surveyed to give their take on how much sugar intake they want in their milk tea, on a scale of 0 to 10. Based on the response given, a line graph was made to better illustrate the preference of the 55 respondents on sugar in their milk tea. The line graph shows that the majority (mode) of the respondents (31%) gave a scale of 5 to rate their sugar preference while the least popular answer was a scale of 0, in which no one chose. The median is also at scale 5. We have also assumed that the scale represented a variable in which we can use as a method to calculate the mean, which is 6.33 on average. By using this information, we can say that on average, the 55 respondents here preferred to have their milk tea on the sweeter side.

#### • Smoothie

HOW MUCH SUGAR DO THE RESPONDENTS WANT IN THEIR SMOOTHIE (ON A SCALE OF 0 TO 10)	FREQUENCY
SCALE 0	1
SCALE 1	1
SCALE 2	1
SCALE 3	2
SCALE 4	3
SCALE 5	7
SCALE 6	5
SCALE 7	4
SCALE 8	1
SCALE 9	1
SCALE 10	7

Figure 32 Frequency table for preferred sugar level in smoothie

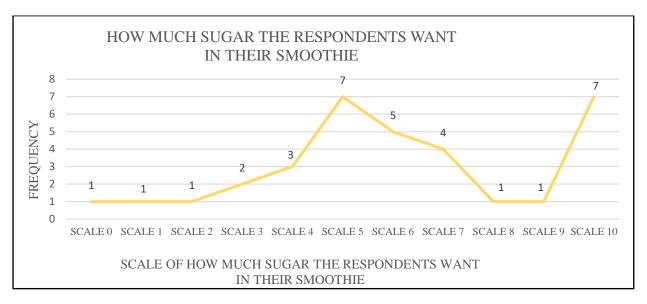


Figure 33 Line graph of preferred sugar level in smoothie

The line graph shows the preference of the 33 respondents who preferred smoothies on how much sugar they want in their smoothies. Based on the line graph, the most popular (mode) responses were scale 5 and scale 10 with frequencies of 7 (21%), while the least popular responses by the respondents were scale 0, 1, 2, 8 and scale 9 with frequencies of 1 (3%). We assumed that the scale represented a variable in which we can use to calculate the mean. From this information, we have found that the mean of the data is 6.10. In conclusion, we can say that the respondents who were given this survey preferred their smoothies either very sweet or normal.

#### Distance of any available drinks vendor from respondents' house

#### • Milk Tea

DISTANCE OF RESPONDENTS' HOUSE FROM THE NEAREST MILK TEA OUTLET (KM)	MIDPOINT (x)	FREQUENCY (f)	fx	CUMULATIVE FREQUENCY
0 - 5	2.5	32	80.00	32
5 - 10	7.5	18	135.00	50
10 - 15	12.5	5	62.50	55
		55	277.50	

Figure 34 Table on distance of respondents' house from the neasrest milk tea outlet

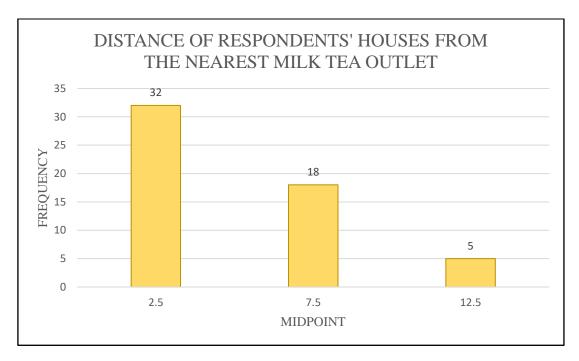


Figure 35 Bar graph on frequency of distance of respondents' house fron the nearest milk tea outlet

From the bar chart, we can see that the majority of the respondents (58%) who preferred milk tea live 0-5 KM from the nearest milk tea outlet. From the survey, we assumed that the respondents who live more than 10 KM were around 10-15 KM. From that method, we found that the lowest percentage of the distance between respondents' houses and the nearest milk tea outlet were 10-15 KM (9%). The mean for the given data is 5.05. From the mean, we can say that most of the respondents live close to a nearby milk tea outlet. The mode for this bar chart is 3.48 while the median is 4.30.

#### • Smoothie

DISTANCE OF RESPONDENTS' HOUSE FROM THE NEAREST SMOOTHIE OUTLET (KM)	MIDPOINT (x)	FREQUENCY (f)	fx	CUMULATIVE FREQUENCY
0 - 5	2.5	9	22.50	9
5 - 10	7.5	15	112.50	24
10 - 15	12.5	9	112.50	33
		33	247.50	

Figure 36 Frequency table for distance of respondents' houses from the nearest smoothie outlet

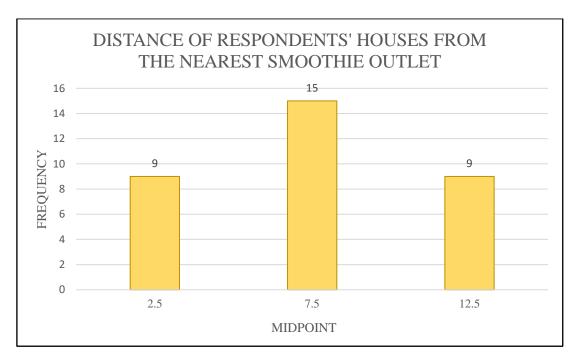


Figure 37 Bar graph for distcance of respondents' house from the nearest smoothie outlet

From the bar chart, we can see that among the 33 respondents who preferred smoothies, around 15 respondents (45%) live 5-10 KM away from the nearest smoothie outlet, which is the highest value in the bar chart. We assumed that respondents living more than 10 KM away from the nearest smoothie outlet were living 10-15 KM away. Respondents who live 0-5 KM and 10-15 KM away from the nearest smoothie outlet both have 9 (27%) respondents that have responded to the form. The mean for the data is 7.5. This shows that most respondents who answered the survey and preferred smoothies live not too far and not too close from the nearest smoothie outlet. The mode and median for the data are also 7.5.

#### Comparison

Comparison of monthly income vs how often the respondents drink smoothie/milk tea

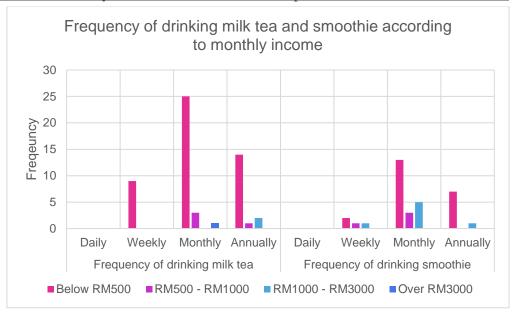


Figure 38 Bar chart of frequency of drinking milk tea and smoothie according to monthly income

According to the graph above, even if the respondent has higher monthly income, it does not mean the respondent will have higher frequency of drinking their preferred drinks. This can be seen as the respondent who has over RM3000 of monthly income, only drink milk tea monthly. On the other hand, those who have lower monthly income, drink their preferred beverages more frequent.

Comparison of respondents' medical history and their choice of drinks

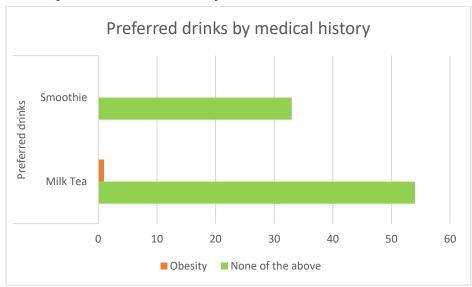


Figure 39 Bar chart of preferred drinks according to medical history

Even though there are several options of medical history in the online survey, but only one respondent has the history. Through the result, it can be said that even if someone has medical history, it does not mean they will opt for the healthier drink.

#### Comparison of price rating of drinks and the brand(s) chosen

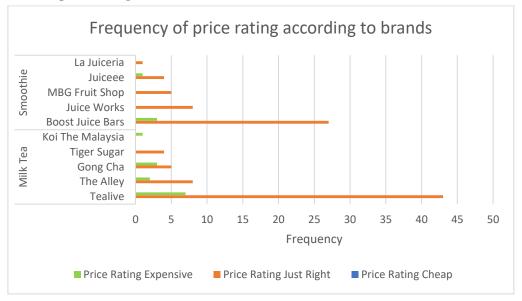


Figure 40 Bar graph for frequency of price rating according to brands

There are brands for the drinks that are more expensive than the other, as example Tiger Sugar cost more than Tealive. Thus, through this graph, we can see how the price rating is influenced by the brands chosen. Tealive and Boost Juice Bars are the favorite brands for most of those who choose just right for price rating, this is because the price for both brands are affordable.

## The respondents' reasons on their choice of drinks

As we can see in Figure 21 and Figure 23 under reasons for choosing the drinks, most of the respondents chose Milk Tea because of its fanciness and the taste. Meanwhile, the respondents that chose Smoothie are more focused on healthiness.

#### Comparison of price rating of drinks and customer's choice of drinks (milk tea or smoothies)

In Figure 9 and Figure 11, we can interpret that none of the respondents responded that either of the drinks are cheap. More percentage voted for expensive in milk tea (9%) than in smoothie (3%).

#### Comparison of price rating of drinks and customer monthly spending on the drink

The highest amount of money spend every month for respondents who chose milk tea is RM60, meanwhile the highest amount for those who chose smoothie is RM50. Most respondents spend RM10-RM18 for milk tea, and RM20-RM25 for smoothie every month. We can conclude that the amount of money in just right for milk tea and smoothies are not the same.

#### **Conclusion**

In a nutshell, people preferred milk tea over smoothie and there are many factors that influenced their choice. One of the biggest factors would be the abundance of milk tea's vendors if compared to smoothies. As we shared the survey to possible respondents outside of UTM too, we received many feedbacks and wider opinions about milk tea and smoothies. Through this study, we learnt how to use multiple software to create graph and understanding the data we have to further interpret it so that it could be easily understand by everyone. We believed we have fulfilled the idea we want to achieve at the start of the study.

## **Appendix**

Google form

https://forms.gle/kG75QARycQTHe9hJ9

Google spreadsheet for the responses

https://bit.ly/3nv0cHW