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Project 1
(A Survey on Preference of Online
Shopping Platform During Pandemic)

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Introduction

In advance of Covid-19 pandemic, although online shopping was in a stable development and popularization state, there were still some people who resisted or failed to contact. Some of them were worried about the security of online transactions and some of them owing to living in backward areas.

Nevertheless, the spread of Covid-19 pandemic has triggered drastic changes in global consumption behavior. The nationwide lockdown, limited opening of non-essential retail stores and the threat of infection in Covid-19 have accelerated the popularity of online shopping. As consumers gradually adapt to new shopping methods, many traditional retail stores are scrambling to adjust their strategies to online sales mode. Due to worried about the virus infection and store restrictions, consumers can only meet their own needs through online shopping. Thus, the usage of these online shopping platform has reached an unprecedented level.

Therefore, our group had conducted an online survey with topic of “A Survey on Preference of Online Shopping Platform During Pandemic”. The main purpose of this project is to study the dependence of people on online shopping during pandemic, including the frequency of online shopping per week and the overall monthly of online shopping expenses. This is to investigate the potential of online shopping as the main shopping method for people in the future when after the pandemic.

Data Collection

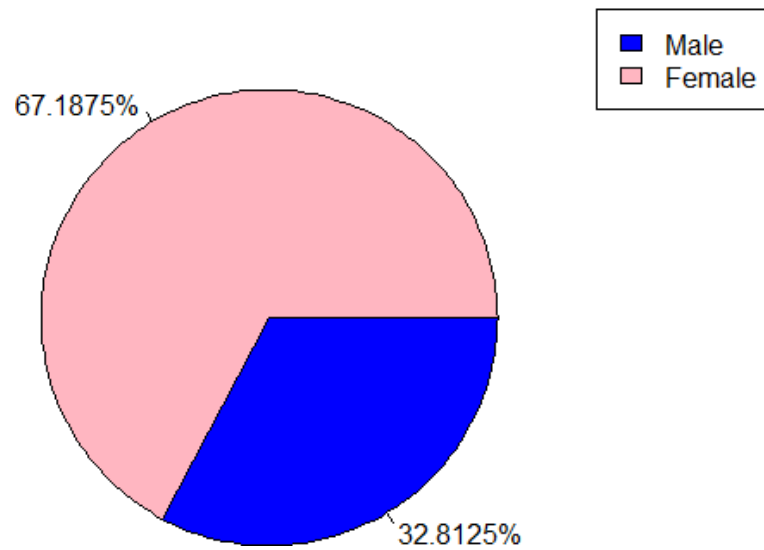
In this project, we conducted an online survey with the topic of “A Survey on Preference of Online Shopping Platform During Pandemic” through the use of Google Forms. This survey aimed to receive responses from students. In the end, we totally received the active participation of 64 students and given their responses in this survey. A list of 13 questions were prepared by our group members for this survey as shown in *Table 1*.

No.	Questions	Answers	Level of Measurement
1	Gender	Male / Female	Nominal
2	Age	Metric value	Ratio
3	Online shopping frequency per week	Metric value	Ratio
4	Preferred seller	Local seller / Overseas seller	Nominal
5	Preferred online shopping platform	Shopee, Lazada, Taobao etc.	Nominal
6	Reasons	Cheaper, free delivery and discount voucher, good product quality etc.	Nominal
7	Category of product	Groceries, anti-pandemic supplies, sports and lifestyle etc.	Nominal
8	Type of payment	Debit or credit card, online banking, e-wallets etc.	Nominal
9	Overall product satisfaction	Very dissatisfied (1) to Very satisfied (5)	Interval
10	Overall shipping service satisfaction	Very dissatisfied (1) to Very satisfied (5)	Interval
11	Maximum time acceptable for delivery of goods	Metric value	Ratio
12	Overall experiences	Poor (1) to Excellent (5)	Interval
13	Overall monthly expenses	Metric value	Ratio

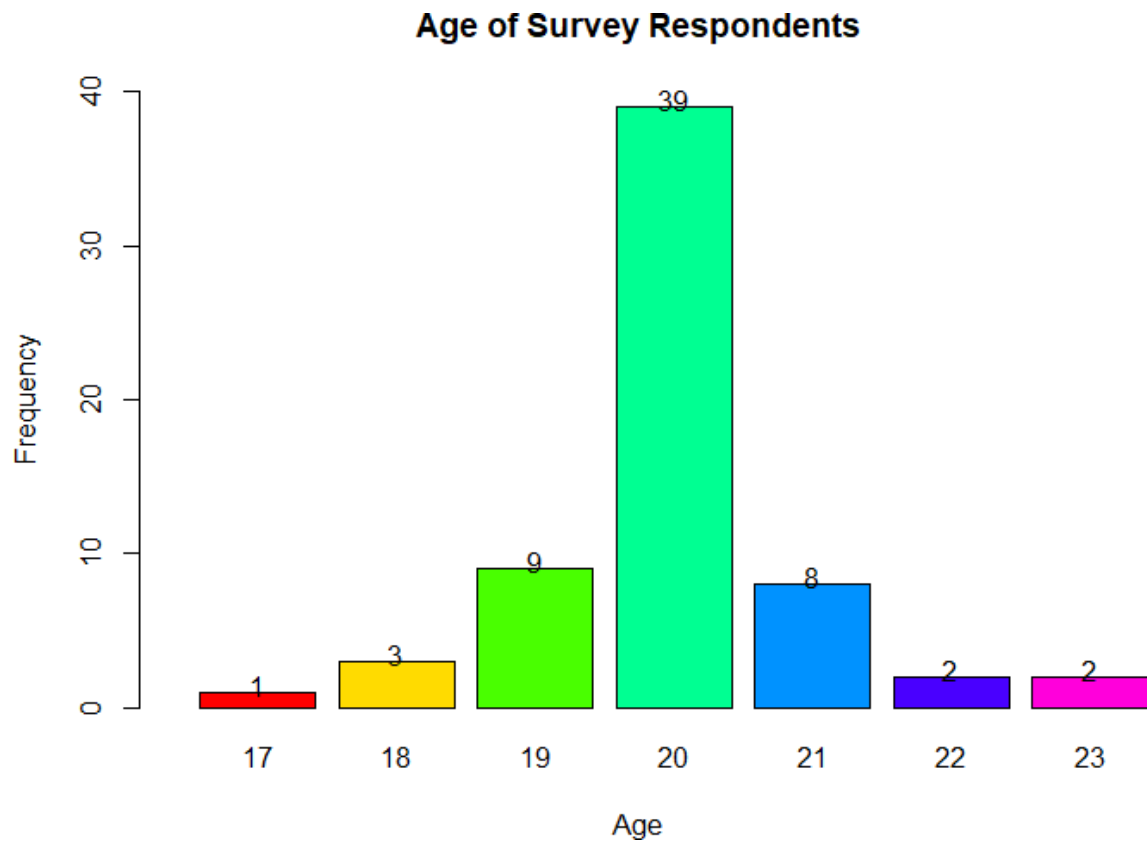
Table 1

Data Analysis

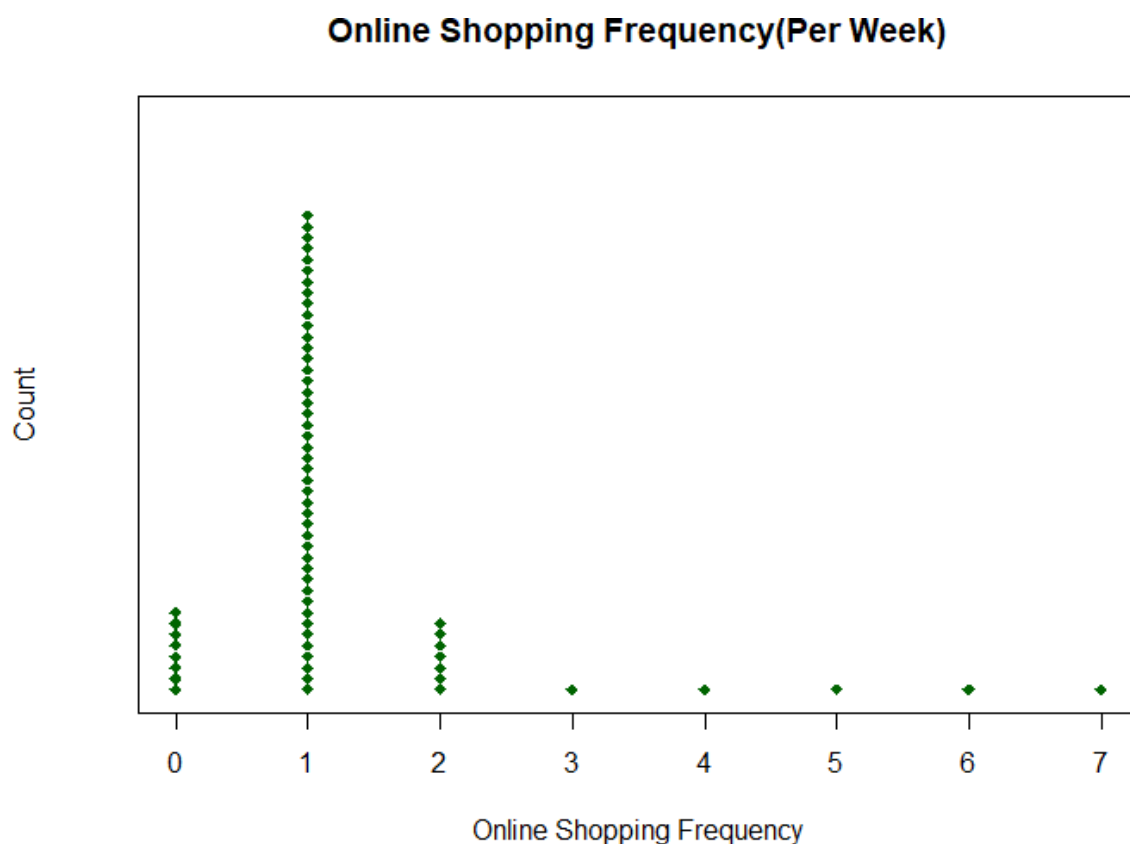
Gender of Survey Respondents



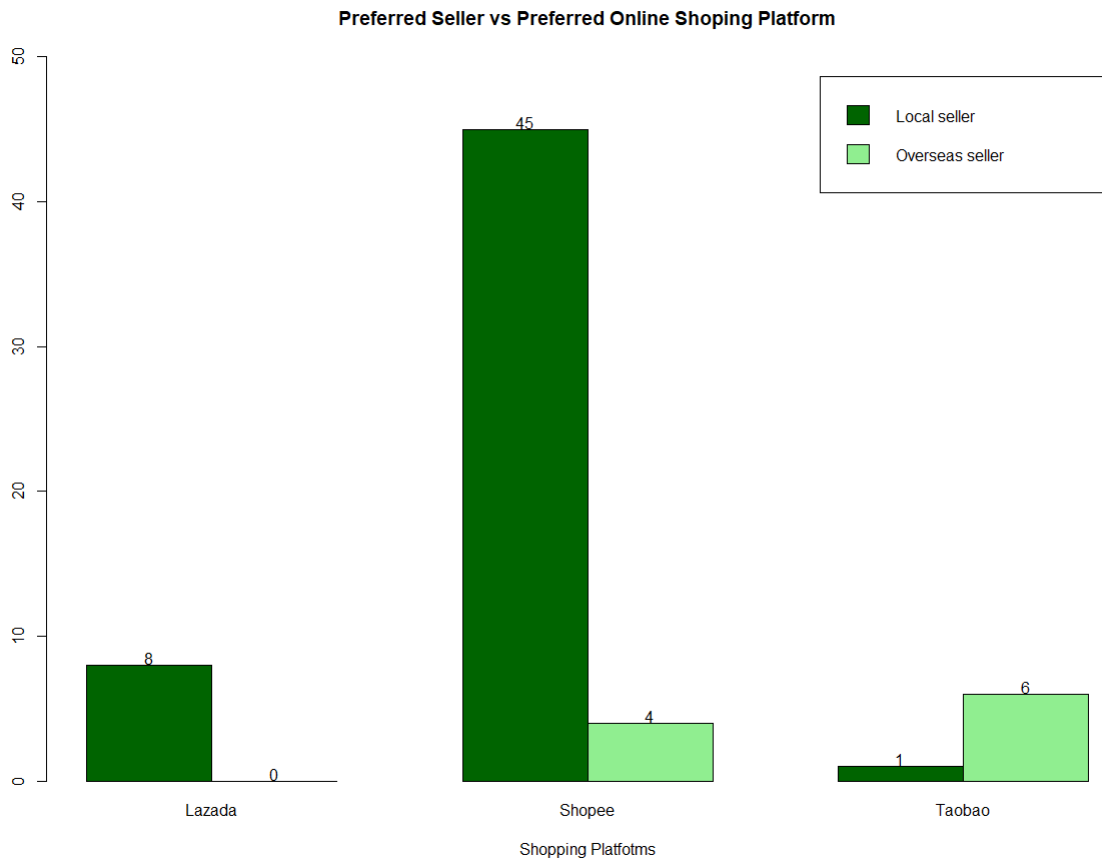
According to the pie chart above, out of 64 students filled in the survey form, 21 respondents are male (32.8125%) and 43 respondents are female (67.1875%).



The bar chart shows the age of respondents. The age is shown on the x-axis. According to the bar chart above, the most common student age group is 20 years old (39 respondents), followed by 19 years old (9 respondents), 21 years old (8 respondents), 18 years old (3 respondents), 22 years old (2 respondents) and 23 years old (2 respondents). The lowest frequency of age of students is 17 years old with a record of only 1 respondent. Hence, we can conclude that the majority of our respondents are Year 1 and Year 2 students.



The dot plot above shows the weekly online shopping frequency during pandemic of Covid-19. Most of the students purchased online once a week. As students' need for convenience increases, it is no surprise that over 85% of them are shopping online at least once a week. Most of the students purchased online once a week during pandemic Covid-19 Besides, there are 7 respondents purchases online exactly 2 times in a week. The least frequent online shopping frequency is 3 times, 4 times, 5 times, 6 times, and 7 times each week, they shared the same record which is only 1 respondent. Hence, we can state that online shopping has become one of the most popular way for students to spend their money during pandemic Covid-19.

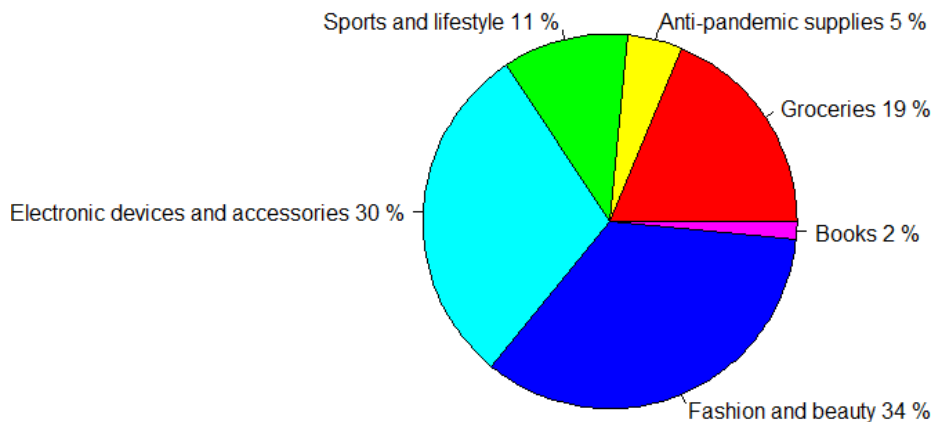


This comparative bar chart shows the preferred seller and preferred online shopping platform. Based on the chart above, most of the students (49 respondents) choose Shopee as their preferred online shopping platform. They also prefer buying from local seller (45 respondents) rather than overseas seller (4 respondents). There are 8 respondents choose Lazada as preferred online shopping platform, none of them prefer overseas seller. The least preferred online shopping platform is Taobao with the record of only 7 respondents, only one of them prefer buying from local seller (from Taobao local warehouse), others are prefer purchase directly from overseas seller. Hence, we know that Shopee is the most preferred online shopping platform for student during pandemic Covid-19 as there are many payments method available in Shopee and there is more free delivery and discount voucher for them to use when placing orders if compare with other online shopping platforms.

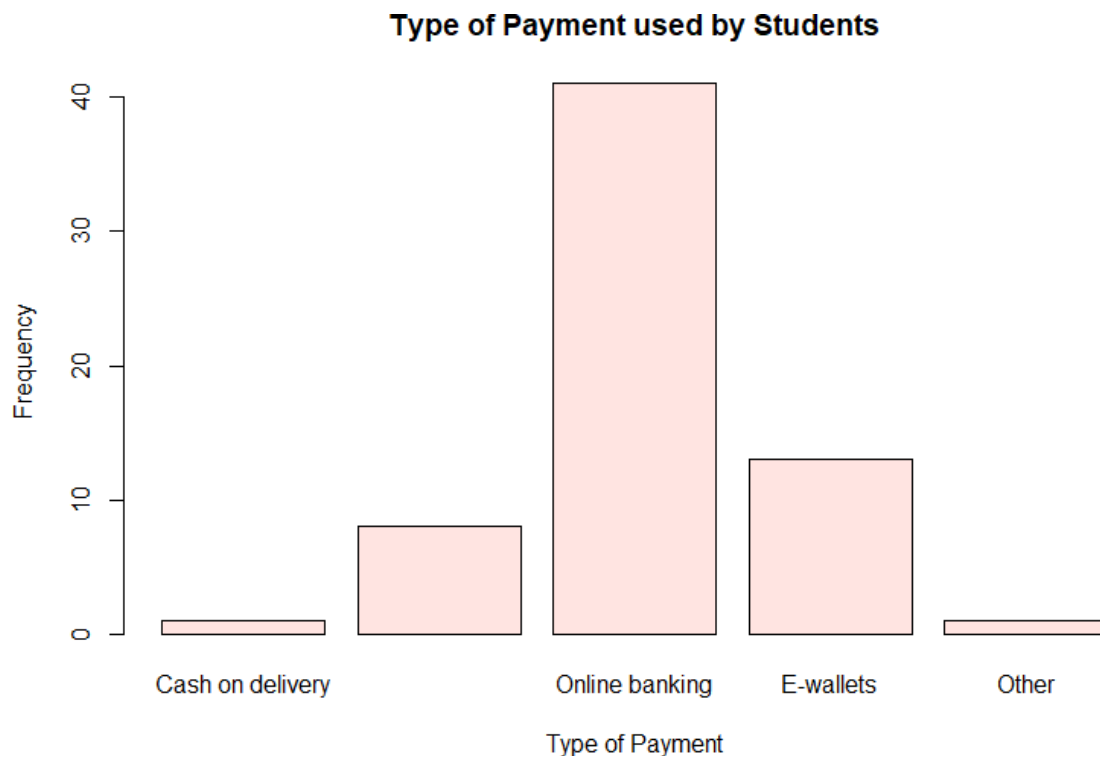


The bar chart above shows the reasons why people choose to purchase online during a pandemic. Covid-19. The majority of students (23 respondents) choose online shopping during pandemic Covid-19 because the item price is cheaper compared to retail stores. It is followed by free delivery and discount voucher (17 respondents), they do not have to go outdoors to buy daily supplies (16 respondents), and good product quality (5 respondents) as the reasons of choosing online shopping. Only 1 respondent chooses online shopping with the reason authentic guaranteed because there are flagship stores available on online shopping platform and it is authentic guaranteed if the products are purchased through flagship stores. Therefore, we can conclude that most of the students choose online shopping during pandemic Covid-19 because it is cheaper and there are many monthly promotion events on online shopping platforms.

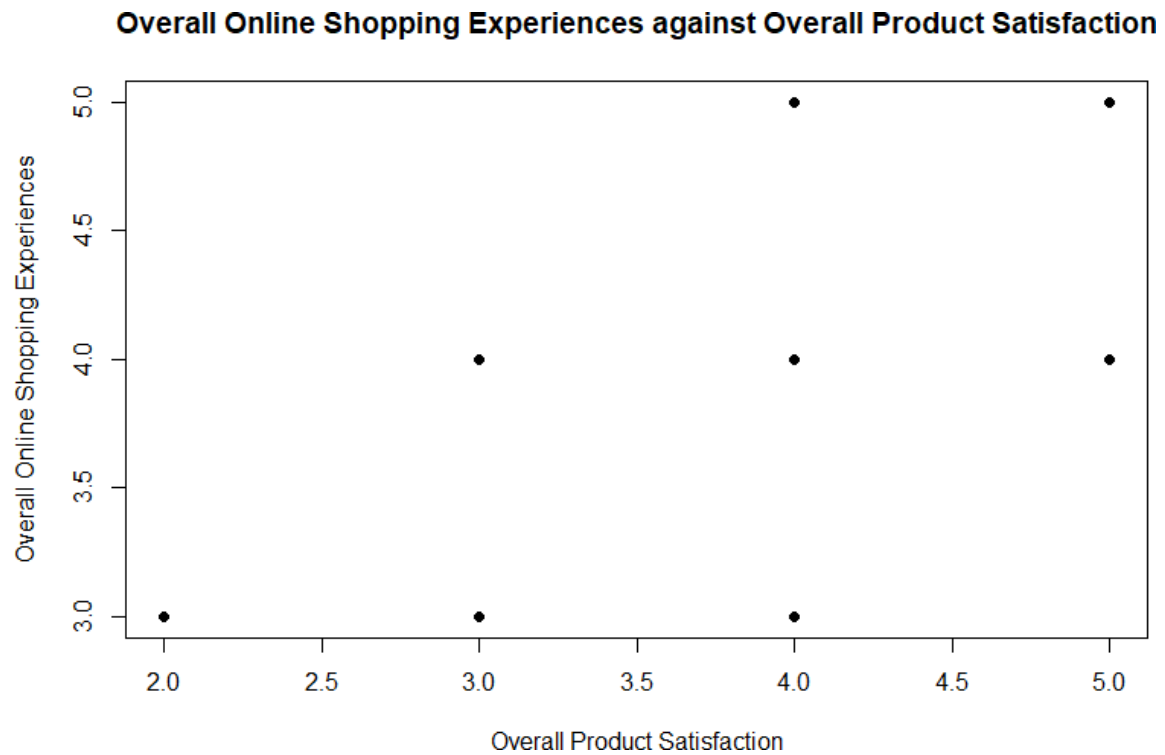
Category of Products Usually Bought by Students



This pie chart shows the categories of products usually bought by students during the pandemic of Covid-19. According to the pie chart, majority of the respondent preferred purchasing fashion and beauty type products (34%), followed by electronic devices and accessories (30%). Other than that, 19% of respondents will buy groceries while 11% of respondents usually purchase sports and lifestyle products. At the same time, only a few of the respondents choose to buy anti-pandemic supplies (5%) and books (2%). Hence, we get to know that fashion and beauty and electronic devices and accessories type of products are more popular among students compared to anti-pandemic supplies although the pandemic of Covid-19 is severe.

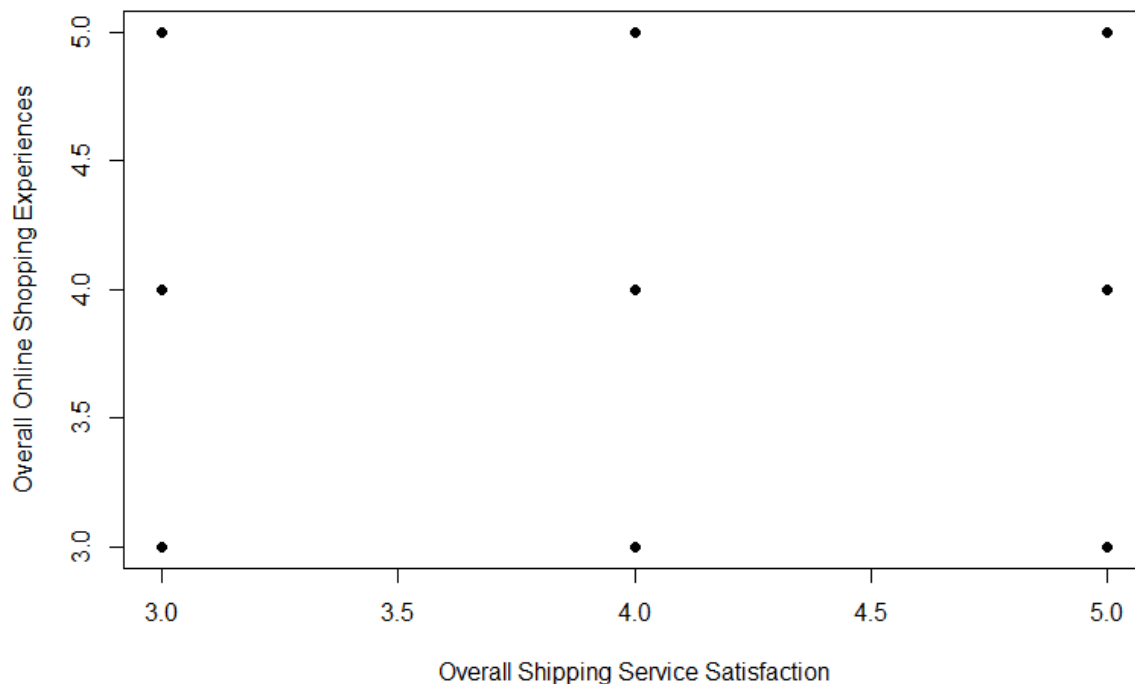


The bar chart shows the type of payment usually used by the students for online shopping during the pandemic of Covid-19. According to the bar chart, online banking is the most trending payment method used by the respondents (41 students), followed by e-wallets (13 students), debit or credit cards (8 students). Only one respondent chooses to pay via cash on delivery and others respectively. Thus, we can conclude that most of the students preferred to use contactless payment due to the pandemic of Covid-19.



The scatterplot shows the relationship between overall online shopping experience and overall product satisfaction. For both the overall shopping experience and overall product satisfaction, scale 1 represents very dissatisfied, scale 2 represents dissatisfied, scale 3 represents neutral, scale 4 represents satisfied, and scale 5 represents very satisfied. From the chart shown above, no respondents rate very dissatisfied for the overall product satisfaction and overall online shopping experience. Respondents who rate very satisfied (5) for the overall product satisfaction will rate higher rating for the online shopping experience (4 or 5). Meanwhile, respondents who feels dissatisfied with the product will rate lower rating (3) for the overall online shopping experience. Hence, we know that students hope to receive products with better quality during the pandemic of Covid-19.

Overall Online Shopping Experiences against Overall Shipping Service Satisfaction



The scatterplot shows the relationship between overall online shopping experience and overall shipping service satisfaction. For both the overall online shopping experience and overall shipping service satisfaction, scale 1 represents very dissatisfied, scale 2 represents dissatisfied, scale 3 represents neutral, scale 4 represents satisfied, and scale 5 represents very satisfied. From the chart above, we can conclude that the shipment of product will not completely affect the user's online shopping experience. This is because there are respondents' rate neutral (3) for the overall online shopping experience although the rating for the overall shipping service is high (4 or 5). However, some of the respondents still rate very satisfied (5) for the overall shopping experience when they feel very satisfied (5) for the overall shipping experience. So, we get to know that although the shipping service might be slow or bad due to the pandemic of Covid-19, but it will not directly affect the students' online shopping experience.

Maximum Time Acceptable for Delivery of Goods (days) by Students

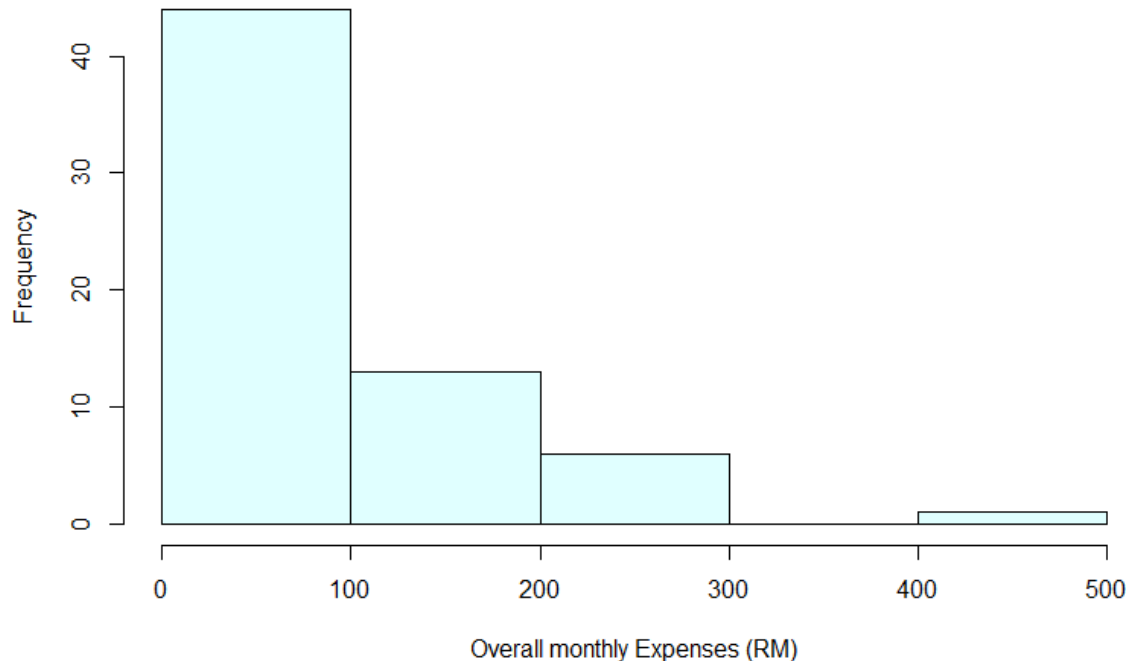
The decimal point is 1 digit(s) to the right of the |

```
0 | 112222333333333334
0 | 55555557777777777777
1 | 04444444444
1 | 5557
2 |
2 |
3 | 00000
3 |
4 |
4 | 5
```

Key: 4|5 means 45 days.

The steam-and-leaf plot shows the maximum time acceptable for delivery of goods by students during the pandemic of Covid-19. According to the plot, most of the respondents (44 students) wish to receive their parcel within a week (within 1 to 7 days). Besides, 10 respondents feel that the shipping duration of two weeks (10 days to 14 days) is acceptable while 9 respondents accept the time taken for delivery of goods is within three weeks to one month (15 to 30 days). However, a respondent feels that 45 days for delivery of goods is reasonable and is acceptable. Hence, we can know that students hope to receive their parcel within a week but some of the students accept the time taken for delivery of goods is one month if the parcel is shipped from overseas during the pandemic of Covid-19.

Overall monthly Expenses (RM) for Online Shopping by Students



The histogram above shows the overall monthly expenses by students for online shopping during the pandemic of Covid-19. From the histogram, we can see that the overall monthly expenses for majority of the respondents (44) is less than or equal to RM 100. However, only a respondent spends overall RM 400 – RM 500 and no respondent spends within RM 300 – RM 400 for a month. In addition, 13 respondents will spend around RM 100 – RM 200 for one month while 6 respondents have overall expenses of RM 200 – RM 300 in a month for online shopping. Hence, we can conclude that most students are thrifty and will not spend too much money on online shopping during pandemic of Covid-19.

Conclusion and Reflection

In this project, we mainly practiced the knowledge and skills of the previous chapters of probability and statistical data analysis. Each of us had his or her own specific task, and we took it seriously and completed it carefully. We learned to use Google Survey to investigate students' information. In addition, we also learned to use Microsoft Excel, SPSS and R programming to graphically analyze, summarize, summarize and present the data. To ensure clear and accurate data. We also understand and implement four levels of data measurement, namely nominal data, sequential data, interval data, and ratio data. In addition, I have a deeper understanding of R programming knowledge and drawing. The research contents of our group as a " A Survey on Preference of Online Shopping Platform During Pandemic ", through the analysis of data, understand the UTM university students during the epidemic situation of the network shopping information, compared with before, most people like to buy fashion and beauty products, followed by electronic equipment and accessories, from this we know that although COVID - 19 SARS epidemic, However, fashion and beauty products, electronic products and accessories are more popular among students than epidemic prevention products. In terms of payment, most students pay through online banking. Therefore, online banking is the most popular payment method used by interviewees. Reducing contact can effectively reduce the risk of illness, so most students prefer to use contactless payment method. Then came the survey on the overall satisfaction of the products purchased, and most students answered that they were very satisfied. Therefore, we learned that although the epidemic affected students' lifestyles and habits, they still gave high evaluation to online shopping. Finally, express delivery services may be slower or worse due to COVID-19. Some students think it takes a month to deliver goods from overseas, but it will not directly affect students' online shopping experience, which is acceptable to most students. And finally, the total monthly spending of students on online shopping, It can be seen that during the COVID-19 outbreak, nearly half of the students surveyed spent less than RM100, so most students are frugal and will not spend too much money on online shopping. Through this project, we have learned a lot of knowledge, which I believe will pave the way for us to learn and apply this knowledge in the future.

Google Form Link

<https://docs.google.com/forms/d/e/1FAIpQLSdAtPH8yUs6CGkxjjjODGdag7DlwKrnYtAcERJ7bFaRUMM8Qw/viewform>





A Survey On Preference of Online Shopping Platform During Pandemic

Greetings everyone!

We are from Probability and Statistic Data Analysis (PSDA) Section 07 Group Little Group.
This is a survey on preference of online shopping platform during pandemic Covid-19.
We require at least 60 respondents to complete our project.

Thank you for taking the time to complete this survey. Your participation is important for us.
We deeply appreciate your responses.

This survey is conducted by:

-  Tia Siaw Xuen
-  Kee Le Wei
-  Chua Xin Lin
-  Ma Ze Jun

 tiaxuen@graduate.utm.my (not shared) [Switch account](#)



* Required

Your gender *

- ☐ Male
- ☐ Female

Your age *

Eg: 18

Your answer

Online shopping frequency: (per week) *

Eg: 1

Your answer



Preferred seller: *

- ☐ Local seller
- ☐ Overseas seller

Preferred online shopping platform: *

- ☐ Shopee
- ☐ Lazada
- ☐ Amazon
- ☐ Taobao
- ☐ Other: _____

Reason: *

Why choose online shopping?

- ☐ Cheaper
- ☐ Free delivery and discount voucher
- ☐ Good product quality
- ☐ Flagship store (Authentic guarantee)
- ☐ Don't have to go outdoor
- ☐ Other: _____

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* Required

A Survey On Preference of Online Shopping Platform During Pandemic



Category of product: *

- ☐ Groceries
- ☐ Anti-pandemic supplies
- ☐ Sports and lifestyle
- ☐ Electronic devices and accessories
- ☐ Fashion and beauty
- ☐ Books
- ☐ Other: _____

Type of payment: *

- ☐ Debit or Credit card
- ☐ Online banking
- ☐ E-wallets
- ☐ Cash on delivery
- ☐ Other: _____



Overall product satisfaction: *

	1	2	3	4	5	
Very dissatisfied	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very satisfied

Overall shipping service satisfaction: *

	1	2	3	4	5	
Very dissatisfied	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very satisfied

Maximum time acceptable for delivery of goods: *

Eg: 1 day

Your answer

Overall experiences: *

	1	2	3	4	5	
Poor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Excellent

Overall monthly expenses: (RM) *

Eg: 100

Your answer

Thank you! Have a nice day!! 🙌🙌🙌🙌

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