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SPENDING BEHAVIOR OF UTAR UNDERGRADUATE STUDENTS

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DECLARATION

We hereby declare that:

(1) This undergraduate FYP is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the FYP.

(4) The word count of this research report is 17,474 words.

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CHAPTER 1: INTRODUCTION

1.0 Introduction

This particular section discusses the foreword background, issues, goals, and, matters regarding the topic of Spending Behavior of UTAR Undergraduate Students.

1.1 Background of Study

Spending, also known as consumer spending, is an act that inseparable from our daily life, where people use the money to obtain the goods or services they want. From the economic standpoint, we tend to look at how an individual uses the limited resources (money) he or she owns to consume and satisfy unlimited needs and wants. Besides, Skousen (2010) stated that consumer spending could bring an impact on the economy, where it contributes more than 70% to economic growth, especially during the economic recoveries. On the other hand, many factors could affect one's spending behavior. For example, life-cycle stage, consumer sentiment, family and peer influences, the attractiveness of advertisement, and many more. At the same time, just because of these factors, many people have no self-control when it comes to spending and thus lead to overspend and debt-ridden.

Most students left their parents or to say their "comfort zone" to start a new journey in college or university. At this time, students are required to manage their limited pocket money given by their parents more cautiously. The challenge they are about to face is the changes in consumption habits as well as the ability to manage their

spending. According to StudyMalaysia.com (2020), the monthly living cost of a student in Malaysia is around RM2,000. Within this RM2,000, accommodation and food have accounted for a large proportion (of RM300 to RM600; and RM600 to RM900 respectively), and the remaining will be spent on utilities, transportation, required course materials, and entertainment.

But in reality, there are some common money management mistakes made by students which might cause them to overspend: poor budgeting skills, dependent on credit cards, do not know how to distinguish between needs and wants, and lack of financial self-control. Case in point, most students tend to spend more on entertainment, an idolater, for example, tends to spend RM757 for a concert ticket without regret (Hassan, n.d.). In a research study conducted in universities across the UK, there are 52% of students are feeling financial stress. The worst is, there are 39% of students among the universities did not involve in financial planning at all ("Finance Digest", n.d.).

Spending behavior might be vary based on an individual's condition of life; at the same time, it is important to create a budgeting plan to manage where does the money goes in a week, or even a day. Without proper money management, many students tend to give up this journey halfway because of financial stress (University of Nebraska- Lincoln, n.d.). In addition, if a student lack of proper financial management, he or she tends to do a part-time job for extra pocket money. Hence, it shows the significance of possessing proper financial management skills, especially to a student in order to avoid overspending their monthly budget.

All in all, the common problems faced by students when comes to spending are overspending and rely on the credit card, for examples. The motivation of this research study is to investigate the spending behavior among university students as well as to raise awareness of good spending habits. At the same time, this research

also aims to answer these questions: “Does family income, price elasticity, financial literacy, and peer influence the spending behavior of UTAR undergraduate students?” and “Is there a difference between the online spending behavior of UTAR undergraduate students before and during the pandemic in different categories?”

1.2 Problem Statement

Some students might know how to spend their money well whereas some don't. Certain students may spend money by using their credit card and may spend more than what they intended to. It is significantly crucial for students to know how to spend their money properly. This research would help identify on what influences good spending behavior and what doesn't.

When people grow up to a certain age, some financial matters will be involved, especially undergraduate students, because they need to learn to be responsible for their daily lives after leaving the family. For example, buying daily necessities, luxury goods, rent or financial management. These activities are closely related to financial literacy. The role of financial literacy is that it can help students to understand their own funds and be able to freely distribute money in the context of rational consumption. Most young people do not have enough financial knowledge to manage funds. Financial illiteracy probably might affect their spending behavior put them in financial hardship such as overspending, rely on credit card, and increase their debt. College students' credit card decision makings are influenced by the financial knowledge that they possess. Students who score higher in personal financial literacy are more likely to use credit cards more responsibly (Robb, 2011).

Due to the outbreak of the COVID-19, people were encouraged to stay at home during Movement Control Order (MCO). This causes some changes in terms of their spending behavior. During this period, some individuals may spend more due to the convenience of online shopping. This research would help investigate the online behavioral changes in students in terms of spending before and during the pandemic in different categories. Although the pandemic has affected many commercial businesses. However, in this age of advanced technology, online shopping has become a convenience. People no longer need to go out to buy their favorite products. Among the younger generation, most people can shop online and have the habit of online shopping. At the same time, they also enjoy the moment of harvesting packages.

In 2020, Malaysia's e-commerce market are forecasted to expand by 24.7%, achieving 51.6 billion ringgits in the year 2024 stating that “Malaysia is one of the fastest-growing e-commerce markets in Southeast Asia. The COVID-19 outbreak has further accelerated this growth” (GlobalData, 2020).

1.3 Objectives of Research

1.3.1 General Objective

Identify the spending behavior of UTAR undergraduate students and the changes of online spending behavior in different categories

1.3.2 Specific Objectives

i. Investigate the factors (family income, price elasticity, peer influence and, financial literacy) that influence the spending behavior of UTAR undergraduate students.
ii. To investigate the changes of online spending behavior of UTAR undergraduate students before and after the pandemic in different categories such as leisure, ordering food from e-hailing apps, branded products, groceries, clothes, and health care products.

1.4 Research Questions

i. What factors influences the spending behavior of UTAR undergraduate students?

ii. Is there a difference between the online spending behavior of UTAR undergraduate students before and during the pandemic in different categories?

1.5 Research Significance

This research was established to make an evaluation on the elements which will impact the behavior of spending in the undergraduate University students. A more detailed account is to observe whether family income, price elasticity, financial literacy, and peer influence would have an influence on the spending behavior of undergraduate University students. Simultaneously, this research aims to find out whether there may be a difference in the undergraduate University student's online spending behavior prior to the pandemic.

The following significance of this paper may be a wake-up call for the students to be mindful of their spending behavior (Sorooshian & Tan, 2013). It would help raise awareness of good spending habits and unhealthy spending habits such as failing to budget, overspending, and incurring credit card debt. It would help them realized the importance of having a healthy spending behavior and ensure their long-term financial health.

In addition, there are many prior studies that have noted the spending behavior of university students. Nevertheless, very little was found in the literature on the issue regarding the changes of spending behavior among undergraduate University Students before and during the Covid-19 pandemic. This study could contribute to a deeper understanding of the changes in the spending behavior of the students that occurred prior to the pandemic.

Another research significance is that the data that is collected through this research would be beneficial to any potential researchers who are interested in studying the spending behavior of undergraduate University students and the changes of behavior before and after the pandemic. Thus, the findings of this research could be served as an overview and background for future researchers who are looking into this field.

Lastly, this research would enable companies to comprehend the spending behavior of undergraduate University students. By having this knowledge companies would be able to analyze what influences undergraduate University students to spend and ways to attract them to buy products (Clemons, 2008).

1.6 Conclusion

The conclusion is that this chapter consist of the background, issues, goals, and questions of the study. The aim of this study is to identify the spending behavior of the students and to investigate the differences of online spending behavior before and during the pandemic in different categories.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter is about the literature reviews of the previous studies done on the relating topic. Content of this chapter consist of underlying theories, literature reviews of dependent and independent variables. It also contains the proposed theoretical and the hypothesis that was designed accordingly.

2.1 Underlying Theories

2.1.1 Theory of Conspicuous Leisure

Based on "The Theory of Leisure Class", the author believed that the demand for goods and services draws a want to build a higher social class and financial groups in terms of networking. This behavior is known as "Conspicuous consumption", or "Conspicuous Leisure" and it has a crucial part when it came to social and economic progress in the early 1900 (Veblen, 1899). Conspicuous consumption is also known as excessive spending behavior to indicate or to flaunt their wealth to determine that they have a higher social class compared to others (Patsiaouras & Fitchett, 2012). The theory of conspicuous leisure has been identified as one of the factors of

consumption since the early ages, limited studies have been done about conspicuous leisure. (Mason, 1998). At the end of the 1900s, the behavior of conspicuous consumption started to fade as individuals become more aware of proper spending, and social diversity was accomplished through intelligence and preference effort (Patsiaouras & Fitchett, 2012).

2.1.2. Life Cycle Consumption

Life-Cycle Consumption proposed by Franco Modigliani and his student Richard Brumberg in 1950. The hypothesis states that individuals plan their spending and savings behavior during their life cycle. They intend to balance their consumption in the best way in their lives, by accumulating when they make money and not saving when they retire. The key assumption is that everyone chooses to maintain a stable lifestyle. They usually don't save a lot in one period to spend wildly in the next period but keep their consumption levels roughly the same in each period. Modigliani believes that the starting point of the life cycle model is to assume that the household's consumption and savings decisions at each point in time more or less reflect a conscious attempt to realize the distribution of consumer preferences during the life cycle, subject to the family's lifetime constraints imposed by accumulated resources (Pal, n.d.). By building and reducing assets, working people can prepare for retirement. More generally, they can adjust their consumption patterns based on their needs of different ages, rather than the income of each age (Deaton, 2005).

2.1.3 Psychological Law of Consumption

The psychological law of consumption, also known as Keynesian consumption function, was established by John Maynard Keynes, a British economist. Keynes aimed to clarify the relationship between the consumer's income and expenditure, at an aggregate level (Kenton, 2020). Keynes also held that one's total income will only be allocated either in spending or savings. Thus, when there is an additional income comes into one's pocket, he will only decide whether to increase his spending or savings or both. There is an equation used to make up his theory:

$$C = \bar{C} + MPC(Y)$$

The total consumption, C is the combination of autonomous consumption, $\bar{C}$ and the marginal propensity to consume, MPC multiplies with the disposable income, Y. Autonomous consumption can be defined as the expenditure an individual made when his income is zero. Besides, the marginal propensity to consume (MPC) is a key element in this function which is used to determine the proportion of disposable income that has been spent (Investopedia, 2021). At the same time, Keynes brings out that the value of MPC is always more than 0 and less than 1, which support his theory of "psychology in the community": when one's income increases, it will lead to an increase in consumption, but the level of consumption increases will be lesser than the increase in income. However, Keynes did not mean to say an increase in income will cause consumption to fall. That is because of the law of diminishing, which also shore up the principle of "MPC will further decrease as income increases" (García-Lizana & Pérez-Moreno, 2012).

2.1.4 Permanent Income Hypothesis

"Consumer spending is unpredictable, as their spending behavior will change based on their expectations and preferences, and the expectation here indicates the long-term average income" (Kagan, 2020). This theory is the so-called permanent income hypothesis, it was drawn up by an American economist, Milton Friedman in 1957. It is the opposite of the Keynesian law of consumption function, where Keynes believes that consumer expenditure will solely depend on the income after tax, at least in the short-term. On the flip side, Milton observes the changes in spending behavior based on consumer's income and permanent income. Also, he believes that an individual will prefer consumption smoothing rather than keep changing their spending behavior after receiving additional income. For instance, an individual will not increase his or her spending merely due to a one-off bonus payment given by the boss, instead, he or she might choose to save the bonus received because of the expectation for future income.

2.1.5 Hyperbolic Discounting Theory

The Hyperbolic discount theory considers the time-inconsistency in the process of choosing options. Some individuals who are known as present-oriented people tend to prefer to get quicker rewards, but less significant value compared to waiting longer for a significantly higher reward. These types of individuals rather get their satisfaction immediately compared to delaying it. Therefore, some individuals may delay in particular situations. For instance, individuals delay in saving (Angeletos et al., 2001). Based on the study of Angeletos et al. (2001) most consumers would show hyperbolic discounting

behavior in their early stages of life as they prefer instant satisfaction, and these individuals would mostly delay the decision on saving as they presume that they would save and budget more effectively in the future date. Plus, the author also found that younger individuals tend to spend more on their credit cards. However, hyperbolic discounting has some flaws which are not considered inside the theory such as restricted rationality and spontaneous spending, these two factors may also affect consumer spending behavior (Villanueva, 2017).

2.2 Review of variables- Spending Behavior

According to the study of Abawag et al. (2019), the authors found out that most of the students are facing money management problems after they began college life. The results showed that students spend their allowance on food, (of 39% to 55% of their allowance), academic purpose (of 12% to 23%), personal needs (of 5% to 21%), and transportation (0% to 10%). The study also stated that the students can manage the amount of money they are going to spend on personal needs and academics. However, students are loose in spending when it comes to food and transportation, and this might become the most significant factor in causing students to overspend. Furthermore, a student's spending gradually increased over the years, Sorooshian and Tan (2013) attempt to place the current spending behavior of Malaysian students together with financial literacy. The authors pointed out that students are now pursuing those luxury brands; meanwhile, they did not realize that there is any problem with their spending habits. In this respect, they emphasize again the importance of possessing financial knowledge and money management skills, especially to the youth.

According to Sabri et al. (2008), most college students have a low level of financial behavior. More than half of the respondents use their money for shopping, they did not save any money when they received scholarships or education loans. Approximately 45% of students used all the money that they possess before their school semester ends, only a part of the pupils which is amounted to 17% choose to share that money with their family members, and 13% of students used their money to pay off debts.

2.2.1 Review of variables- Changes of Spending Behavior

Due to the pandemic, students had to resort to online learning thus, it limits the spending of students as they are not encouraged to go on outings. Several students have reported that they were spending less compared to the time before the pandemic. It was well known for students to spend money on alcohol pre-Covid but now the college students are spending more in terms of take-outs or groceries. This resulted in some students saving more money. Not to mention, the students allocate their money more towards food during the pandemic in terms of grocery shopping. However, the students are spending significantly less compared to pre-pandemic times. The reason for this is because students would eat out in restaurants more before the pandemic and restaurant foods are known to be pricey. Transportation fees for the students has decreased drastically as online deliveries are widely available. Other than that, weekly online shopping has also increased 14% for millennials and Gen Z's. It was also discovered that students have shifted their spending towards household or individual-associated items more compared to social-associated items. To conclude, spending for students has shifted more towards necessities (Mckenzie, 2020). Consumers tend to show a behavior of panic buying during

a crisis such as the pandemic. Customers would tend to buy more goods to store in their homes which would cause a shortage in supply. This means that demand is more than supply which would increase the pressure in the community (Jabbour et al., 2020)

Minimum research was founted on the changes on spending behavior of the students before and during the pandemic however, several studies have been done on the population instead. Based on the findings of Gu et al. (2021) found that there was also an increase in purchases regarding leisure products. Moreover, according to Shin and You (2020), consumers have increased their spending online through online shops and take-out services as contactless services are demanded due to the pandemic and there is a high chance that this behavior would also continue after the pandemic is over. Besides, Gu et al. (2021) noticed that online spending on luxury goods decreased by 2.8% since the pandemic began. Grashuis et al. (2020) discovered that consumers had shown a growth in buying groceries online due to the closure of restaurants during the periods of lockdown. Consumers prefer to shop online more as more cases of the Covid-19 virus were reported. Moreover Gu et al. (2021) discovered that online spending on clothes has declined by 5.2% since the beginning of the pandemic. According to Andersen et al. (2020), the authors discovered that there was an increase in the consumption of common goods and medication or supplements whereas there was a huge decline in the consumption of other sectors such as travel-associated items or services (see Appendix 2.1).

2.2.2 Review of variables- Family Income

Most University student's income for living expenses are financed by their parents, educational loans from Perbadanan Tabung Pendidikan Tinggi Nasional (PTPTN), and scholarships (Salikin et al., 2013). Plus, majority of the studies in the literature review have shown the significance between the relationship of spending and family income. Salikin et al. (2013) & Naradin et al. (2017) discovered that University students who have low family income are prone to saving instead of spending compared to students who are from higher-income households. The reason for this behavior is because students that are from well-off families believe their parents would continue to support them when it comes to their finances and most of these students don't have an appropriate plan for their future finances.

Based on the findings of Mohamad et al. (2016), the authors discovered that individuals with greater amount of allowances are more prone to spending larger amounts of money as opposed to those who did not receive high allowances. Other than that, other researchers have discovered that University students are prone to have a greater spending habit, have no concern in financial affairs, and tend to save less money for future emergencies. Family income can be a factor that decides the lifestyle of the student in terms of social order, resources, and openings that are assessable them (Robb and Pinto, 2010).

According to Nano et al. (2015) found that most university students who have a good financial attitude are from low family income households. The reason for the good financial attitude is due to having financial difficulties in the past or during their childhood and this caused them to be more wary when it comes to money. Nevertheless, university students who have bad financial attitudes

are mostly from households that have high family incomes. The reason for this is due to having a mindset that money is something that can be effortlessly obtained.

On the other hand, one study has found opposite results from the other studies, where the higher the family income, the higher the responsibility when it comes to spending behaviors in youths. To put it in other words, university students may have good spending behaviors if they come from well-to-do families. The authors also suggested that individuals who have the mindset that money is equal to talent, determination, accomplishment, and intellect are more prone to spend money irresponsibly (Jorgensen et al., 2016).

Nevertheless, student's spending behavior could be explained from the view of Psychological Law of Consumption which states that an increase in income would lead to an increase in spending (García-Lizana & Pérez-Moreno, 2012). Based on the findings of most of the literature reviews regarding family income, students from high income families would spend more compared to students from middle to low-income families. In a way, this can also be viewed form the student's perspective. Students would spend more if their parents were to increase their allowances as well (see Appendix 2.2).

2.2.3 Review of variables- Price Elasticity

Found on the study of Kauv and Blotnicky (2020), student's price sensitivity is one of the major concerns in making a purchase decision. For instance, a price-sensitive student tends to choose an ordinary brand whereas a less price-sensitive student tends to choose a luxury brand. Meanwhile, certain factors might affect the student's price sensitivity and therefore influence student spending behavior. The factors are peer influence and brand trust. Case in point, when a student's buying perception and willingness to buy are affected by peer influence and brand trust, they are considered less sensitive towards the price.

According to Heijnen (2015), students whose income is financed through student loans have lower self-control in spending behavior, which leads to lower price sensitivity, easier consumption, and this might lead to more impulsive shopping. According to Hervé & Mullet (2009), the impact of age on the perceived importance and interaction of three known factors that affect people buying clothes is studied: price, durability, and suitability. The results show that for young participants, they pay more attention to price, and low prices are considered a sufficient reason to buy clothing.

In addition, based on the study of Goldsmith et al. (2010), the authors found that individuals would pay more money for a product that will increase their status. College students were indeed affected by status consumption, and they are willing to pay more for goods that would represent or to increase their status. Thus, there is a relationship between spending and price sensitivity (price elasticity) when it comes to status consumption. In other words, price sensitivity will decrease when status-seeking student is trying to buy a

product. The authors indicate that there are three concepts between price sensitivity and status spending which are participation, creativities, and brand devotion. Other than that, the authors also found that students will pay more for clothing when it comes to their status (See Appendix 2.3).

2.2.4 Review of variables - Peer Influence

Peer pressure has greatly raised the brand consciousness among students and thus gradually generated their comparison psychology. Case in point, in the consciousness of many students, peers with Apple products in hand have been subtly classified as wealthy. In this case, students might feel self-abased and out of tune with their social group if they are not possessing those luxury brands. Thus, the author showed the significant relationship between peer pressure and the buying behavior of students. Nonetheless, the author does not guarantee that an increase in student spending indicates negative peer pressure, positive peer pressure will do the same (Gulati, 2017).

Besides, most of the studies have further substantiated that peer pressure and spending of students do have significance with one another, where pupils will greatly depend on the opinion given by their reference groups such as family members and peers before making a purchase (Gillani, 2012). For instance, a non-Apple user bought an Apple computer on a whim is mainly caused by peer influence (Kauv and Blotnicky, 2020). In other words, the consumer's decisions will be swayed easily by the opinion of their peers just as shown in the study of Mohamad et al. (2016), "friend's information is the most significant factor in influencing student's spending".

Other than that, Gulati (2017) stated that peer influence could be an opportunity for the manufacturer to increase its sales. Not only that, but Chang and Nguyen (2018) also claim that the positive relationship raised between peers and purchase intention might be caused by the attractiveness of the advertisement, which including the phrase “Refer a friend to get an X% discount”.

Simultaneously, the peer influence on the student’s spending could also be explained by the theory of conspicuous leisure, which stated that consumers will overspend to flaunt their wealth and to indicate themselves have a higher social class compared to others at the same time (Patsiaouras & Fitchett, 2012). In this case, this could form comparison psychology within a students' cogitation (Gulati, 2017). And thus, might cause students endless pursuit of luxury products even the product's price can cost them an arm and leg, as this could make them appear to be "wealthy" (See Appendix 2.4).

2.2.5 Review of Variables- Financial Literacy

According to Zulfaris et al. (2020), all financial literacy and parental socialization are positively related to fund management. This is because a lot of students admit that they cannot control their own money management. Also, Arofah et al. (2018), Financial literacy has a crucial and positive impact on financial behavior in individuals. Pupils who possess a high rank of financial literacy exhibit excellent financial behaviors.

Fund management skills are the main tool for controlling them to obtain a quality lifestyle as employed adults as pupils' spending patterns in their university years would influence how they handle money for the rest of their lives. The study shows that students need to have the financial knowledge to restrain potential difficulties that may occur due to absence of personal financial management knowledge (Shahryar & Tan., 2014).

The results showed that students with economics content in the course indicated more that they controlled their finances and had better financial knowledge on average. Participating in economics/finance courses can improve financial literacy and the sense of mastering the financial field, which is important for turning knowledge into practice (Kozina & Ponikvar, 2015).

On the contrary, Mandell & Klein (2009) investigates the different effects of personal financial management courses completed 1 to 4 years ago. The survey results show that those who have participated in the course do not have a better understanding of financial knowledge than those who have not. In addition, they did not assess that they were more saving, and there seemed to

be no better financial behavior than those who did not participate in the course.

Meanwhile, the financial literacy impact on student's spending behavior can be explained by the life cycle consumption theory which stated that people will plan their spending and saving throughout their lifetime, by balancing consumption and tend to save while they are earning money but not retire (Pal, n.d.). Besides, it is important that people have sufficient financial literacy to know the importance of budgeting and saving as explained by hyperbolic discounting theory, people who no budget and savings, they will spend more money. According to Villanueva (2017), the author also found that young people tend to spend more on credit cards (See Appendix 2.5).

2.3 Proposed Theoretical/ Conceptual Framework

2.3.1 Family Income

Based on the finding through the literature review, most of the results shown that majority of the pupils who are from low-income families are more prone to saving by spending less. At the same time, University students who are from high-income households have a bad financial attitude since they think money comes easily (Nano et al., 2015). Nevertheless, reverse results were found in the study of Jorgensen et al. (2016). This research would investigate on whether undergraduate University students from UTAR would exhibit a

positive or a negative relationship between family income and their spending behavior.

2.3.2 Price Elasticity

Most studies found that students might become less price-sensitive because of peer pressure, sources of income, and vanity, and thus cause them to increase their spending. Kauv and Blotnicky (2020) mentioned that students might accept the opinion of peers or purchase the same products as their peers, and eventually ignored the price of the products. Besides, Heijnen (2015) showed that one who holds a student loan has lower price sensitivity due to a lack of self-control. Also, a status-seeking student is willing to spend more on luxury products to show off their financial ability (Goldsmith et al., 2010). On the flip side, price elasticity could also make one more prudent on their spending as showed by Hervé & Mullet (2009).

2.3.3 Peer Influence

Peer pressure has greatly affected the spending habits of students, which is substantiated by many studies. The most notable reason is that students hope to seem like keep in line with their peers, and thus endless pursuit those luxury products that are beyond their capabilities (Gulati, 2017). Apart from this, students frequently accept the opinion of their peers before they make a purchase (Gillani, 2012, Kauv and Blotnicky, 2020; Mohamad et al., 2016). In addition, the marketer takes "peer influence" as an opportunity to boost their

sales, by using attractive advertisements to encourage one person to lead more people to consume (Chang and Nguyen, 2018).

2.3.4 Financial Literacy

One of the major factors that might affect students spending behavior was financial literacy, proved by Kozina & Ponikvar (2015), Shahryar & Tan (2014), Zulfaris et al. (2020), and Arofah et al. (2018). However, based on what Mandell & Klein (2009) outcome is in a contrary view which the financial literacy does not affect spending behavior. According to McGurran (2019), consumers with financial knowledge cannot merely handle money more assertively, they deal with the uncertainties in financial life by figuring out how to counteract and manage problems that arise.

Figure 2.1: *Proposed Theoretical/ Conceptual Framework for Student's spending behavior, family income, price elasticity, peer influence, and financial literacy.*

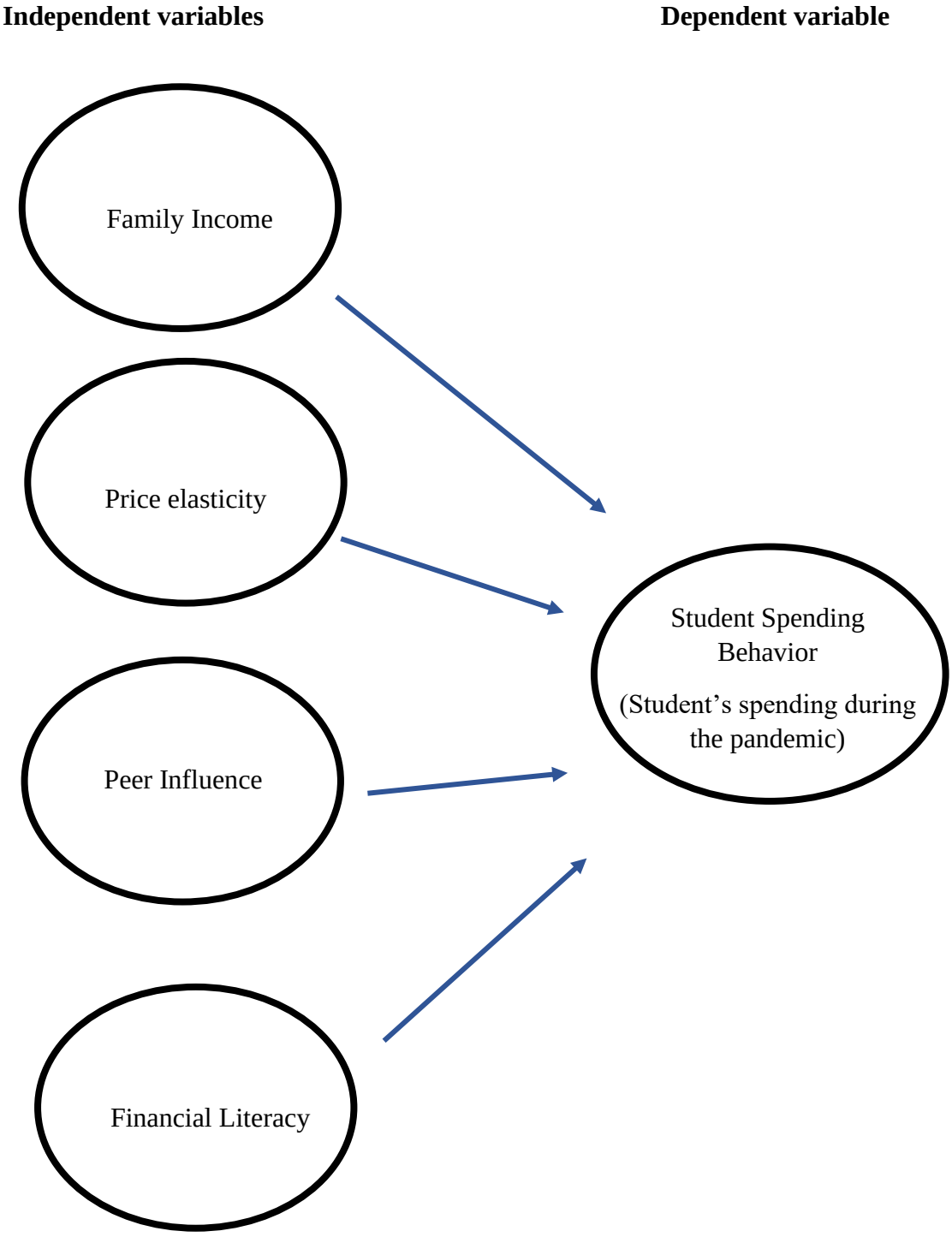
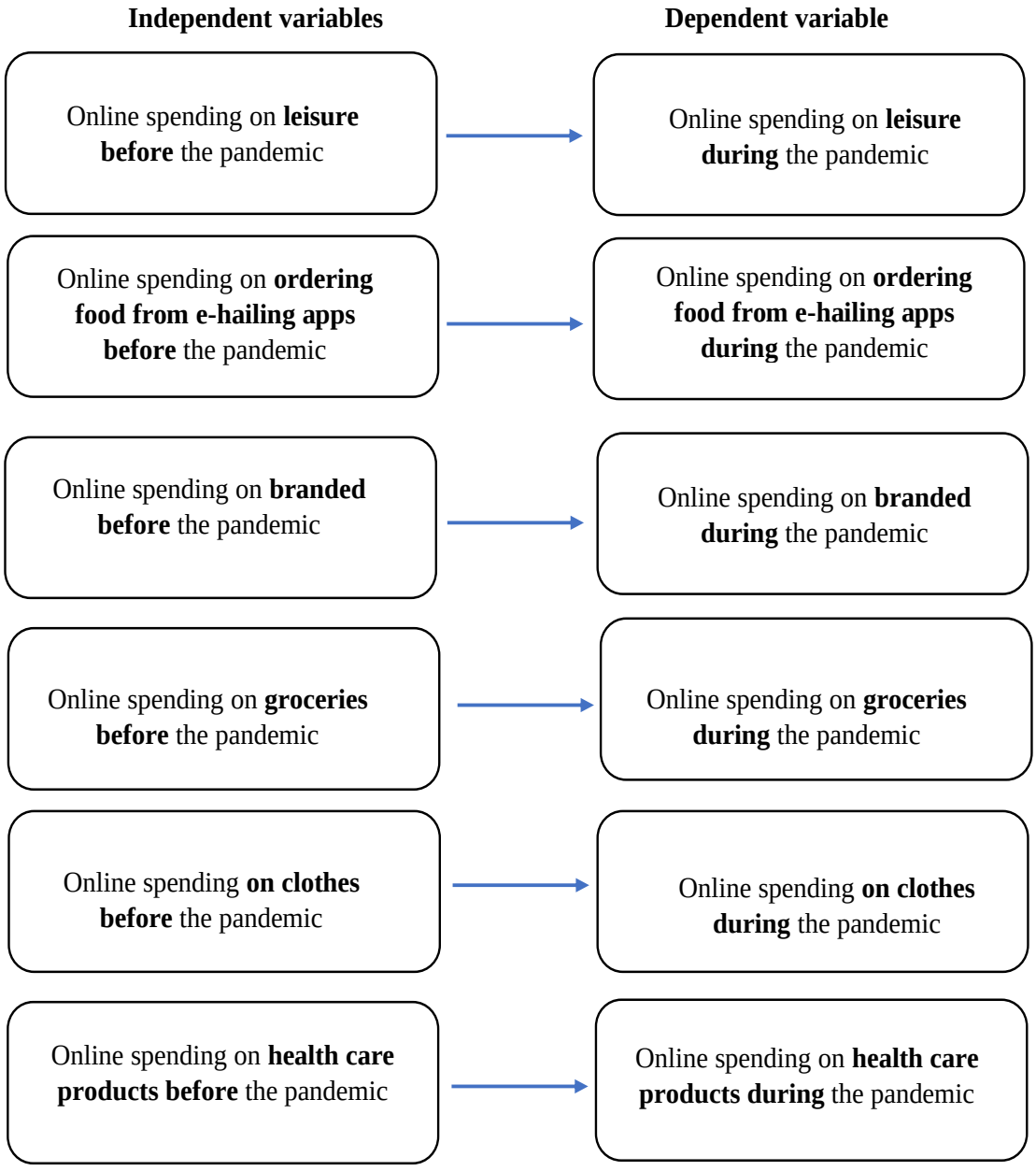


Figure 2.2: *Proposed Theoretical/ Conceptual Framework for the changes of online spending behavior in different categories*



2.4 Hypotheses Development

H_0: There is no significant relationship between family income and student spending behavior.

H_1: There is a significant relationship between family income and student spending behavior.

According to the discovery of the literature reviews from Salikin et al. (2013), Naradin et al. (2017), Mohamad et al. (2016), Robb and Pinto (2010), & Nano et al. (2015), most of the outcomes have shown that there is a significant positive relationship between the family income and student spending behavior. The authors found that the greater the family income of a student, the higher the possibility to spend more money and they are not wary of their spending as compared to students from lower income families.

$H2_0$: There is no significant relationship between price elasticity and student spending behavior.

$H2_1$: There is a significant relationship between price elasticity and student spending behavior.

Based on the literature reviews found, the results show there is a significant positive relationship between price elasticity and student spending behavior. This is supported

by the studies of Kauv and Blotnicky (2020), Heijnen (2015), and Goldsmith et al. (2010), who mentioned that various factors such as peer influence, source of income, and vanity might lead to lower price sensitivity and thus increase student's spending.

$H3_0$: There is no significant relationship between peer influence and student spending behavior.

$H3_1$: There is a significant relationship between peer influence and student spending behavior.

According to Chang and Nguyen (2018), Gillani (2012), Gulati (2017), Kauv and Blotnicky (2020), and Mohamad et al (2016), the authors found out that there is a significant positive relationship between peer influence and student spending behavior. The main reason is that students probably will follow the trend and accept the opinions given by their peers even the price is unaffordable to them.

$H4_0$: There is a no significant relationship between financial literacy and student spending behavior.

$H4_1$: There is a significant relationship between financial literacy and student spending behavior.

According to Zulfaris et al. (2020), Arofah et al. (2018), Shahryar & Tan (2014), and Kozina & Ponikvar (2015), found a presence of positive significance amongst financial literacy and student spending behavior because financial knowledge might affect the student's spending behavior as they might know how to manage their personal finance and budgeting to avoid overspending or debt.

$H5_0$: There is no significant change on online spending behavior on leisure before and during the pandemic.

$H5_1$: There is a significant change on online spending behavior on leisure before and during the pandemic.

Amid the widespread of the pandemic, individuals had the luxury to enjoy more of their time on leisure as they had to limit their movements to avoid spreading the Covid-19 virus. Hence, individuals were more engaged and motivated to do activities for their leisure based on their interests (Morse et al., 2021). Thus, the spending on leisure might increase during the pandemic as well. Other than that, Gu et al. (2021) found that there was also an increase in purchases regarding entertainment or leisure products.

$H6_0$: There is no significant change on spending behavior on ordering food from e-hailing apps before and during the pandemic.

$H6_1$: There is a significant change on spending behavior on ordering food from e-hailing apps before and during the pandemic.

Based on the research done by Shin and You (2020), individuals had increased their spending on take-out services since the pandemic began since contactless services through e-hailing apps are widely demanded since the pandemic began.

$H7_0$: There is no significant change on online spending behavior on branded products before and during the pandemic.

$H7_1$: There is a significant change on online spending behavior on branded products before and during the pandemic.

According to Achille and Zipser (2020), there was a decrease in profit in the luxury industry as they failed to react quickly to the Covid-19 pandemic. Thus, there was a decrease in spending on branded or luxury products among consumers. Besides, Gu et al. (2021) discovered that online spending on luxury goods decreased since the pandemic began.

$H8_0$: There is no significant change on online spending behavior on groceries before and during the pandemic.

$H8_1$: There is a significant change on online spending behavior on groceries before and during the pandemic.

According to Barua (2021), there was an increase in spending on groceries during the pandemic as most people were encouraged to cook from home rather than eat in a restaurant. Grashuis et al. (2020), has also discovered the same things with an increase of spending on groceries by purchasing through online.

$H9_0$: There is no significant change on online spending behavior on clothes before and during the pandemic.

$H9_1$: There is a significant change on online spending behavior on clothes before and during the pandemic.

Based on the research done by Gu et al. (2021), the authors found that online spending on fashion products which includes clothing decrease by 5.2% since the beginning of the pandemic.

$H10_0$: There is no significant change on online spending behavior on health care products before and during the pandemic.

$H10_1$: There is a significant change on online spending behavior on health care products before and during the pandemic.

According to Taylor (2020), at the start of the pandemic, there was a rise in sales due to the high need for health care products such as sanitizers. Thus, online sellers raised the price of the product. Zhao et al. (2020) found that consumers boost their spending by 5% in regions where masks are mandatory. Next, there was also a growth in demand which resulted in the rise in sales for supplements as consumers want to improve their immune system to avoid themselves from contracting the Covid-19 virus (Lordan, 2021). It was also reported that most consumers of supplements were increasing their purchases online instead of buying the product in physical stores (Malthaputri & Sunitiyoso, 2021).

2.5 Conclusion

To sum up, Chapter 2 contains the summary of literature reviews, fundamental theories, proposed theoretical framework, and hypothesis of this research.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter would be introducing appropriate techniques and methodologies that would be used to analyze the independent and dependent variables.

3.1 Research Design

The framework of the research method and technique selected by a researcher is called research design. This research design allows the researchers to hone the research methods suitable for the subject and prepare for the success of the research (QuestionPro, n.d.). The research aims to understand how family income, price elasticity, financial literacy, and peer influence, affect the spending behavior of Universiti Tunku Abdul Rahman (UTAR) undergraduate students.

3.1.1 Quantitative Research

In our study, quantitative research is chosen for the exploratory data analysis. In social science, quantitative research is the dominant research framework. It refers to a set of techniques, strategies, and assumptions used to study social, emotional, and economic operations by assessment of digital models. Quantitative research collects a series of digital data. Some numerical data are quantitative in nature, in other cases, numerical formats are enforced. The gathering of quantitative data enables academics to execute a simple assessment, summarize data, show relationships between data, or compare aggregated data. Qualitative research includes gathering and analyzing information through interviews or ethnography (Bhandari, 2020).

3.1.2 Descriptive Research

To describe our study 'Spending behavior of UTAR undergraduate students', we decide to adopt descriptive method. According to Blog (2020), descriptive research is considered to be a type of research that depicts the population and condition under research. Descriptive research design can use multiple research methods to investigate one or more variables. Contrasting to experimental research, researchers do not have the ability to control all variables. Nevertheless, they can examine and evaluate them. Survey research allows to collect large amounts of data and can analyze frequencies, averages, and patterns (McCombes, 2019).

3.2 Data Collection Method

There are two approaches for data collection, through either primary data or secondary data. Primary data collection refers to those first-hand data collected by the researchers to achieve the study's objectives. It includes an interview, survey, observation, and many more. On the other hand, the secondary data such as findings on literature reviews refer to those results discovered by the previous researcher. A researcher with mutual research objectives could get a new insight by using secondary data.

3.2.1 Primary Data

Primary data collection has been applied in this research. The researchers wish to further explore the relationship between the four pre-determined factors (family income, price elasticity, financial literacy, and peer influence) and student's spending behavior through conducting an online survey. One of the reasons for utilizing a questionnaire is because its comparability and the results are easier to be visualized by utilizing spreadsheet software, graphs, and charts.

3.3 Sampling Design

3.3.1 Target Population

A target population is a set of units or a group of individuals that the researcher intends to study (Whaley, n.d.). Besides, according to McLeod (2019), a target population is the destination where the sample will be drawn from. To achieve our research objectives of exploring the student's spending behaviour, the target population of this study is constituted by all registered undergraduate students in UTAR. According to the Division of Admissions and Credit Evaluation of UTAR, there are around 16,800 undergraduate students in UTAR.

3.3.2 Sampling Method

There are two board categories as an option to transform the target population into a sample, which is the probability sampling method and the non-probability sampling method. A probability sampling shows that everyone within the targeted population has a fair likelihood to be part of the sample of the study. Whereas the latter mentioned that every individual has no equal chance of being chosen. Meanwhile, it allows the researcher to select data more easily and is less time-consuming (McCombes, 2019). In this study, the researchers have applied the convenience sampling method which is also a

non-probability method in sampling. Under this method, the samples are randomly chosen based on the researcher's convenience such as a location that is convenient for the researcher to collect responses; yet there will be no equal chance for the undergraduate students to be chosen. The reason for applying convenience sampling is because it requires lesser time and cost to collect data as the samples are readily available.

3.3.3 Sample Size

A sample size indicates the number of individuals that should be observed and thus assist the researcher in making inferences about the population through the data collection method that has been chosen. According to Zamboni (2018), a small sample size could cause the result of the study unreliable whereas if the sample size is too big, it requires more time and resources to be analyzed. Thus, to develop an optimal sample size, the size of the population, margin of error, and confident interval must be fully considered (Dobronte, 2011). The calculated sample size is 376 respondents.

$$Sample\ Size = \frac{\frac{z^2 \times p\ (1-p)}{e^2}}{1 + (\frac{z^2 \times p\ (1-p)}{e^2\ N})}$$

Where:

- z= z-score (95% confidence level)

- p= Population proportion (assuming 0.5, where the sample size will be maximized)
- e= Margin error of 5%
- N= Population size= 16,800 undergraduate students in UTAR

$$Sample\ Size = \frac{\frac{1.96^2 \times 0.5\ (1-0.5)}{0.05^2}}{1 + (\frac{1.96^2 \times 0.5\ (1-0.5)}{0.05^2\ (16{,}800)})}$$

$$= \mathbf{375.57 \approx 376}\ \boldsymbol{respondents}$$

3.4 Research Instrument

In this study, we chose to use questionnaires to obtain data from the target participants. These questions are associated with our topic in the research. The questions conducted are used to examine the effects of the variables of this research.The questionnaire uses measurement scales, for example, the Likert-Five Scale. The main reasons for using questionnaire surveys are quick and convenient, and because of the large sampling frame of this study, questionnaire surveys are the first choice. Google form links would be created for the questionnaire and to be sent to course mates, friends, or any undergraduate student in UTAR.

3.4.1 Research Design

In this survey, it is separated into four sections. Section A is to find out demographic profile of participants, Section B includes independent variables which are questions that associated to factors affecting pupils' spending behaviors, and Section C includes the dependent variables which is spending behavior during the pandemic. Lastly, Section D includes the online spending behavior of the participants before and during the pandemic.

In section A, we design questions about the demographic profiles of the respondents, for instance age, sex, race, present year of study, campus, faculty, parent's monthly income, monthly allowance, and part-time job. Through this section, the demographic information of the interviewee can be obtained more accurately.

For Section B, involves the measurement of four variables that impact the behavior of spending among undergraduate pupils. These four factors are family income, price elasticity, peer influence, and financial literacy.

Section C is asking respondents the amount they spend per month before the pandemic. It also asks students on how much they spend per month during the pandemic which is the dependent variable of the study.

Last, Section D's question is to solicit the opinions and viewpoints of the respondents on the consumption behavior of undergraduate students before

and during the COVID-19 pandemic to seek whether their online spending behavior change within the period in the categories of leisure, ordering food from e-hailing apps, branded products, groceries, clothes, and health care products.

Table 3.1:

Questionnaire Design

Section	**Measure**	**No. of Items**	**Scale Measurement**	**Sources**
A	Demographic factors	8	Nominal Scale	Self-Constructed
B Question 1	Family Income	1	Ratio Scale	
Question 2	Price Elasticity	6	Ordinal Scale/ Likert- Five Scale	Adapted from Pärson & Vancic. (2020)
Question 3	Peer Influence	6	Ordinal Scale/ Likert- Five Scale	Adapted from Makgosa & Mohube. (2007); Astous et al. (1990).

Question 4	Financial Literacy	8	Multiple Choice	Adapted from (Atkinson & Messy, 2012).
C	Spending behavior before and during the pandemic	2	Ratio Scale	Self-Constructed
D	Changes in online Spending Behavior	6		

3.4.2 Pilot Test

A pilot test is a small study used to evaluate the proposed study before the full performance. The main purpose is to evaluate the viability of the study. It can also be applied to approximate the cost of bigger studies and the necessary sample size (Teijlingen & Hundley, 2002). Connelly (2008) stated that the present literature specifies that the pilot samples ought to be 10% of the predicted sample of the larger population study. In addition, Isaac and

Michael (1995), and Hill (1998) recommend ten to thirty respondents for the pilot test. In this research, 30 questionnaires are required for the pilot assessment as the total respondent for this study is 376 respondents.

3.5 Construct measurement

Construct measurement is known as an approval for quantifying scale instruments that are utilized and standardize by the theoretical idea that was implemented. At the same time, it is associated with data analysis emerging from measurement techniques (Cook & Campbell, 1979).

The spending behavior of UTAR undergraduate students is studied by using 4 variables, which are family income, price elasticity, financial literacy, and peer influence. This research studies the spending behavior of UTAR undergraduate students and it involves 4 independent variables which are family income, price elasticity, financial literacy, and peer influence. This study uses ordinal scale, Likert-Five scale, and nominal scale as a measurement.

3.5.1 Ordinal Scale

Ordinal scale considers the rank and order of a scale. This scale arranges the observations based on the interest of measurement by numbering an observation to a specific class. Ordinal scale is often considered as a greater measurement tool as compared to nominal scale due to its order and rank (Gavin, 1996).

This research is using ordinal scale in its independent variable statements in the form of Likert-Five scale.

3.5.2 Likert-Five Scale

The Likert Scale is considered as the most used measurement tool in studies regarding social science (Joshi et al., 2015). The scale determines the level of agreeableness in a certain statement in a survey or questionnaire. The categories can go up from 5 to 9 in the Likert scale, most researchers often choose to use Likert-Five scale. Nevertheless, most psychometricians recommend using Likert-Seven or Likert- Nine Scale (Pimentel, 2010).

Likert-Five scale permits to use of both kinds of measurements which are positive and negative measurements towards a particular statement with neutral response allowed at the same time. Due to this, Likert-Five scale is a suitable measurement for our research (Pimentel, 2010). In this research, Likert-Five scale would be used to determine the level of agreeableness in the variables which as price elasticity and peer influence. The format that would be used is "1- Strongly Disagree (SD), 2- Disagree (D), 3- Neutral (N), 4- Agree (A), and 5- Strongly Agree (SA)"

3.5.3 Nominal Scale

Nominal scale is deemed as a measurement that has no rank and order, unlike Ordinal scale. Nominal scale is considered as a weaker scale of measurement as compared to ordinal scale because it cannot be summed up or subtracted as it is not ordered and ranked (Gavin, 1996). Nominal scale typically has non-numerical variables which means that the quantitative variable has no value whatsoever (Stevens, 1946).

The nominal scale that was used in this study are mostly in the demographic parts of the questionnaire such as gender, ethnicity, campus, and faculty. Other than that, yes or no questions were also used as it is also considered as nominal scale.

3.5.4 Ratio Scale

A ratio scale can be specified as a scale that has arrangement, intervals and can be recognized as particular values. For instance, a ratio scale can be determined mathematically, and values can be in terms of Celsius, kilometers, kilograms, and more. One thing that is distinct from ratio scales compared to the other scales of measurement is that it can contain the value of zero (Moessinger, 2017).

For example, the ratio scale is used on questions such as asking respondents how much their spending is before and during the pandemic and their parent's

monthly income. This is because currency or money can be in the form of zero, which means defines as a lack of money.

3.6 Data Processing

Data processing is a process of transforming the raw data collected into meaningful and readable information. For instance, raw data could be transformed into information that could be easier to be understood with the assistance of graphs and tables. Besides, data processing is also known as data reduction whereby the unnecessary or irrelevant data must be eliminated. This could assist the researcher to place the data collected in a clearer picture (Planning Tank, 2021). Also, interpretation of results and hypothesis testing could be more reliable in data analysis.

3.6.1 Questionnaire Review

A good questionnaire should include easy-to-understand questions and objectives-driven questions. On the other hand, a quality questionnaire not only directly assists the researchers to achieve their research objectives but also could minimize the problem of some questions being left unanswered.

3.6.2 Data Editing

In data editing, the data collected must be scrutinized to determine whether there are any errors and omissions made by the researchers or respondents when designing or completing the questionnaire. At the same time, the researchers are required to ensure the data collected to be error-free before entering the data into the system. Case in point, if one of the respondents omitted one question in the questionnaire, the researcher could revise the omission based on the average answer obtained from other respondents. Or else, the researcher could exclude that respondent in the following data processing. Hence, the researcher could assume the data after correction to be logical, consistent, and legible (Shukla, 2018).

3.6.3 Coding of Data

It implies to the usage of symbols or numbers to represent a particular category of response or data. For example, the researchers of this study have applied the Likert Five Scale to represent different response categories The main reason for categorizing the response in this way is because the responses collected could be easier to evaluate with the assistance of tables and charts when comes to analysis.

3.6.4 Tabulation

Tabulation is a significant and useful step in data processing, as it could assist the researchers to summarize the raw data collected for further analysis. In the meantime, outliers or unusual responses could be easily detected by using tabulation (Shukla, 2018). Besides, according to Bajpai and Prakash (n.d.), tabulation is essential because it allows researchers to make a comparison according to the data that was arranged. Then again, data arrangement could be done through hand tabulation. Or else, the researcher could utilize software such as a spreadsheet if there are many topics incorporated in the questionnaire. The researchers have sought help with a spreadsheet when comes to summarizing the raw data, as it could display a clearer picture of the total responses received with less timewasting.

3.6.5 Graphical Presentation

Instead of merely employ tabulation in this study, the researchers of this study decide to include graphical presentations such as graphs and charts. The function of graphical presentation is somewhat similar to tabulation where both could assist the researcher to summarize the raw data received. However, the researchers believe that graphical presentation could demonstrate the data more creatively. For example, it could display the frequency distribution as well as provide the proportion of multiple categories.

3.6.6 Data Cleaning

Data cleaning requires researcher consistent checking to make sure the information has been entered into the system. The error made might be due to the carelessness of the data entry clerk or the respondent. When there is a mistake of the respondent has been detected, the researcher could contact the respondent for further clarification. If it is impossible to do so, the researcher could choose to remove the particular response from the study. Data collected must be checked repeatedly until the data was "clean" before conducting an analysis (Singleton and Straits, 2017).

3.7 Proposed Data Analysis Tool

The objective of data analysis to is gather data from the questionnaires, assess and to come up with a reasoning. Data analysis could provide assistance to the researchers and readers to have a better insight on a certain information gathered (Chapman et al., 2001). The data collected from the questionnaires would be analyzed through the latest version of Statistical Package for Social Science (SPSS). A total of 376 questionnaires would be sent out to UTAR undergraduate students from both Kampar and Sungai Long Campus.

3.7.1 Descriptive Analysis

Descriptive analysis can often be defined as simplification of the data analysis. By doing so it would help a researcher recognize a pattern that is available in the data, sometimes it may also identify an unrecognized pattern as well (Loeb et al., 2017).

Descriptive statistics typically gives a summary based on a sample data set through tables and graphs. It shows the most frequent pattern that was exhibited in the data through mean, median, and mode (Sharma, 2019). Descriptive analysis is useful in the sense that it could produce a better view of the results from the questionnaire which would be helpful to the researchers and the reader as the data would be in a simpler form compared to the raw data collected.

3.7.2 Scale Measurement

3.7.2.1 Reliability Analysis

The objective of a reliability analysis is to take uncertainties into consideration in a thorough method when it comes to the examination of the problem. The Likelihood of failure and reliability index helps to evaluate the risks that are involved when analyzing a set of data and it also helps assess the implications of a malfunction (Bastidas-Arteaga & Soubra, 2014). According to Bonett & Wright (2014), Cronbach's

alpha can be defined as a reliability of internal consistency when it comes to measuring a number of questionnaires.

Based on the authors Bryman and Cramer (1997), a reliability coefficient value is usually between the value of 1 and 0. The value that is closer to 1 is considered as a trustworthy measure whereas, the value closer to 0 is considered as an untrustworthy measure.

Before running the pilot test, a total of 30 questionnaires would be sent to the respondents. After going through the pilot test using the Cronbach's alpha reliability, the remaining questionnaires would be distributed to the respondents. The table below shows the coefficient range for the Cronbach's alpha reliability (Hair et al., 2003).

Table 3.2:

Cronbach's Alpha Size of Coefficient.

Alpha Coefficient Range	**Association of Strength**
Less than 0.6	Poor
0.6 to 0.7	Moderate
0.7 to 0.8	Good
0.8 to 0.9	Very Good
0.9 and above	Excellent

3.7.3 Inferential Analysis

3.7.3.1 Pearson's Correlation Analysis

The Pearson Correlation shows the linear relationship between two variables. The correlation between variables is an indicator to determine the degree of correlation amongst the variables (The Pearson's Correlation, n.d.). According to Nettleton (2014), the Pearson's correlation method is the most common method used for numeric variables, it assigns a value between-1 and 1, if the coefficient value is 0 means no correlation, 1 means perfect positive correlation, and -1 means perfect negative correlation. For instance, a correlation value of 0.5 between two variables indicates a significant positive correlation between the two variables.

Equation 3.1:

$$r = \frac{\sum(x - m_x)(y - m_y)}{\sqrt{\sum(x - m_x)^2 \ \sum\left(y - m_y\right)^2}}$$

Where,

m_x = means of x variables

m_y = means of y variables

Table 3.3

Explanation of Value of Correlation Coefficient

Value of Correlation Coefficient	Explanation
± 0.90 to ± 1.00	Perfect positive (negative) correlation
± 0.70 to ± 0.89	Strong positive (negative) correlation
± 0.50 to ± 0.69	Medium positive (negative) correlation
± 0.30 to ± 0.49	Weak positive (negative) correlation
± 0.01 to ± 0.29	Little if any correlation
0.00	No correlation

3.7.3.2 Multiple Regression Analysis

This test can foresee the value of the dependent variable and determine the relationship amongst the variables especially on studies which have multiple independent variables which are more than two. In this analysis, the predicted value also called the dependent variable, because the result or value of it depends on the behavior of the additional variables. The value of the independent variable is identified from samples (Nathans et al., 2012).

Equation 3.2:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \ldots \beta_k X_k$$

Multiple Linear Regression for this study

$$SB = \beta_0 + \beta_1 PE + \beta_2 PI + \beta_3 FI + \beta_4 FL$$

Where,

SB = Spending behavior of UTAR undergraduate students

β_0 = Constant

PE = Price elasticity

PI = Peer influence

FI = Family income

FL = Financial Literacy

3.7.3.3 Ordinary Least Square Regression

This particular test is known to be a very straightforward analysis where it is commonly used to evaluate the difference between variables. It usually helps to analyze whether the variables have any significant effect on each other. Ordinary Least Square measures the relationship between the variables by reducing the total of squares in the disparity of the variables that are set up as a straight line (Burton, 2020). Thus, Ordinary Least Square Regression would be used to analyze whether there are any significant changes in the spending behavior of the students before and during the pandemic.

Equation 3.3:

$$Y = \beta_0 + \beta_1 X_i$$

Where,

Y = Spending per month online (on different categories) **before** the pandemic

β_0 = Constant

β_1 = Coefficient of X_1

X_1 = Spending per month online (on different categories) **during** the pandemic

*Different categories: leisure, order food from e-hailing apps, branded products, groceries, clothes, and health care products

3.7.3.4 Paired T-Test

This analysis has been performed to measure whether the mean differences of the paired observations are different from zero (Kent State University, 2022). In other words, the researchers targeted to examine whether there is a significant change between the spending behaviour of the same group of respondents before and during the pandemic in various categories. The degree of freedom (df) of 375 and confidence interval of 95% have been used in conducting the paired t-test.

Equation 3.4:

$$t = \frac{\sum d}{\sqrt{\frac{n(\sum d^2) - (\sum d)^2}{n-1}}}$$

Where,

$\sum d$ = sum of the differences

3.7.3.5 Multicollinearity -Variance Inflation Factor (VIF)

Multicollinearity is an econometric problem where the independent variables in the regression are highly correlated. In other words, an independent variable can be predicted from another independent variable. The problem should be addressed since it could affect the significance of the independent variables to the study and cause the analysis less reliable. The researchers could identify the existence of multicollinearity problems in a regression model by examining the tolerance and Variance Inflation Factor (VIF). According to Daoud (2017), a tolerance of less than 0.10 and VIF higher than 5 indicate that there would a multicollinearity issue that exists amongst the independent variables.

3.7.3.6 Autocorrelation -Durbin Watson Test

Autocorrelation is one of the time-series analyses which is used to identify the correlations of the same observations in different time intervals. An autocorrelation problem can be identified though an the Durbin Watson test. According to Kenton (2021), the Durbin Watson statistic usually falls in the range from 0 to 4, where the value of the DW statistic of 2 indicates that there is no autocorrelation exist. On the other hand, DW statistic below 2 refers to a positive autocorrelation whereas DW statistic above 2 suggests that there is a negative autocorrelation.

3.7.3.7 Heteroscedasticity- Breusch-Pagan-Godfrey Test

Heteroscedasticity is a common econometric problem that arises when the residuals do not have a constant variance, and thus lead to unreliable results (Knaub, 2007). A formal test namely Breusch-Pagan-Godfrey has been performed to test the existence of heteroscedasticity problem in this study.

3.8 Conclusion

To sum up, chapter 3 is listing out the methodologies and techniques that would be used in this research

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

The researchers aim towards analyzing respondents' characteristics through descriptive analysis. The total respondents involved are 376 respondents who came from UTAR undergraduates. The results will be displayed in form of tables and charts that show the frequency and percentage of the population sampled.

4.1 Descriptive Analysis of Respondents

4.1.1 Age

Table 4.1:

Age of Participants

Variables		Frequency	Percentage (%)
Age	18 years old	1	.3
	19 years old	14	3.7
	20 years old	48	12.8
	21 years old	161	42.8
	22 years old	84	22.3
	23 years old	49	13.0
	24 years old	13	3.5
	25 years old	6	1.6

The table above which is Table 4.1 demonstrates the age of pupils in terms of percentage and frequency. Pupils who are 21 years old are the main age group which occupied 161 over 376 respondents (42.8%). On the other hand, there is only one respondent who is in the age group of 18 (0.3%). In addition, the second largest age group was 22 years old holding 84 respondents (22.3%) of the total population sampled. This follows by 23 years old, 20 years old, 19 years old, 24 years old, and 25 years old age groups where there were 49

respondents (13%), 48 respondents (12.8%), 14 respondents (3.7%), 13 respondents (3.5%), and 6 respondents (1.6%) involved respectively (See Appendix 4.1).

4.1.2 Gender

Table 4.2:

Gender of Respondents

Variables		Frequency	Percentage (%)
Gender	Male	138	36.7
	Female	238	63.3

The frequency and percentage of males and females involved in this study has been shown in Table 4.2. Based on the table above, more females participated in the survey than males. The researchers obtained 238 responses from females and 138 responses from males, which occupied 63.3% and 36.7% respectively (See Appendix 4.2).

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4.1.3 Ethnicity

Table 4.3:

Ethnicity of Respondents

Variables		Frequency	Percentage (%)
Ethnicity	Chinese	349	92.8
	Malay	3	0.8
	Indian	16	4.3
	Others	8	2.4

Table 4.3 shows different ethnic categories of a response collected from UTAR undergraduate students. There are 349 respondents out of 376 respondents (92.8%) who are Chinese. Following by 3 respondents are Malay (0.8%) and 16 respondents are Indian (4.3%). Also, 8 respondents came from other ethnicities (2.4%) such as Dusun, Myanmar, Punjabi, Siam, and Sikhs (See Appendix 4.3).

4.1.4 Year of Study

Table 4.4: *Year of Study of Respondents*

Variables		Frequency	Percentage (%)
Year of Study	Degree Year 1	27	7.2
	Degree Year 2	93	24.7
	Degree Year 3	193	51.3
	Degree Year 4	59	15.7
	Degree Year 5	4	1.1

Among 376 respondents from the UTAR undergraduates, more than half are degree year 3 students, which possess 193 respondents (51.3%). The second-largest group is from degree year 2 students in UTAR as it occupied 93 responses over 376 responses (24.7%). This was followed by respondents from degree year 4, degree year 1, and degree year 5. Responses obtained are 59 respondents (15.7%), 27 respondents (7.2%), and 4 respondents (1.1%) respectively (See Appendix 4.4).

4.1.5 Campus

Table 4.5

Campus Of Respondent

Variables		Frequency	Percentage (%)
Campus	Kampar	245	65.2
	Sungai Long	131	34.8

Among 376 respondents, 245 (65.2%) were from Kampar campus, while the remaining 131 (34.8%) were from Sungai Long campus, as shown in Table 4.5 (See Appendix 4.5).

4.1.6. Faculty

Table 4.6

Faculty Of Respondent

Variables		Frequency	Percentage (%)
Faculty	FAM	35	9.3
	FAS	12	3.2
	FBF	123	32.7
	FCI	6	1.6
	FEGT	6	1.6
	FICT	17	4.5
	FMHS	15	4.0
	FSC	89	23.7
	LKC FES	73	19.4

Among these 376 respondents, the majority of them are from FBF, which occupied 123 respondents (32.7%). The second largest group is from FSC, 89 respondents (23.7%). The third largest group was from LCK FES, where there were 73 respondents (19.4%). On the other hand, FEGT and FICT have the same least respondents, there were only 6 respondents (1.6%) (See Appendix 4.6).

4.1.7 Allowance Received from Parents per Month

Table 4.7

Allowance Respondents Receive from Their Parents Per Month

Variables		Frequency	Percentage (%)
Allowances received from parents per month	Below RM 500	174	46.3
	RM 501 to RM 1,000	161	42.8
	RM 1,001 to RM 1,500	31	8.2
	RM 1,501 to RM 2,000	5	1.3
	RM 2,001 to RM 2,500	2	.5
	More than RM 3,001	3	.8

Table 4.7 shows how much allowance does respondents receive from their parents per month. The highest range of allowance they receive per month is below RM500 which is 174 respondents (46.3%). The second-highest range is between RM 501 to RM 1000 with 161 respondents (42.8%) respondents. Besides, the third-largest range is between RM 1001 to RM 1500 with 31 respondents (8.2%). Follows by RM1501 to RM2000, RM2001 to RM2500, and above RM3001 where there were 5 respondents (1.3%), 2 respondents (0.5%), and 3 respondents (0.8%) involved respectively (See Appendix 4.7).

4.1.8 Whether if Respondents are Working Part Time or Not

Table 4.8:

Whether if Respondents are Working Part Time or Not

Variables		Frequency	Percentage
Part Time	No	307	81.6
	Yes	69	18.4

Furthermore, there are 307 respondents not working part-time during their studies which has a percentage of 81.6%. Only a minority of respondents work part-time which is amounted to 69 (18.4%) respondents (See Appendix 4.8).

4.1.9 Part Time Salary of Respondents

Table 4.9:

Part Time Salary of Respondents

Variables		Frequency	Percentage
Part Time Salary	RM 100 to RM 500	30	43.48
	RM 501 to RM 1000	21	30.43
	RM 1001 to RM 1500	11	15.94
	RM 1501 to RM 2000	1	1.45
	More than RM 2001	6	8.70

Out of 69 respondents who have part-time jobs, the highest range of part-time salary is between RM 1000 to RM 500 which is amounted to 30 (0.4%) respondents. The second-highest range of part-time salary is between RM 501 to RM 1000 with 21 (0.3%) respondents. Besides, the third-largest range is between RM 1001 to RM 1500 with 11 (0.2%) respondents. However, only 1 respondent has a part-time salary between the range of RM 1501 to RM 2000 which has the lowest percentage of 0.01% (See Appendix 4.9).

4.1.10 Family's Monthly Income

Table 4.10:

Family's Monthly Income of Respondents

Variables		Frequency	Percentage
Family or Parent's Monthly Income	Less than RM 2,000	39	10.4
	RM 2,001 to RM 4,000	135	35.9
	RM 4,001 to RM 6,000	96	25.5
	RM 6,001 to RM 8,000	53	14.1
	More than RM 8,001	53	14.1

Other than that, there are 135 respondents whose family or parents' monthly income is between the range of RM 2,001 to RM 4,000 which has the highest percentage of 35.9%. The second-largest range for parents' monthly income is between RM 4,001 to RM 6,000 with 96 (25.5%) respondents. The third-largest range is shared between 2 ranges which are RM 6,001 to RM 8,001 and more than RM 8,001 with 53 (14.1%) respondents respectively. In contrast, only 39 (10.4%) respondents' parent's monthly income is less than RM 2000 which is the lowest amount (See Appendix 4.10).

4.1.11 Financial Literacy

Table 4.11:

Levels of Financial Literacy in Respondents

Marks	Financial Literacy Level	Frequency	Percentage (%)
1-3	Low	5	1.3
4-5	Moderate	49	13.1
6-8	High	322	85.6

The rank of financial literacy among participants is shown in table 4.11. The rank of financial literacy among participants is displayed in table 4.11. Respondents with three or fewer accurate answers are believed to have a low degree of financial literacy. Pupils that got four or five accurate responses are considered to be on a moderate rank. Respondents with six accurate responses or more are assumed to possess a high degree of financial literacy (Atkinson & Messy, 2012). 322 respondents (85.6%) out of 376 are considered to have a high degree of knowledge of financial literacy and 49 pupils (13.1%) fall into the moderate category. Whereas 5 pupils (1.3%) have a poor degree of knowledge in terms of financial literacy. It is safe to conclude that, most undergraduates in the research possess a high degree of literacy in finance (See Appendix 4.11).

4.1.12 Spending per Month Before the Pandemic

Table 4.12:

Spending Per Month Before Pandemic of Respondents

Variables		Frequency	Percentage (%)
Monthly Spending before pandemic	Below RM 200	77	20.5
	RM 201 to RM 400	96	25.5
	RM 401 to RM 600	71	18.9
	RM 601 to RM 800	62	16.5
	RM 801 to RM 1,000	52	13.8
	RM 1,001 to RM 1,200	9	2.4
	RM 1,201 to RM 1400	6	1.6
	More than RM 1,401	3	.8

Table 4.12 illustrates the frequency of monthly spending and the percentage of respondents before the pandemic. Majority of the pupils spent RM201 to RM400 each month before the pandemic, with 96 pupils (25.5%). Respondents in the second-largest range spent per month before the pandemic was below RM200 which occupied 77 (20.5%) over 376 respondents. As the range of amounts increases, the number of respondents decreases. This follows by RM401 to RM 600, RM601 to RM800, RM801 to RM 1000,

RM1001 to RM1200, and RM1201 to RM1400 where there were 71 respondents (18.9%), 62 respondents (16.5%), 52 respondents (13.8%), 9 respondents (2.4%), and 6 respondents (1.6%) involved respectively. What's more, three pupils (0.8%) has an expenses of RM 1401 or higher in a month (see Appendix 4.12).

4.1.13 Spending per Month During the Pandemic

Table 4.13:

Spending Per Month During the Pandemic of Respondents

Variables		Frequency	Percentage
Monthly Spending during pandemic	Below RM 200	165	43.9
	RM 201 to RM 400	103	27.4
	RM 401 to RM 600	53	14.1
	RM 601 to RM 800	22	5.9
	RM 801 to RM 1,000	18	4.8
	RM 1,001 to RM 1,200	9	2.4
	RM 1,201 to RM 1400	3	.8
	More than RM 1,401	3	.8

Most of the respondents spend below RM 200 per month during the pandemic. It has the highest number of respondents which is 165 (43.9%). The second-largest range of monthly spending during the pandemic is between RM 201 to RM 400 with 103 (27.4%) respondents. Whereas the third largest range is between RM 401 to RM 600 with 53 (14.1%) respondents. On the other hand, only 3 respondents spend between the ranges of RM 1,201 to RM 1400 and more than RM 1,401 per month which has the lowest percentage of 0.8% (See Appendix 4.13).

4.1.14 Changes in Online Spending Behavior Before and During the Pandemic in Different Categories

4.1.14.1 Changes of Spending Behavior on Leisure

4.1.14.1.1 Changes of Spending Behavior on Leisure before the pandemic

Table 4.14:

Spending Per Month Online on Leisure Before The Pandemic

Variables		Frequency	Percentage (%)
Spending per month online on leisure before the pandemic	RM 0	163	43.4
	RM 1 to RM50	105	27.9
	RM51 to RM 100	65	17.3
	RM101 to RM200	32	8.5
	RM201 to RM 300	4	1.1
	RM 301 to RM 400	2	.5
	RM 401 to RM 500	1	.3
	RM 501 and above	4	1.1

According to the table 4.14, almost half of the respondents (of 43.4%) does not spend any on leisure online before the pandemic. Besides, there are 105 respondents (27.9%) who spent RM1 to RM50 on leisure before the pandemic. On the other hand, 65 respondents (of 17.3%) and 32 respondents (of 8.5%) spent RM51 to RM100 and RM101 to RM200 per month on online leisure activity before the pandemic, respectively. 4 respondents (of 1.1%) spent between the range of RM201 to RM300 and 4 respondents (of 1.1%) spent RM501 and above on leisure online before the pandemic. Next, there are only 2 respondents (of 0.5%) and 1 respondent (of 0.3%) who spent RM301 to RM400 and RM401 to RM500 on online leisure before the pandemic, respectively (See Appendix 4.14).

4.1.14.1.2 Changes of Spending Behavior on Leisure during the pandemic

Table 4.15:

Spending Per Month Online on Leisure During The Pandemic

Variables		Frequency	Percentage (%)
Spending per month online on leisure during the pandemic	RM 0	142	37.8
	RM 1 to RM50	128	34.0
	RM51 to RM 100	58	15.4
	RM101 to RM200	31	8.2
	RM201 to RM 300	10	2.7
	RM 301 to RM 400	3	.8
	RM 401 to RM 500	1	.3
	RM 501 and above	3	.8

During the pandemic, there are 142 respondents (of 34.8%) who did not spend any online for leisure. Moreover, an increasing number of respondents (from 27.9% to 34%) spent RM1 to RM50 on leisure activity online. Besides, there are 58 respondents (of 15.4%) and 31 respondents (of 8.2%) who spent RM51 to RM100 and RM101 to RM200. 10 of the respondents spent RM201 to RM300 online for leisure during

the pandemic, which occupied 2.7%. Meanwhile, 3 respondents (of 0.8%) spent between the range of RM301 to RM400 and 3 respondents (of 0.8%) spent RM501 and above. Only 1 respondent (of 0.1%) spent RM401 to RM500 on leisure activity online (See Appendix 4.15).

4.1.14.2 Changes of Spending Behavior on Ordering Food From E-Hailing Apps

4.1.14.2.1 Spending per month online on ordering food from e-hailing apps before the pandemic

Table 4.16:

Spending Per Month on Ordering Food From E-Hailing Apps Before The Pandemic

Variables		Frequency	Percentage (%)
Spending per month on ordering food from e-hailing apps before the pandemic	RM 0	94	25.0
	RM 1 to RM50	156	41.5
	RM51 to RM 100	72	19.1
	RM101 to RM200	34	9.0
	RM201 to RM 300	13	3.5
	RM 301 to RM 400	3	.8
	RM 401 to RM 500	2	.5
	RM 501 and above	2	.5

According to the table 4.16, the majority spent RM1 to RM50 on ordering food from e-hailing apps before the pandemic, which possess 156 respondents (41.5%). 94 respondents (of

25%) did not spend any, and 72 respondents (of 19.1%) spent between RM51 to RM100. On the other hand, there are 34 respondents (of 9%) and 13 respondents (of 3.5%) who spent RM101 to RM200 and RM201 to RM300 on ordering food from e-hailing apps before the pandemic, respectively. At the same time, 3 respondents (of 0.8%) spent RM301 to RM400. Also, only 2 respondents (of 0.5%) spent between the range of RM401 to RM500 and 2 respondents (of 0.5%) spent RM501 and above, respectively (See Appendix 4.16).

4.1.14.2.2 Spending per month online on ordering food from e-hailing apps during the pandemic

Table 4.17:

Spending Per Month on Ordering Food From E-Hailing Apps During The Pandemic

Variables		Frequency	Percentage (%)
Spending per month on ordering food from e-hailing apps during the pandemic	RM 0	71	18.9
	RM 1 to RM50	103	27.4
	RM51 to RM 100	92	24.5
	RM101 to RM200	70	18.6
	RM201 to RM 300	25	6.6
	RM 301 to RM 400	8	2.1
	RM 401 to RM 500	2	.5
	RM 501 and above	5	1.3

Based on the table 4.17, spending per month on ordering food from e-hailing apps during the pandemic was increasing. Firstly, there is lesser respondent who did not spend any, which possess 71 respondents (of 18.9%) compared to before the pandemic. Similarly, most of the respondents (of 27.4%) spent between RM1 to RM50 on ordering food online. The second-largest range of spending is between RM51 to RM100, which

amounted to 92 respondents (of 24.5%). Next, there are 70 respondents (of 18.6%) and 25 respondents (of 6.6%) who spent RM101 to RM200 and RM201 to RM300 on ordering food from e-hailing apps during the pandemic. Besides, a rising number of respondents spent between RM301 to RM400, from 3 respondents (of 0.8%) before the pandemic to 8 respondents (of 2.1%) during the pandemic. In addition, there are only 2 respondents and 5 respondents who spent RM401 to RM500 and RM501 and above on ordering food online during the pandemic, respectively (See Appendix 4.17).

4.1.14.3 Changes of Spending Behavior on Branded Products

4.1.14.3.1 Spending per month online on branded products before the pandemic

Table 4.18:

Spending Per Month Online on Branded Products Before The Pandemic

Variables		Frequency	Percentage (%)
Spending per month online on branded products before the pandemic	RM 0	159	42.3
	RM 1 to RM50	76	20.2
	RM51 to RM 100	61	16.2
	RM101 to RM200	48	12.8
	RM201 to RM 300	16	4.3
	RM 301 to RM 400	4	1.1
	RM 401 to RM 500	4	1.1
	RM 501 to RM 600	3	.8
	RM 601 and above	5	1.3

Before the pandemic, the majority does not spend on branded products online, which occupied 42.3%. 76 respondents (20.2%) and 61 respondents (16.2%) spent between RM1 to RM50 and RM51 to RM100, respectively. Furthermore, there are 48 respondents (of 12.8%) who spent between RM101 to RM200, and 16 respondents (of 4.3%) who spent between RM201 to RM300 before the pandemic. Next, 4 respondents (of 1.1%) spent between the range of RM301 to RM400, and 4 respondents (of 1.1%) spent between RM401 to RM500, respectively. In the meantime, only 3 respondents (of 0.8%) and 5 respondents (of 1.3%) spent between RM501 to RM600 and RM601 and above on branded products online before the pandemic (See Appendix 4.18).

4.1.14.3.2 Spending per month online on branded products during the pandemic

Table 4.19:

Spending Per Month Online on Branded Products During The Pandemic

Variables		Frequency	Percentage (%)
Spending per month online on branded products during the pandemic	RM 0	143	38.0
	RM 1 to RM50	73	19.4
	RM51 to RM 100	54	14.4
	RM101 to RM200	65	17.3
	RM201 to RM 300	22	5.9
	RM 301 to RM 400	7	1.9
	RM 401 to RM 500	3	.8
	RM 501 to RM 600	3	.8
	RM 601 and above	6	1.6

There is still a majority who did not spend online for the branded product during the pandemic, which possesses 143 respondents (of 38%). 73 respondents (of 19.4%), 65 respondents (of 17.3%), and 54 respondents (of 14.4%) spent between the range RM1 to RM50, RM101 to RM200, and RM51 to RM100, respectively. Moreover, there is an

increasing number of respondents who spent between RM201 to RM300 and RM301 to RM400 on branded products online, from 16 respondents and 4 respondents before the pandemic to 22 respondents and 7 respondents during the pandemic. Also, 3 respondents (of 0.8%) spent between the range of RM401 to RM500, and 3 respondents (of 0.8%) spent RM501 and above, respectively. Lastly, there are 6 respondents (of 1.6%) who spent RM601 and above (See Appendix 4.19).

4.1.14.4 Changes of Spending Behavior on Groceries

4.1.14.4.1 Spending per month online on groceries before the pandemic

Table 4.20

Spending Per Month Online on Groceries Before The Pandemic

Variables		Frequency	Percentage (%)
Spending per month online on groceries before the pandemic	RM 0	163	43.4
	RM 1 to RM50	92	24.5
	RM51 to RM 100	54	14.4
	RM101 to RM200	45	12.0
	RM201 to RM 300	14	3.7
	RM 301 to RM 400	3	0.8
	RM 401 to RM 500	2	0.5
	RM 501 and above	3	0.8

According to the table 4.20, majority of the respondents do not buy groceries online before the pandemic which is amounted to 43.4%. 92 (24.5%) respondents spend between the range of RM 1 to RM 50 and 54 (14.4%) respondents spend between

RM 51 to RM 100 per month on groceries before the pandemic. 3 respondents each spend between the range of RM 301 to RM 400 and RM 501 and above. The range with the least number of respondents is RM 401 to RM 500 which has 2 respondents or 0.5% (See Appendix 4.20).

4.1.14.4.2 Spending per month online on groceries during the pandemic

Table 4.21:

Spending Per Month Online On Groceries During The Pandemic

Variables		Frequency	Percentage (%)
Spending per month online on groceries during the pandemic	RM 0	108	28.7
	RM 1 to RM50	83	22.1
	RM51 to RM 100	82	21.8
	RM101 to RM200	65	17.3
	RM201 to RM 300	24	6.4
	RM 301 to RM 400	5	1.3
	RM 401 to RM 500	3	0.8
	RM 501 and above	6	1.6

According to the illustration in table 4.21, majority of pupils do not spend money online for groceries during the pandemic which is 108 respondents. The ranges of RM 1 to RM 50 have 83 (22.1%) respondents whereas the ranges between RM 51 to RM 100 have 82 (21.8%) respondents. Only 3 respondents spend between the range of RM 401 to RM 500 which is the lowest frequency (See Appendix 4.21).

4.1.14.5 Changes of Spending Behavior on Clothes

4.1.14.5.1 Spending per month online on clothes before the pandemic

Table 4.22:

Spending per month online on clothes before the pandemic

Variables		Frequency	Percentage (%)
Spending per month online on clothes before the pandemic	RM 0	133	35.4
	RM 1 to RM50	93	24.7
	RM51 to RM 100	78	20.7
	RM101 to RM200	47	12.5
	RM201 to RM 300	20	5.3
	RM 301 to RM 400	3	0.8

	RM 401 to RM 500	1	0.3
	RM 501 and above	1	0.3

Before the pandemic, the majority of the respondents which is 133 respondents spend RM 0 online on clothes per month. 93 (24.7%) and 78 (20.7%) respondents spend according to the range of RM 1 to RM50 and RM51 to RM 100 respectively on clothes online per month. However, only 3 respondents spend between the range of RM 401 to RM 500 and above RM 501 which is has the least number of respondents (See Appendix 4.22).

4.1.14.5.2 Spending per month online on clothes during the pandemic

Table 4.23:

Spending Per Month Online on Clothes During The Pandemic

Variables		Frequency	Percentage (%)
Spending per month online on clothes during the pandemic	RM 0	106	28.2
	RM 1 to RM50	89	23.7
	RM51 to RM 100	88	23.4
	RM101 to RM200	61	16.2
	RM201 to RM 300	20	5.3
	RM 301 to RM 400	8	2.1
	RM 401 to RM 500	1	0.3
	RM 501 and above	3	0.8

There are 106 respondents who spend RM 0 on clothes online per month during the pandemic which has the highest frequency. Next, 89 respondents and 88 respondents were between the range of RM 1 to RM50 and RM51 to RM 100 respectively. The lowest frequency is between the range of RM 401 to RM 500 which only has 1 (0.3%) respondent who spend online on clothes per month during the pandemic (See Appendix 4.23).

4.1.14.6 Changes of Spending Behavior on Health Care Products

4.1.14.6.1 Spending per month online on health care products before the pandemic

Table 4.24:

Spending Per Month Online on Health Care Products Before The Pandemic.

Variables		Frequency	Percentage (%)
Spending per month online on health care products before the pandemic. For example, supplements, face masks, sanitizer, and etc.)	RM 0	205	54.5
	RM 1 to RM50	93	24.7
	RM51 to RM 100	46	12.2
	RM101 to RM200	21	5.6
	RM201 to RM 300	4	1.1
	RM 301 to RM 400	6	1.6
	Above RM 401	1	0.3

Before the pandemic, most respondents do not purchase health care products online per month as 205 respondents spend RM 0 which is amount to 54.5%. Besides, 93 respondents spend between the range of RM 1 to RM50, and 46 respondents spend between the range of RM51 to RM 100. Only 1 (0.3%) respondent spend above RM 401 on health care products online

per month which has the lowest frequency (See Appendix 4.24).

4.1.14.6.2 Spending per month online on health care products during the pandemic

Table 4.25:

Spending Per Month Online on Health Care Products During The Pandemic.

Variables		Frequency	Percentage (%)
Spending per month online on health care products during the pandemic. For example, supplements, face masks, sanitizer, and etc.)	RM 0	75	19.9
	RM 1 to RM50	104	27.7
	RM51 to RM 100	113	30.1
	RM101 to RM200	64	17.0
	RM201 to RM 300	12	3.2
	RM 301 to RM 400	6	1.6
	Above RM 401	2	0.5

There are 113 respondents who spend between the range of RM51 to RM 100 on healthcare products online which has the highest frequency. The second highest frequency is 104 respondents who spend between the range of RM 1 to RM50. Besides, 75 respondents do not spend any money per month on health care products online during the pandemic. However, the range with the lowest frequency is RM 401 and more which only has 2 respondents or (0.5%) (See Appendix 4.25).

4.2 Central Tendencies Measurement of Constructs

4.2.1 Price Elasticity

Table 4.26:

Mean and Standard Deviation of Price Elasticity

No.	Statement	N	Mean	Standard Deviation
i	I compare prices whenever I buy a product	376	4.40	0.73
ii	I noticed when there is an increase in price when I buy goods.	376	4.01	0.92
iii	I am upset whenever I miss a discount on a product.	376	3.62	1.04
iv	I make an effort to buy the best quality in a product.	376	4.09	0.76
v	I have a reference price for a particular good. (For example, box tissues should not cost more than RM 10.)	376	3.70	1.06
vi	I find it important that the goods that I buy are cheap.	376	3.65	0.89

Table 4.27:

Mean Items for Price Elasticity

Statements	strongly disagree	disagree	neutral	agree	strongly agree	Mean
i. I compare prices whenever I buy a product	1 (0.3%)	6 (1.6%)	31 (8.2%)	143 (38.0%)	195 (51.9%)	4.40
ii. I noticed when there is an increase in price when I buy goods.	5 (1.3%)	20 (5.3%)	66 (17.6%)	161 (42.8%)	124 (33.0%)	4.01
iii. I am upset whenever I miss a discount on a product.	13 (3.5%)	33 (8.8%)	125 (33.2%)	117 (31.1%)	88 (23.4%)	3.62
iv. I make an effort to buy the best quality in a product.	1 (0.3%)	5 (1.3%)	72 (19.1%)	180 (47.9%)	118 (31.4%)	4.09
v.I have a reference price for a particular good. (For example, box tissues should not cost more than RM 10.)	11 (2.9%)	43 (11.4%)	88 (23.4%)	139 (37.0%)	95 (25.3%)	3.70
vi. I find it important that the goods that I buy are cheap.	2 (0.5%)	30 (8.0%)	133 (35.4%)	142 (37.8%)	69 (18.4%)	3.65

Question I, which has the statement "I compare prices whenever I buy a product," contains the largest mean value at 4.40 which is according to tables 2.26 & 4.27. Question I also possess the smallest amount of standard deviation at 0.73. Furthermore, statement IV possesses the second-largest mean of 4.09, followed by Question II, with the mean value of 4.01. Question V and VI have mean scores of 3.70 and 3.65 accordingly. Nonetheless, the mean score for Question III, with the statement "I am upset whenever I miss a discount on a product," is 3.62 which is the lowest score of mean (See Appendix 4.26).

4.2.2 Peer Influence

Table 4.28:

Mean and Standard Deviation of Peer Influence

No.	Statement	N	Mean	Standard Deviation
i	I always seek advice from my friends before purchasing any luxury products.	376	3.35	1.22
ii	My friend's opinion matters to me the most when it comes to purchasing a product.	376	2.94	1.11
iii	I will buy the products (or brands) that my friends have bought.	376	2.68	1.14
iv	I spend more when I hang out with friends.	376	3.41	1.16
v	My friends influence me to purchase trendy products.	376	2.51	1.13
vi	My friends often ask me to buy things together to get a discount.	376	2.90	1.19

Table 4.29:

Mean Items for Peer Influence

Statements	strongly disagree	disagree	neutral	agree	strongly agree	Mean
i. I always seek advice from my friends before purchasing any luxury products.	36 (9.6%)	59 (15.7%)	86 (22.9%)	127 (33.8%)	68 (18.1%)	3.35
ii. My friend's opinion matters to me the most when it comes to purchasing a product.	44 (11.7%)	85 (22.6%)	126 (33.5%)	93 (24.7%)	28 (7.4%)	2.94
iii. I will buy the products (or brands) that my friends have bought.	69 (18.4%)	94 (25.0%)	124 (33.0%)	67 (17.8%)	22 (5.9%)	2.68
iv. I spend more when I hang out with friends.	29 (7.7%)	51 (13.6%)	101 (26.9%)	127 (33.8%)	68 (18.1%)	3.41
v. My friends influence me to purchase trendy products.	80 (21.3%)	114 (30.3%)	111 (29.5%)	51 (13.6%)	20 (5.3%)	2.51
vi. My friends often ask me to buy things together to get a discount.	62 (16.5%)	72 (19.1%)	110 (29.3%)	104 (27.7%)	28 (7.4%)	2.90

Based on the table 4.28 & 4.29, it shows that the highest mean is 3.41 which is Question IV, "My friends influence me to purchase trendy products.". Question I have a mean of 3.35 which is slightly lower by 0.06 from Question IV. Follow by Question II and VI with a mean value of 2.94 and 2.90 respectively. Question V has the lowest mean

value of 2.51 which is lower than Question III with mean of 2.68. However, Question II has obtained the lowest value of standard deviation of 1.11 while Question I have the highest amount of standard deviation of 1.22. Based on the illustration in table 4.2.2.2, if more participants were to respond on “strongly agree” or “agree” then the higher the mean value will be for that particular statement (See Appendix 4.28 & 4.29).

4.3 Scale Measurement

4.3.1 Reliability Analysis

Table 4.30:

Summary of Cronbach Alpha

Variables	Cronbach Alpha	Number of Items
Price elasticity	0.684	6
Peer Influence	0.829	6

According to the data displayed within table 4.30, Cronbach Alpha values for both variables of price elasticity and peer influence is more than 0.6 which is a good sign as it signifies that the results are reliable. Price elasticity has a Cronbach Alpha value of 0.684 which is considered to be as reliable in moderate terms, However, peer influence has a value of 0.829 and is believed to be an excellent result as it is more reliable compared to price elasticity (See Appendix 4.30). To sum up, all two variables are believed to be reliable, and the constructed measure is retained (Hair et al, 2003).

4.4 Inferential Analysis

4.4.1 Pearson's Correlation Analysis

Table 4.31:

Summary of Pearson's Correlation Analysis

	Independent Variable	N	Pearson's Correlation	
			r	Sig (2-tailed)
Spending behavior	Price Elasticity	376	-0.026	0.612
	Peer Influence	376	0.078	0.132
	Family Income	376	0.105*	0.041
	Financial Literacy	376	-0.026	0.613

*Note: *. Correlation is significant at 0.05 level (2-tailed)*

***. Correlation is significant at 0.01 level (2-tailed)*

The table 4.31 shows the correlations between students' spending and the independent variables, which include price elasticity, peer influence, family income, and financial literacy. The Pearson's coefficients for the independent variables are -0.026, 0.078, 0.105, and -0.026 respectively. A correlation coefficient that consists of values between negative one and one, When the value contains zero, it defines that there is a lack of correlation. A value of

one defines that there is a positive perfect correlation. Whereas negative 1 illustrates perfect negative correlation. Based on the result obtained, all the Pearson's coefficients are close to 0 which indicates that there is a very weak correlation between the student's spending and the independent variables (Nettleton, 2014). Then again, the high p-value of price elasticity, peer influence, and financial literacy suggest that there is no significant correlation exists. However, the p-value for family income (of 0.041) indicates that there is a positive correlation amongst spending behavior and family income, at the significance level of 5% (See Appendix 4.31).

4.4.2 Multiple Linear Regression (MLR)

Table 4.32:

Summary of Multiple Linear Regression

Variables	MLS Result
Constant	345.878 (0.018)*
Price Elasticity	-20.636 (0.451)
Peer Influence	26.771 (0.142)
Family Income	0.013 (0.041)*
Financial Literacy	-5.936 (0.614)

In this study, Multiple Linear Regression (MLR) is used to analyses whether there is significant relationship between the four independent variables (price elasticity, peer elasticity, family income, and financial literacy) and dependent variable (spending behavior during pandemic) which also the constant. Based on the table above shown, family income significant value was 0.041 which is small that 0.05, this indicated that there is a positive significant relationship amongst spending behavior and family income. Hence, we can reject the null hypothesis. However, the remaining three factors significant value was greater than 0.05, indicate that there is no positive significant relationship between

spending behavior and price elasticity, peer influence, and financial literacy. Thus, we do not reject the null hypothesis (See Appendix 4.32).

4.4.3 Ordinary Least Square (OLS)

Table 4.33

Summary of Ordinary Least Square

Variables	OLS Results
(1) Constant	21.866 (0.001)
Spending per month online on leisure before the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)	0.580 (0.001)
(2) Constant	50.017 (0.001)
Spending per month on ordering food from e-hailing apps before the pandemic.	0.664 (0.001)
(3) Constant	35.604 (0.001)
Spending per month online on branded products before the pandemic.	0.660 (0.001)
(4) Constant	38.157 (0.001)

Spending per month online on groceries before the pandemic.	0.787 (0.00)
(5) Constant	36.541 (0.001)
Spending per month online on clothes before the pandemic.	0.632 (0.001)
(6) Constant	51.952 (0.001)
Spending per month online on health care products before the pandemic. (For example, supplements, face mask, sanitizers, and etc.)	0.589 (0.001)

The ordinary Least Square Model is used to analyses on whether there are any significant changes in the online spending behavior on different categories of products before and during the pandemic. Categories include leisure, ordering food from e-hailing apps, on branded products, groceries, clothes, and health care products. Based on the table 4.33 displayed above, all significant value is 0.001, which is smaller than 0.01 thus, rejecting the null hypothesis. To sum up, there is significant change in the online spending behavior of students in leisure, ordering food from e-hailing apps, on branded products, groceries, clothes, and health care products (See Appendix 4.33).

4.4.4 Paired T-Test

4.4.4.1 Spending per month online on leisure before and during the pandemic

Table 4.34:

Spending Per Month Online on Leisure Before And During The Pandemic

	Mean	**Mean Differences**	**t-statistic**	**p-value (Two-sided)**
Spending per month online on leisure before the pandemic. (For example, Netflix, Spotify subscriptions, games, etc.)	44.039	-3.3511	-0.917	0.36
Spending per month online on leisure during the pandemic. (For example, Netflix, Spotify subscriptions, games, etc.)	47.39			

According to the result obtained from SPSS, the p-value of 0.36 is greater than the significance level of 5%, which gives sufficient evidence to reject the alternative hypothesis that stated there is a significant change in spending per month online on leisure before and during the pandemic. The low t-statistic of 0.917 also suggested that there is more similarity exist between spending online for leisure before and during the pandemic. Thus, the null hypothesis is recognized. Thus, no significant change in spending per month online on leisure before and during the pandemic (See Appendix 4.34).

4.4.4.2 Spending per month on ordering food from e-hailing apps before and during the pandemic.

Table 4.35:

Spending Per Month on Ordering Food From E-Hailing Apps Before And During The Pandemic.

	Mean	**Mean Differences**	**t-statistic**	**p-value (Two-sided)**
Spending per month on ordering food from e-hailing apps before the pandemic.	55.165	-31.484	-7.022	<0.001
Spending per month on ordering food from e-hailing apps during the pandemic.	86.649			

According to table demonstrated in 4.35, two-sided p-value are smaller compared to the significance level of 5%, which supports to rejection of the null hypothesis where there is no significant difference between the spending per month on ordering food from e-hailing apps before and during the pandemic. Besides, the high t-score of 7.022 obtained suggested that there is a large difference between the paired observations. Therefore, there is sufficient proof to conclude the existence of significant difference between the spending on ordering

food from e-hailing apps before and during the pandemic (See Appendix 4.35).

4.4.4.3 Spending per month online on branded products before and during the pandemic.

Table 4.36:

Spending Per Month Online on Branded Products Before And During The Pandemic.

	Mean	**Mean Differences**	**t-statistic**	**p-value (Two-sided)**
Spending per month online on branded products before the pandemic.	68.181	-12.3896	-2.388	0.017
Spending per month online on branded products during the pandemic.	80.57			

Based on the table illustrating on 4.36, 0.017 which is the value of p and t-score of 2.388 suggested the existence of significant difference between pupils' spending online on branded products before and during the pandemic, at a significance level of 5%. Moreover, the

negative mean differences of 12.3896 show that the average respondents spent more on branded products during the pandemic compared to before the pandemic. In short, the p-value and t-score provide sufficient evidence to conclude that the spending on branded products online before and during the pandemic is significantly different, with a 95% confidence level (See Appendix 4.36).

4.4.4.4 Spending per month online on groceries before and during the pandemic.

Table 4.37:

Spending Per Month Online on Groceries Before And During The Pandemic.

	Mean	**Mean Differences**	**t-statistic**	**p-value (Two-sided)**
Spending per month online on groceries before the pandemic.	53.612	-26.7394	-6.702	<0.001
Spending per month online on groceries during the pandemic.	80.351			

Again, the small p-value and high t-statistic support the researcher to reject the null hypothesis which stated that there is no significant change between the spending per month online on groceries before and during the pandemic, at a significance level of 5%. The higher the t-score indicates the larger the differences between the two observations. Hence, the researchers are 95% confident that the spending on groceries online before the pandemic differs from spending on groceries online during the pandemic (See Appendix 4.37).

4.4.4.5 Spending per month online on clothes before and during the pandemic.

Table: 4.38

Spending Per Month Online on Clothes Before And During The Pandemic.

	Mean	Mean Differences	t-statistic	p-value (Two-sided)
Spending per month online on clothes before the pandemic.	59.434	-14.6662	-3.512	<0.001
Spending per month online on clothes during the pandemic.	74.1			

According to the table 4.38, the researchers have enough evidence to say that there is a significant change between the spending per month online on clothes before and during the pandemic since the p-value is smaller than the significant level of 5%. Further, the t-score also suggests rejecting the null hypothesis. In addition, the mean difference of -14.662 demonstrates that the respondents tend to spend more on clothes online during the pandemic. To sum up, there is a significant difference between spending online on clothes before and during the pandemic (See Appendix 4.38).

4.4.4.6 Spending per month online on health care products before and during the pandemic.

Table 4.39:

Spending Per Month Online on Health Care Products Before And During The Pandemic

	Mean	**Mean Differences**	**t-statistic**	**p-value (Two-sided)**
Spending per month online on health care products before the pandemic. (For example, supplements, face mask, sanitizers, etc.)	33.406	-38.2074	-10.282	<0.001
Spending per month online on health care products during the pandemic. (For example, supplements, face mask, sanitizers, etc.)	71.613			

Similarly, there is a change in respondents' spending online on health care products before and during the pandemic. This is supported by the

small p-value and high t-statistic (of 10.282), at the significance level of 5%. Apart from that, the high negative mean differences of 38.2074 also show that the respondents are likely to spend more on health care products online during the pandemic compared to before the pandemic. To such a degree, the researchers have adequate proof to conclude the presence of significant change in the spending on health care products online before and during the pandemic (See Appendix 4.39).

4.4.5 Multicollinearity -Variance Inflation Factor (VIF)

Table 4.40:

Summary Results Of Variance Inflation Factor

Model	Tolerance	VIF
(Constant)	-	-
Price elasticity	.976	1.024
Peer Influence	.972	1.028
Family income	.991	1.009
Financial Literacy	.984	1.016

Based on the table 4.40, the high tolerance and low VIF suggest that there is no multicollinearity has been detected in the regression. This is because a tolerance of less than 0.10 and VIF higher than 5 indicate that there is an issue with multicollinearity that exists amongst the independent variables which does not apply to the analysis in table 4.40 (See Appendix 4.40).

4.4.6 Autocorrelation -Durbin Watson Test

Table 4.41:

Summary of Durbin Watson Test

Model	Standard Error of the Estimate	DW Statistic
1	253.1097	1.96

Based on the result obtained from SPSS in table 3.41, the DW statistic of 1.96 (approximately 2.0) shows that there is no autocorrelation problem exist as a Durbin Watson statistic usually falls in the range from 0 to 4, where the value of the DW statistic of 2 indicates that there is no autocorrelation exist. (See Appendix 4.41). On the other hand, DW statistic below 2 refers to a positive autocorrelation whereas DW statistic above 2 suggests that there is a negative autocorrelation (Kenton, 2021)

4.4.7 Heteroscedasticity- Breusch-Pagan-Godfrey Test

Table 4.42

Summary of Breusch-Pagan-Godfrey Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey $\boldsymbol{H_0 = Homoskedasticity}$ $\boldsymbol{H_1 = Heteroskedasticity}$		
F-statistic	**Prob. F (4, 371)**	**Prob. Chi-Square (4)**
2.8081	0.0255	0.026

Based on the table 4.42, the p-value lesser than 0.05 thus, the null hypothesis is rejected in this study and there is a heteroscedasticity problem exists (See Appendix 4.42).

Table 4.43

Summary Of Breusch-Pagan-Godfrey Test for The Reduction Of Heteroscedasticity

Heteroskedasticity Test: Breusch-Pagan-Godfrey $\boldsymbol{H_0 = Homoskedasticity}$ $\boldsymbol{H_1 = Heteroskedasticity}$		
F-statistic	**Prob. F (4, 371)**	**Prob. Chi-Square (4)**
2.1899	0.0696	0.0698

The researchers have tried to reduce the heteroscedasticity through log transformation in this study. After log-transformed of the dependent and independent variables, the heteroscedasticity problem has been reduced, as the p-value of greater than 0.05 suggested not rejecting the null hypothesis, whereby the residuals do have a constant variance (See Appendix 4.43).

4.5 Conclusion

To sum up, chapter 4 is discussing about the analysis that was done such as Pearson's Correlation Analysis, Multiple Linear Regression, Ordinary Least Square, and Paired T-Test by using the data that was collected in the questionnaire.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATION

5.0 Introduction

This chapter will outline the findings and conclusions of this study. This chapter summarizes the statistical analysis and key findings discussed in the previous chapter. Besides, the main discoveries, implications, and shortcomings of this study, and the suggestions for future exploration will be present in this particular section.

5.1 Summary of Statistical Analysis

Nine demographic questions were examined among 376 pupils' profiles. Majority of respondents are 21 years old, which represents 161 respondents or 42.8%. Next, there are 63.3% or 238 female respondents resulted in the descriptive analysis. Out of the 376 respondents, there are 349 or 92.8% of respondents was Chinese. Most of the respondents are currently from Degree Year 1, which involves of 193 or 51.3% of the participants. There are 245 or 65.2% of participants from Kampar. The majority of respondents come from FBF, which represents 123 respondents or 32.7%.

Furthermore, 174 (46.3%) respondents out of 376 respondents received an allowance below RM 500 per month from their parents and only 0.8% or 3 respondents received an allowance more than RM 3,001 per month. Next, 96 respondents spend RM 201 to

RM 400 per month before the pandemic which is 25.5%. However, 165 (43.9%) respondents spend below RM 200 per month during the pandemic. Only 0.8% or 3 respondents spend more than RM 1,401 before and during the pandemic. Besides, majority of the respondents do not have part time job which is 81.6% or 307 respondents. For those who have part time salary, 30 respondents out of 69 have the salary range between RM 100 to RM 500. The Cronbach Alpha reliability test shows that the variable of price elasticity and peer influence are reliable as it falls between the range of 0.6 to 0.8 which is a good sign.

Next, the findings of Pearson's correlation analysis indicated that there is no correlation between spending behavior and price elasticity, peer influence, and financial literacy as value is close to 0. However, there is positive correlation between spending behavior and family income. Besides, the results on Multiple Linear Regression show a similar result with Pearson's correlation analysis. There is a significant relationship spending behavior and family income whereas price elasticity, peer influence, and financial literacy demonstrates the inexistence of a significant relationship with spending behavior.

Moreover, the Ordinary Least Square test shows that there is a significant change between the online spending behavior before and during the pandemic in all categories which are leisure, ordering food from e-hailing apps, on branded products, groceries, clothes, and health care products. The Paired-T test also shows similar results stating there is a significant change in ordering food from e-hailing apps, on branded products, groceries, clothes, and health care. The only difference in the result of the Paired-T test and the Ordinary Least Square is that the Paired-T test stated that there is no significant change in online spending behavior in the category of Leisure. There was also no multicollinearity and autocorrelation problem in this study. However, heteroscedasticity problem does exist, but it has been reduced through log transformation in this study.

5.2 Discussion of Major Findings

5.2.1 Family Income

H_0: There is no significant relationship between family income and student spending behavior.

H_1: There is a significant relationship between family income and student spending behavior.

According to the analysis, there is a relationship between the student's spending behavior and the family income. In other words, the researchers have sufficient proof to reject the null hypothesis. The results are supported by the analysis in multiple linear regression and Pearson's correlation. Even so, a low Pearson's coefficient (of 0.105) and low regression coefficient (of 0.013) suggest that there is an existence of a weak positive correlation amongst the two variables. At this time, the results are similar to the studies conducted in the past, which stated that the higher the student's family income, the more they are going spend compared to those who came from low-income families (Salikin et al., 2013; Naradin et al., 2017; Mohamad et al., 2016; Robb and Pinto, 2010 and Nano et al., 2015).

5.2.2 Price Elasticity

$H2_0$: There is no significant relationship between price elasticity and student spending behavior.

$H2_1$: There is a significant relationship between price elasticity and student spending behavior.

According to the analysis conducted, there is an inexistence of a significant relationship among the price elasticity and students' spending behavior, which suggested not to reject the null hypothesis. As shown in the Pearson's correlation and multiple linear regression, the p-value of price elasticity is 0.612 and 0.451 respectively, which is far exceeding 0.05. In other words, the price elasticity would not affect the student's spending behavior. The result obtained in this study is contrary to the previous studies conducted by Kauv and Blotnicky (2020), Heijnen (2015), and Goldsmith et al. (2010). The opposite outcome obtained from this study might be caused by the UTAR undergraduate students being less price-sensitive and there is an inelastic demand exist.

5.2.3 Peer Influence

$H3_0$: There is no significant relationship between peer influence and student spending behavior.

$H3_1$: There is a significant relationship between peer influence and student spending behavior.

According to the analysis in multiple linear regression and Pearson's correlation, the value of p for peer influence is at 0.132 and 0.142, respectively. The outcome indicates that there is an inexistence of a significant relationship amongst peer influence and the UTAR undergraduate student's spending behavior as the p-values are greater than 0.05. Thus, the alternative hypothesis has been rejected. In other words, UTAR undergraduate students are less likely to be affected by their peers when comes to spending or to say that they can properly manage their spending. The results are opposite to the research conducted by Chang and Nguyen (2018), Gillani (2012), Gulati (2017), Kauv and Blotnicky (2020), and Mohamad et al (2016), who affirm that the peer is the most significant factor in affecting student's spending behavior.

5.2.4 Financial Literacy

$H4_0$: There is a no significant relationship between financial literacy and student spending behavior.

$H4_1$: There is a significant relationship between financial literacy and student spending behavior.

The outcome of the analysis conducted by this study suggested that there is an inexistence of a significant relationship amongst financial literacy and student spending behavior. This indicates that the respondent's financial literacy level will not influence their monthly spending behavior. In context, the result is the same with the study conducted by Mandell & Klein (2009), who mentioned that those who attended financial management courses seemed to be no better financially behaved than those who did not participate in the course.

5.2.5 Changes of Online Spending Behavior on Leisure

$H5_0$: There is no significant change on online spending behavior on leisure before and during the pandemic.

$H5_1$: There is a significant change on online spending behavior on leisure before and during the pandemic.

There is a contrary result obtained from OLS and paired t-test, where OLS shows that there is a significant change in online spending behavior on leisure before and during the pandemic, whereas the paired t-test demonstrates that there is no significant differences as different type of analysis would display different results The OLS result obtained is the same as the studies done by Gu et al. (2021) and Morse et al. (2021). They suggested that there is an increase in spending on entertainment or leisure products during the pandemic as individuals are motivated to do activities for their leisure based on their interests. The opposite result gets from the paired t-test might be caused by the respondents' tendency to decrease spending on leisure to increase their savings during the pandemic.

5.2.6 Changes of Online Spending Behavior on Ordering Food from E-Hailing Apps

$H6_0$: There is no significant change on spending behavior on ordering food from e-hailing apps before and during the pandemic.

$H6_1$: There is a significant change on spending behavior on ordering food from e-hailing apps before and during the pandemic.

Based on the results, the OLS and paired t-test demonstrate that there is a significant difference in spending behavior on ordering food from e-hailing apps before and during the pandemic. This is supported by the p-value of both analyses, which is lesser than 0.001. Besides, the t score of 7.022 also shows that there is a difference between the spending on ordering food from e-hailing apps before and during the pandemic. This is because contactless services are highly demanded during the pandemic (Shin and You, 2020). Therefore, the alternative hypothesis has been accepted.

5.2.7 Changes of Online Spending Behavior on Branded Products

$H7_0$: There is no significant change on online spending behavior on branded products before and during the pandemic.

$H7_1$: There is a significant change on online spending behavior on branded products before and during the pandemic.

Further, this study could conclude that there is a significant change in online spending behavior on branded products before and during the pandemic. The mean difference of -12.3896 obtained from paired t-test further explained that, on average, the respondents spent more on branded products during the pandemic. This might cause by the extra time the respondents have for online shopping. In this respect, the researchers have 95% confidence to reject the null hypothesis as it is supported by the p-value given by the OLS (less than 0.001) and paired t-test (of 0.017). However, the result obtained was unpredicted because the previous studies suggested that the demand for luxury products has decreased since the pandemic began (Achille and Zipser, 2020 & Gu et al., 2021).

5.2.8 Changes of Online Spending Behavior on Groceries

$H8_0$: There is no significant change on online spending behavior on groceries before and during the pandemic.

$H8_1$: There is a significant change on online spending behavior on groceries before and during the pandemic.

The p-value of less than 0.001 get from the OLS and paired test support the researchers to accept the alternative hypothesis as well. In the meantime, the mean differences of -26.7394 mentioned that the respondents were spending more on groceries online during the pandemic compared to before the pandemic. The outcome is similar to the studies conducted by Barua (2021) and Grashuis et al. (2020), who mentioned that people were encouraged to cook at home during the pandemic.

5.2.9 Changes of Online Spending Behavior on Clothes

$H9_0$: There is no significant change on online spending behavior on clothes before and during the pandemic.

$H9_1$: There is a significant change on online spending behavior on clothes before and during the pandemic.

The researchers of this study have enough evidence to say that there is a significant change in online spending behavior on clothes before and during the pandemic since the p-value of OLS and paired t-test is smaller than 0.001, at the significance level of 5%. Yet, the outcome is distinct from the study done by Gu et al. (2021), who stated that spending on fashion products such as clothes has decreased during the pandemic. The reason that the respondents in this study tend to spend more on clothes online during the pandemic is that they have more time for online shopping. Thus, the null hypothesis has been rejected.

5.2.10 Changes of Online Spending Behavior on Health Care Products

$H10_0$: There is no significant change on online spending behavior on health care products before and during the pandemic.

$H10_1$: There is a significant change on online spending behavior on health care products before and during the pandemic.

Lastly, the null hypothesis which stated that there is no significant change in online spending behavior on health care products before and during the pandemic has been rejected as well. The evidence is given by the small p-value of OLS and the paired t-test. Also, the highest t score obtained compared to other spending categories has demonstrated that there is a significant difference between the online spending on health care products before and during the pandemic. The result is in line with the study delivered by Malthaputri & Sunitiyoso (2021), who mentioned that consumers were preferred to purchase health care products online instead of buying in physical stores during the pandemic.

5.3 Implications of study

Implication of this research assist a better understanding on the spending behavior of UTAR undergraduate students and the factors that influence their spending behavior.

5.3.1 Theoretical Implications

The principle of Psychological Law of Consumption (Keynes, 2020) was utilized in this research paper on UTAR undergraduate students spending behavior. Given the diminishing marginal approach, this theory is employed to describe why when people's income grows, they wish to save more and have lesser expenses. Besides, Permanent Income Hypothesis can be explained as people will prefer consumption in smoothing rather than keep changing in spending behavior after they receive additional income. However, the result that we get in this study shows opposite of both of these theories. By applying this theory, the concept of spending behavior and income can be understood better. In addition, this theory shows how income as a component can have an impact on an individual’s behavior when it comes to spending. Hence, the contracting outcome provides assistance for any future exploration of the concept of Law of Consumptions and Permanent Income Hypothesis with similar variables.

5.3.2 Managerial Implications

The current study has found that family income is significant in a positive way where it is associated with the spending behavior of UTAR undergraduate students. This shows that the greater the family income, the students are prone to spending a higher amount. This suggests that students might not have appropriate spending habits. Guardians should use this research to grasp the sense of how the spending behavior of their children might shift if there were an increase in parents' income. Parents are accountable to control the amount of allowance per month provided to their children and educating them on using money wisely. This ability helps to diminish bad spending habits. Besides, parents also need to remove the concept which is an "increase in income can make more purchasing" away from their child, as this can be the main cause that would lead to a rise in student spending when family income grows.

According to the study that was done, the **financial literacy** level of students has an insignificant and negative connection with the spending behavior of UTAR undergraduate pupils which indicates that students that had high level of financial literacy might not affect their spending behavior. Even if students have more or less financial literacy in school, it doesn't mean they have enough ability to manage their own money or manage their spending. Those who took courses related to financial literacy did not necessarily have better financial concepts than those who did not. Be aware of the problem through this study, people should apply the financial knowledge they have learned in their daily life, manage their finances and consumption well, and reduce excessive expenses.

This study was proving that **peer influence** has negative significant relationship with the spending behavior of UTAR undergraduate students. When pupils are simply affected by their peers, they would like to consume more on purchasing what their friends have or suggest. Hence, students should be more restrained in their consumption, and should not be easily influenced by friends, go with the flow, or buy items that they cannot afford because they want to be recognized by friends.

In this study found that the **price elasticity** has found to be insignificant and negatively relationship to spending behavior of UTAR undergraduate students. In other word, no matter the students are concern on price elasticity, it does not affect their spending behavior. However, if students do not concern about the price elasticity, it might to lead to impulsive consumption. Second, some students with brand trust may not give up buying because of the high price. At the same time, students should not buy luxuries they don't need in pursuit of so-called status or let themselves be in debt to show off.

5.4 Limitations of Study

Various shortcomings were discovered while the research was being conducted. The limitations of the research can impact the end result. Thus, limitations are meant to be pointed out to benefit any future studies regarding the spending behavior of students in hopes that further improvement can be done to attain a more accurate result.

First of all, the scale of the samples taken from undergraduate students is small. There were only 376 questionnaires collected and this size is considered to be small as the population of undergraduate students in UTAR is around 16,800. Therefore, the representation of this study might not be precise as it is only representing a small number of undergraduate students in UTAR. This study also could not be used to characterize the spending behavior of all the undergraduate students in Malaysia due to its large population scale of it.

Furthermore, the results from the statistical background may contain graphical constraints. The results showed that most respondents are from Chinese ethnic backgrounds that is 92.8% due to having the majority of students in UTAR being from Chinese ethnic background. This may be a problem with discrepancies as different ethnicities display different behaviors when it comes to spending. Thus, the results acquired may not be convincing as there are fewer representatives from other ethnicities.

Next, another limitation for this study is the time constraint as the students could not completely focus on this study because there were other academic requirements that they had to deal with. The time to conduct this research was particularly short and the students had a hard time distributing the questionnaires online as most of the prospective respondents would just choose to ignore the survey that was sent to them.

If more time was provided, it is assumed that the research would have a better outcome by adding more independent variables to the study.

The last limitation of this study is having self-report data which is done through the action of distributing questionnaires to respondents. The respondents might not be as honest when they answer the statements that are provided in this study because they may be subject to the pressure of answering in a way that is socially accepted by society rather than answering truthfully to the statements that were provided which would affect the reliability and validity of the study The respondents are completely aware that their answers would be observed, thus they might not feel comfortable by showing their true colors as they are afraid of being judged (Demetriou et al., 2015).

To sum up, there are four limitations to this study which include a smaller scale of samples, graphical constraint, time constraint, and self-reporting data.

5.5 Recommendation

Recommendations are crucial to this research as they can provide some insight on how the study can be improved in the near future about which area should be enhanced in order to receive a more precise result. Therefore, some recommendations were suggested to deal with the problems that were faced in this research such as increasing the sample size, distributing the questionnaire earlier, including more independent variables, and interviewing respondents.

Firstly, potential researchers can consider increasing the size of sample in the study so that the end result would be more accurate and reliable. It would be recommended to

get respondents from other Private Universities to participate in this research instead of only having UTAR undergraduate students. When a larger sample size is used in a study, the higher the chances of getting a more precise estimate (Asiamah et al., 2017). Thus, having a sample size that is larger than 376 is recommended to improve this study.

Other than that, is recommended to distribute the questionnaires as soon as it is finalized. This action can save time for the researchers as they can take their time to distribute the questionnaires without having to rush and stress about not getting enough respondents. This action is extremely crucial as it needs more time and effort to get respondents to respond to the questionnaire through an online method.

Furthermore, it is recommended to have additional independent variables to determine the behavior of spending in the pupils. In this research, we only have four variables which are parental income, price elasticity, peer influence, and financial literacy. Therefore, other variables that can be included are personality traits, financial habits, and the lifestyle of the student. By adding these variables, the results on spending behavior can be more accurate.

Lastly, it is also suggested to distribute questionnaires and interview some of the respondents regarding their spending behavior to get a clearer and more detailed view of the way they spend. By interviewing respondents, researchers can abstract more information from the respondents that could benefit the result of the research given that the respondent must be comfortable and in a relaxed environment while the interview is being conducted (Codó et al, 2008).

To sum up, the recommendations for this research are to increase the sample size, distribute the questionnaire at the earliest time, add more independent variables, and conduct interviews with our respondents.

5.6 Conclusion

To sum up, the result of the analysis shows that only family income has a significant relationship with the spending behavior of UTAR undergraduate students. Whereas price elasticity, peer influence, and financial literacy are found to be insignificant with the spending behavior of UTAR undergraduate students.

Besides, there are significant changes in the online spending behavior of the students in all categories which include leisure, ordering food from e-hailing apps, branded products, groceries, clothes, and health care products through the analysis of Ordinary Least Square regression. Similar results were found through the use of paired T-test however, only online spending behavior on leisure does not show significant changes.

The recommendation to improve on this research is to include more independent variables such as personality traits, financial habits, the lifestyle of the undergraduate pupils. The objectives of this study were accomplished by examining the relationship of UTAR undergraduate student's spending behavior with family income, price elasticity, peer influence, and financial literacy. Another set of objectives was also achieved by understanding whether there were any online spending behavior changes in different categories such as leisure, ordering food from e-hailing apps, branded products, groceries, clothes, and health care products

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Appendix 2.1 Summary of Changes of Spending Behavior Based on Categories

Category	Author	Year	Title	Result
Leisure	Gu et al.	2021	Impact of the COVID-19 Pandemic on Online Consumer Purchasing Behavior	
Ordering food from e-hailing apps	Shin and You	2020	COVID-19, Non-contact Spending and Strategies for Local Shops	There were significant changes of spending behavior in all categories
Branded products	Gu et al.	2021	Impact of the COVID-19 Pandemic on Online Consumer Purchasing Behavior	
Groceries				
Clothes				
Healthcare products	Andersen et al	2020	Pandemic, shutdown and consumer spending: Lessons from Scandinavian policy responses to COVID-19	

Appendix 2.2 Summary of literature review in family income.

Author	Year	Title	Result
Salikin et al.	2013	Students' Saving Attitude: Does Parents' Background Matter?	Positive relationship between family income and undergraduate University student's spending behavior
Naradin et al.	2017	Determinants of the saving behaviour among students of UiTM Terengganu.	
Mohamad et al.	2016	Antecedent Affecting Spending Attitudes: A Case of Malaysian University Students.	
Robb and Pinto	2010	College Students and Credit Card Use: An Analyses of Financially at-risk students.	
Nano et al.	2015	The Impact of Family Income on Students Financial Attitude.	
Jorgensen et al.	2016	Financial Attitudes and Responsible Spending Behavior of Emerging Adults:	Negative relationship between family

		Does Geographic Location Matter?	income and undergraduate University student's spending behavior

Appendix 2.3 Summary of literature review in price elasticity.

Author	Year	Title	Result
Kauv and Blotnicky	2020	Brand loyalty, brand trust, peer influence and price sensitivity as influencers in student computer purchase.	Positive Relationship between Price Elasticity and Student Spending Behaviour
Heijnen	2015	Student Loans and Spending Behavior	
Hervé & Mullet	2009	Age and factors influencing consumer behaviour	
Goldsmith et al.	2010	Status Consumption and Price Sensitivity	

Appendix 2.4 Summary of literature review in peer influence.

Author	Year	Title	Result
Gulati	2017	Impact of Peer Pressure on Buying Behaviour.	Positive Relationship between Peer Influence and Student Spending Behavior
Gillani	2012	Impact of Peer Pressure and Store Atmosphere on Purchase Intention: An Empirical Study on the Youngsters in Pakistan.	
Chang and Nguyen	2018	Peer pressure and its influence on consumers in Taiwan.	
Kauv and Blotnicky	2020	Brand loyalty, brand trust, peer influence and price sensitivity as influencers in student computer purchase.	
Mohamad et al.	2016	Antecedent Affecting Spending Attitudes: A Case of Malaysian University Students.	

Appendix 2.5 Summary of literature review in financial literacy.

Author	Year	Title	Result
Zulfaris et al.	2020	Student and Money Management Behavior of a Malaysian Public University.	Positive relationship between financial literacy and undergraduate student's spending behavior.
Arofah et al.	2018	Financial Literacy, Materialism and Financial Behavior.	
Shahryar & Tan	2014	Spending Behaviour of a Case of Asian University Students.	
Kozina & Ponikvar	2015	Financial Literacy of First-Year University Students: The Role of Education	
Mandell & Klein	2009	The Impact of Financial Education on Subsequent	Negative relationship between financial

		Financial Behavior.	literacy and undergraduate student's spending behavior.

Appendix 3.1

UNIVERSITY TUNKU ABDUL RAHMAN (UTAR)

FACULTY OF BUSINESS AND FINANCE

BACHELOR OF ECONOMICS

(HONS) FINANCIAL ECONOMICS

FINAL YEAR PROJECT: Spending Behavior of UTAR Undergraduate Students

The objective of this research is to study the spending behavior of the students and to analyze the changes in spending behavior of the students before and during the pandemic. We are extremely grateful for your participation and your response is greatly appreciated. Thank you for your time.

Instructions:

1) Please answer all the questions in the questionnaire. There are 3 sections in the questionnaire.

2) All the information that you provided in this questionnaire will be strictly confidential and only be used for our research.

3) The completion of this questionnaire would only take a 10 to 15 minutes.

Information of group members:

No	Name	Student ID
1	Lai Yee Xiang	1802754
2	Ting Siew Toong	1804124
3	Wong Huey Ying	1804013

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https://fbf.utar.edu.my/

16th August 2021

To Whom It May Concern

Dear Sir/Madam,

Permission to Conduct Survey

This is to confirm that the following students are currently pursuing their Bachelor of Economics (Honours) Financial Economics program at the Faculty of Business and Finance, Universiti Tunku Abdul Rahman (UTAR) Perak Campus.

I would be most grateful if you could assist them by allowing them to conduct their research at your institution. All information collected will be kept confidential and used only for academic purposes.

The students are as follows:

Name of Student	**Student ID**
Lai Yee Xiang	18ABB02754
Ting Siew Toong	18ABB04124
Wong Huey Ying	18ABB04013

If you need further verification, please do not hesitate to contact me.

Thank you.

Yours sincerely,

…….

Ms Thavamalar a/p Ganapathy
Head of Department
Faculty of Business and Finance
Email: thavamalar@utar.edu.my

……

Mr Kuar Lok Sin
Supervisor
Faculty of Business and Finance
Email: kuarls@utar.edu.my

Section A: Demographic Profile

This section is about your demographic information. Please state and select the most suitable option.

(1) What is your age?

Please specify, _____

(2) What is your gender?

- ☐ Female
- ☐ Male

(3) What is your ethnicity?

- ☐ Chinese
- ☐ Indian
- ☐ Malay
- ☐ Others, _____

(4) Year of study?

- ☐ Bachelor degree Year 1
- ☐ Bachelor degree Year 2
- ☐ Bachelor degree Year 3
- ☐ Bachelor degree Year 4
- ☐ Bachelor degree Year 5
- ☐ Bachelor degree Year 5 and above, please specify, _____

(5) Campus?

- ☐ Kampar Campus
- ☐ Sungai Long Campus

(6) Faculty?

- ☐ FAM
- ☐ FAS
- ☐ FBF
- ☐ FCI
- ☐ FEGT
- ☐ FICT
- ☐ FMHS
- ☐ FSC
- ☐ ICS
- ☐ LKC FES
- ☐ CEE
- ☐ Others _____

(7) How much allowances do you receive from your parents per month?

- ☐ Below RM 500
- ☐ RM 501 to RM 1,000
- ☐ RM 1,001 to RM 1,500
- ☐ RM 1,501 to RM 2,000
- ☐ RM 2,001 to RM 2,500
- ☐ RM 2,501 to RM 3,000
- ☐ More than RM 3,000

(8) Are you currently working part time? (Proceed to next question if yes)

- ☐ Yes
- ☐ No

(9) How much is your part time salary? Please specify RM_____?

- ☐ _____

Section B: Factors influencing spending behavior (Independent Variables)

This section is about the factors influencing spending behavior. Please choose the most suitable option.

(1) Family Income

What is your parent's monthly income?

RM _____

Please show your level of agreement and disagreement towards the statements below by circling the most suitable option.

1- Strongly Disagree (SD) 2- Disagree(D) 3- Neutral(N) 4- Agree(A) 5- Strongly Agree(SA)

	(2) Price Elasticity	**SD**	**D**	**N**	**A**	**SA**
i.	I compare prices whenever I buy a product	1	2	3	4	5
ii.	I noticed when there is an increase in price when I buy goods.	1	2	3	4	5
iii.	I am upset whenever I miss a discount on a product.	1	2	3	4	5
iv.	I make an effort to buy the best quality in a product.	1	2	3	4	5
v.	I have a reference price for a particular good. (For example, box tissues should not cost more than RM 10.)	1	2	3	4	5
vi.	I find it important that the goods that I buy are cheap.	1	2	3	4	5

(3) Peer Influence		SD	D	N	A	SA
i.	I always seek advice from my friends before purchasing any luxury products.	1	2	3	4	5
ii.	My friend's opinion matters to me the most when it comes to purchasing a product.	1	2	3	4	5
iii.	I will buy the products (or brands) that my friends have bought.	1	2	3	4	5
iv.	I spend more when I hang out with friends.	1	2	3	4	5
v.	My friends influence me to purchase trendy products.	1	2	3	4	5
vi.	My friends often ask me to buy things together to get a discount.	1	2	3	4	5

This section measures your knowledge in financial literacy. Based on your understanding, please choose the correct answer.

	(4)Financial Literacy
i	Jack, John, May, and Jane planning to buy a gift to Alex which cost RM2000. If they have to share the cost equally how much does each one need pay?
	a. RM 400 **b. RM 500** c. RM 450
ii	It is usually possible to reduce the risk of investing in the stock market by buying a wide range of stocks and shares.
	a. True b. False
iii	The meaning of high inflation is
	a. The prices of all items have become very cheap **b. cost of living is increasing rapidly** c. The country's economy has improved
iv	The return of an investment is depended on its risk
	a. no risk, high return b. low risk, high return **c. high risk, high return**
v	Suppose Adam put RM 1000 into savings account with a guaranteed interest rate of 3% per year. He didn't make any further payments into the account and he didn't withdraw any money. How much would be in the account at the end of the first year, once the interest payment is made?
	a. RM 1003 **b. RM 1030** c. RM 1300
vi	(Continued from v) how much will be in the account at the end of five year?
	a. More than $1100 b. Exactly $1100 c. Less than $1100 d. Or is it impossible to tell from the information given
vii	Imagine that the brothers have to wait for one year to get their share of the $1000. In one year's time will they be able to buy:
	a. More b. The same amount **c. Less than they could buy today**
viii	You lend $50 to a friend one evening and he gives you $50 back the next day. How much interest has he paid on this loan?
	a. 1%

	b. 0% c. 0.01%

Section C: Spending behavior before and during the pandemic:

This following section measures how much you spend per month before and during the pandemic.

(i) How much do you spend per month **before** the pandemic?

RM _____

(ii) How much do you spend per month **during** the pandemic? (Dependent Variable)

RM _____

Section D: Spending behavior online before and during the pandemic

This following section signifies spending behavior. Please place a tick "√" for the most suitable choice for each question.

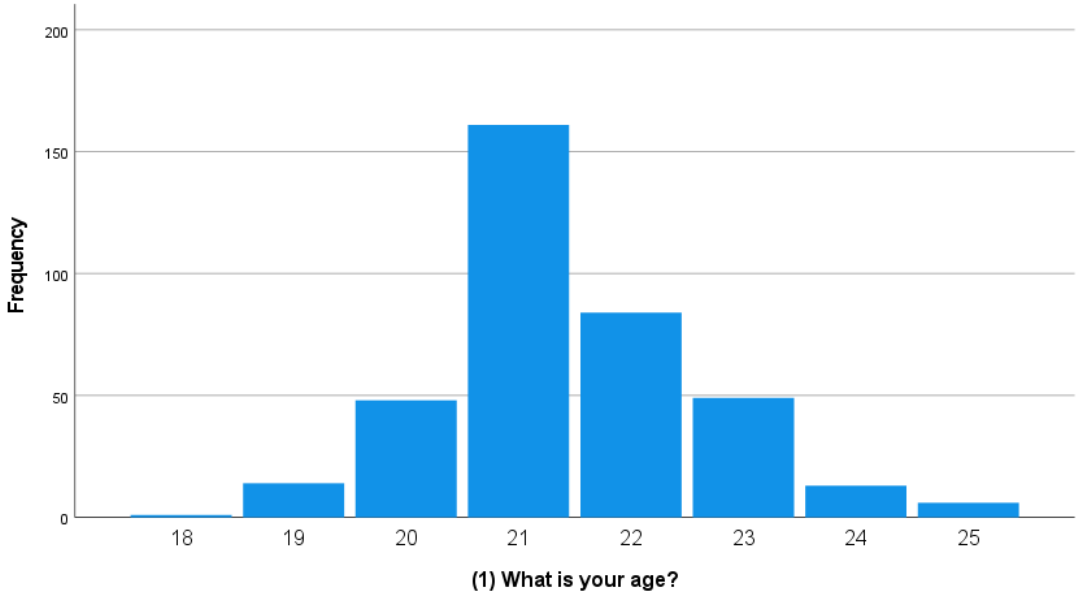
What is your online spending behavior before and during the pandemic?

(1) I spent _ per month online on leisure before and during the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)	
Before the pandemic RM____	During the pandemic RM_____
(2) I spent _ per month on ordering food from e-hailing apps before and during the pandemic.	
Before the pandemic RM____	During the pandemic RM_____
(3) I spent _ per month online on branded products before and during the pandemic.	
Before the pandemic RM____	During the pandemic RM_____
(4) I spent _ per month online on groceries before and during the pandemic.	
Before the pandemic RM___	During the pandemic RM_____
(5) I spent _ per month online on clothes before and during the pandemic.	
Before the pandemic RM____	During the pandemic RM_____
(6) I spent _ per month online on health care products before and during the pandemic. (For example, supplements, face mask, sanitizers, and etc.)	
Before the pandemic RM____	During the pandemic RM_____

THANK YOU FOR YOUR PARTICIPATION

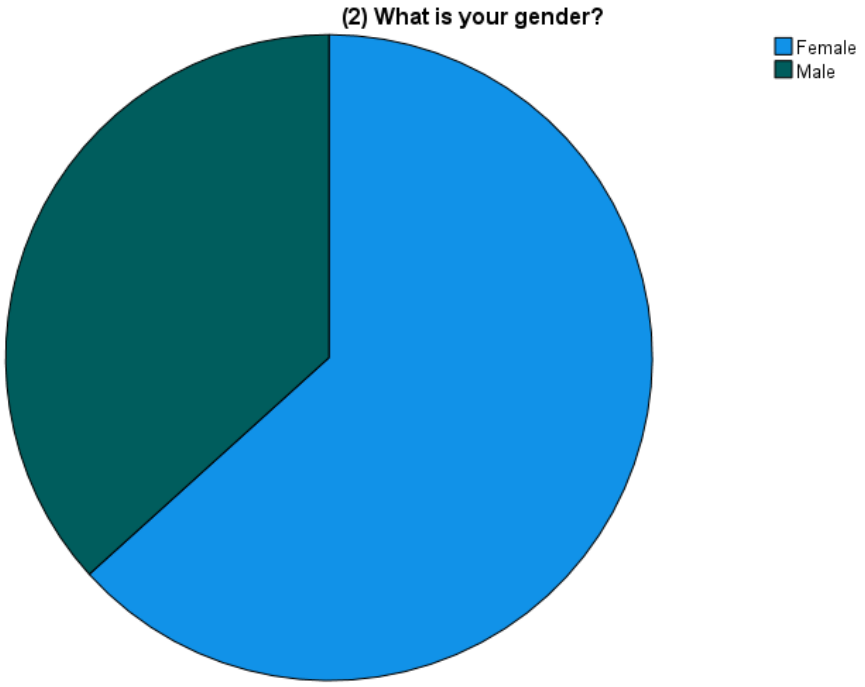
Appendix 4.1 Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18	1	.3	.3	.3
	19	14	3.7	3.7	4.0
	20	48	12.8	12.8	16.8
	21	161	42.8	42.8	59.6
	22	84	22.3	22.3	81.9
	23	49	13.0	13.0	94.9
	24	13	3.5	3.5	98.4
	25	6	1.6	1.6	100.0
	Total	376	100.0	100.0	



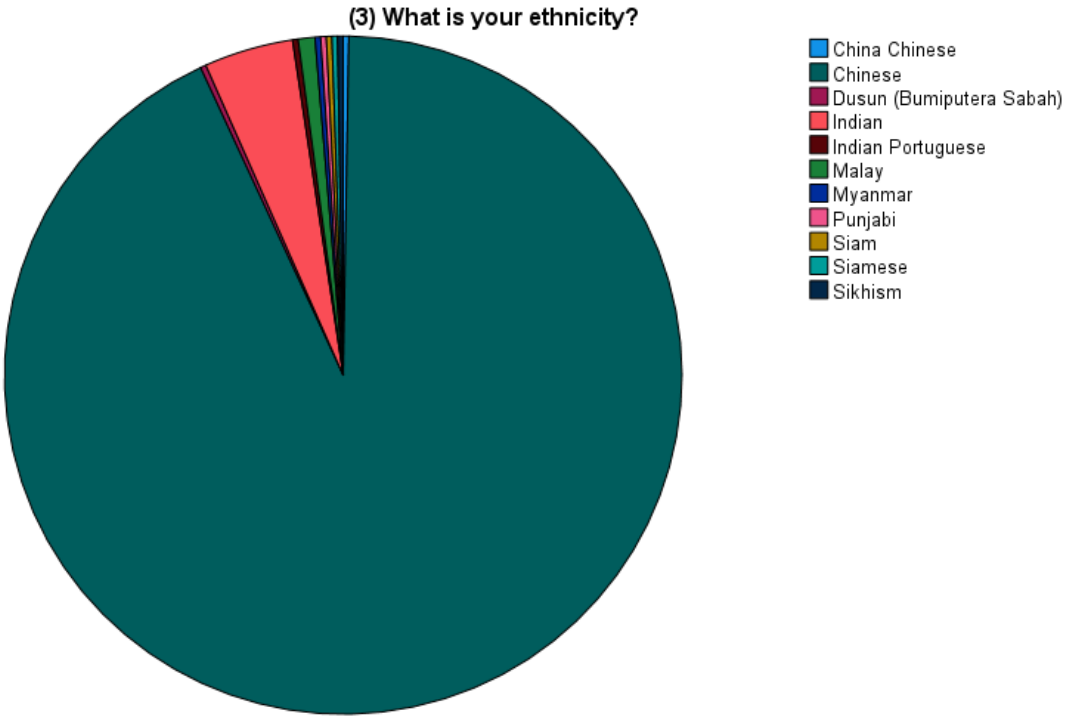
Appendix 4.2 Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	238	63.3	63.3	63.3
	Male	138	36.7	36.7	100.0
	Total	376	100.0	100.0	



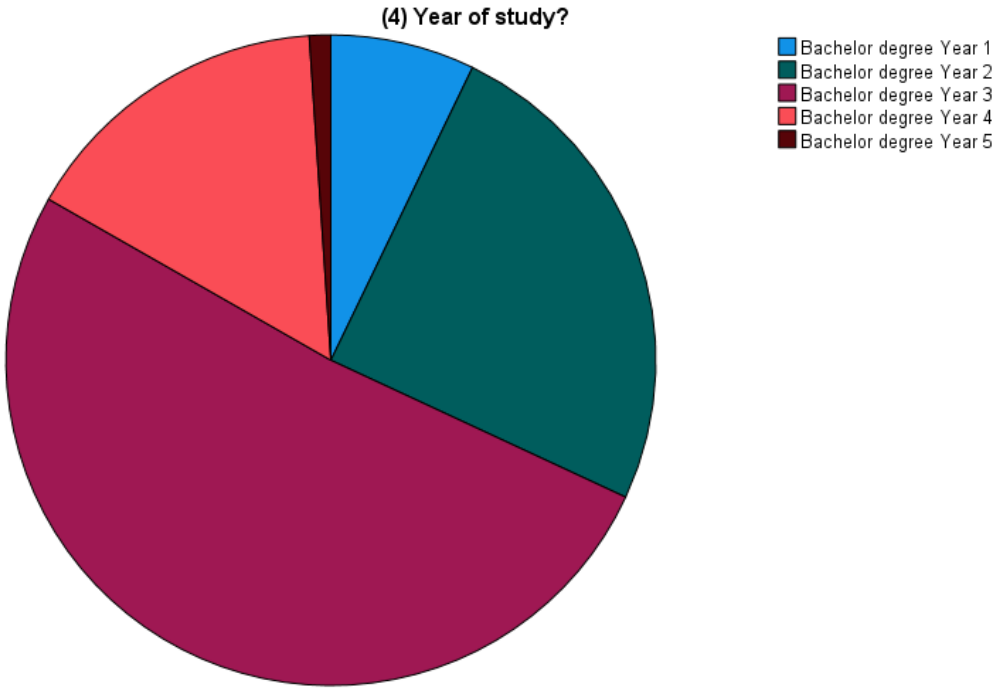
Appendix 4.3 Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	China Chinese	1	.3	.3	.3
	Chinese	349	92.8	92.8	93.1
	Dusun (Bumiputera Sabah)	1	.3	.3	93.4
	Indian	16	4.3	4.3	97.6
	Indian Portuguese	1	.3	.3	97.9
	Malay	3	.8	.8	98.7
	Myanmar	1	.3	.3	98.9
	Punjabi	1	.3	.3	99.2
	Siam	1	.3	.3	99.5
	Siamese	1	.3	.3	99.7
	Sikhism	1	.3	.3	100.0
	Total	376	100.0	100.0	



Appendix 4.4 Year of Study

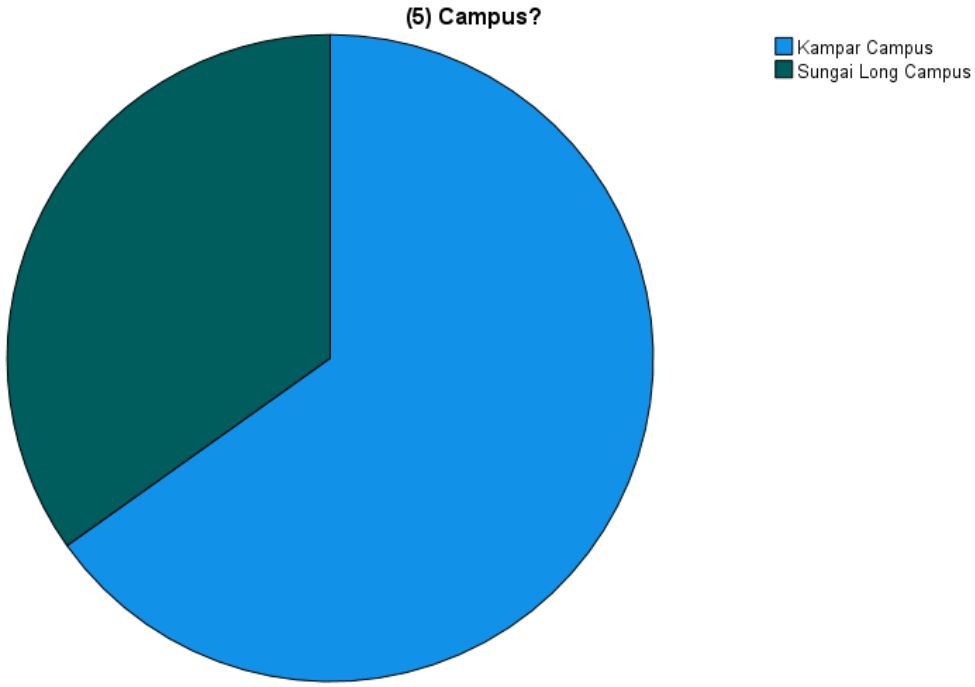
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's degree Year 1	27	7.2	7.2	7.2
	Bachelor's degree Year 2	93	24.7	24.7	31.9
	Bachelor's degree Year 3	193	51.3	51.3	83.2
	Bachelor's degree Year 4	59	15.7	15.7	98.9
	Bachelor's degree Year 5	4	1.1	1.1	100.0
	Total	376	100.0	100.0	



Appendix 4.5 Campus of respondent

(5) Campus?

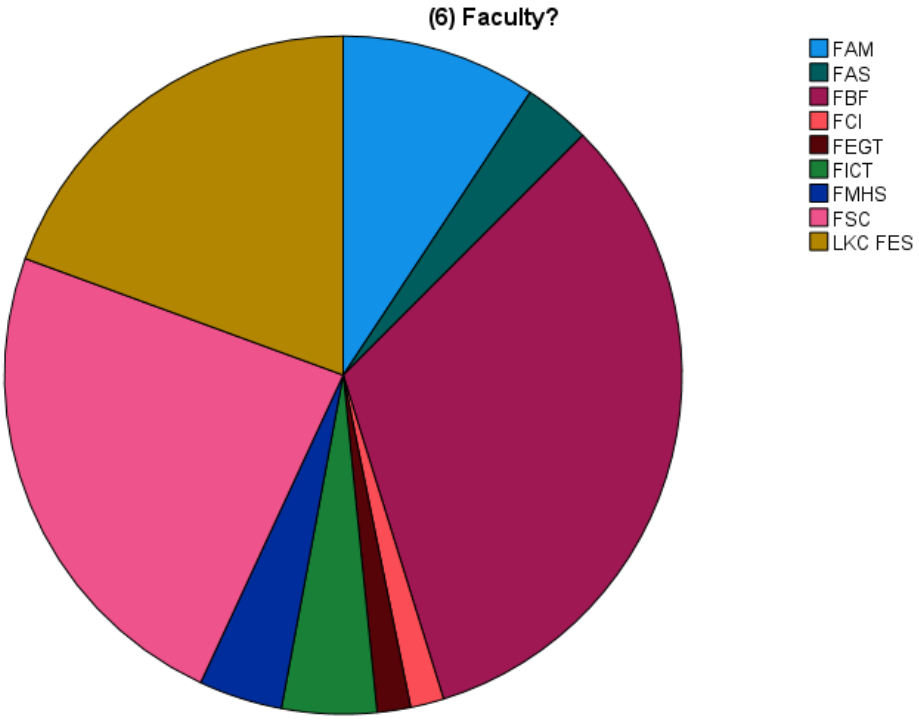
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Kampar Campus	245	65.2	65.2	65.2
	Sungai Long Campus	131	34.8	34.8	100.0
	Total	376	100.0	100.0	



Appendix 4.6 Faculty of respondent

(6) Faculty?

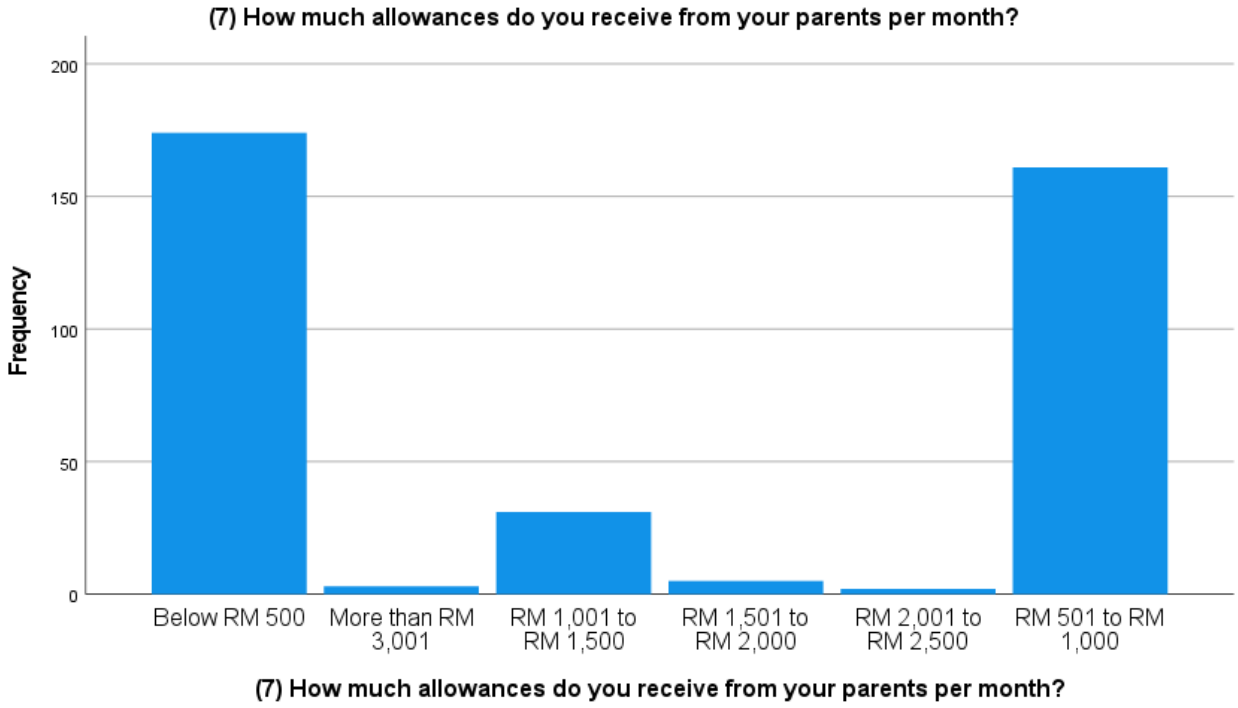
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	FAM	35	9.3	9.3	9.3
	FAS	12	3.2	3.2	12.5
	FBF	123	32.7	32.7	45.2
	FCI	6	1.6	1.6	46.8
	FEGT	6	1.6	1.6	48.4
	FICT	17	4.5	4.5	52.9
	FMHS	15	4.0	4.0	56.9
	FSC	89	23.7	23.7	80.6
	LKC FES	73	19.4	19.4	100.0
	Total	376	100.0	100.0	



Appendix 4.7 Allowance respondent receive from their parents per month

(7) How much allowances do you receive from your parents per month?

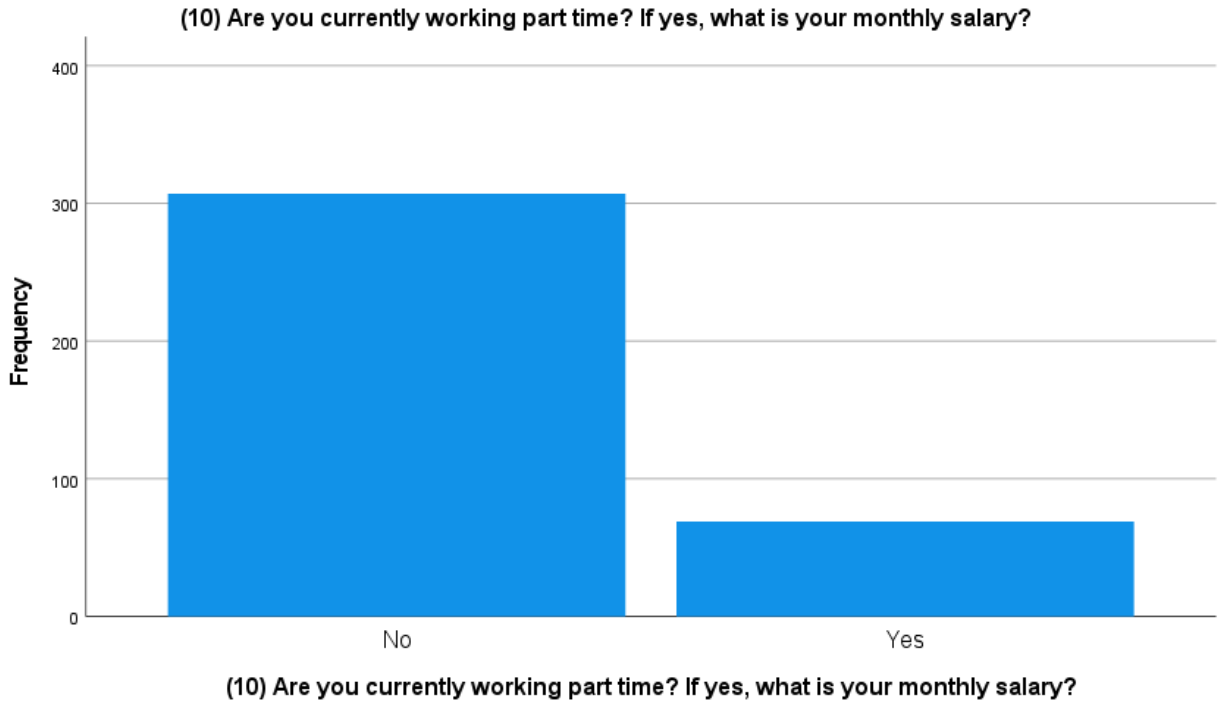
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below RM 500	174	46.3	46.3	46.3
	RM 501 to RM 1,000	161	42.8	42.8	89.1
	More than RM 3,001	3	.8	.8	89.9
	RM 1,001 to RM 1,500	31	8.2	8.2	98.1
	RM 1,501 to RM 2,000	5	1.3	1.3	99.4
	RM 2,001 to RM 2,500	2	.5	.5	100.0
	Total	376	100.0	100.0	



Appendix 4.8. Whether if Respondents are Working Part Time or Not

(10) Are you currently working part time? If yes, what is your monthly salary?

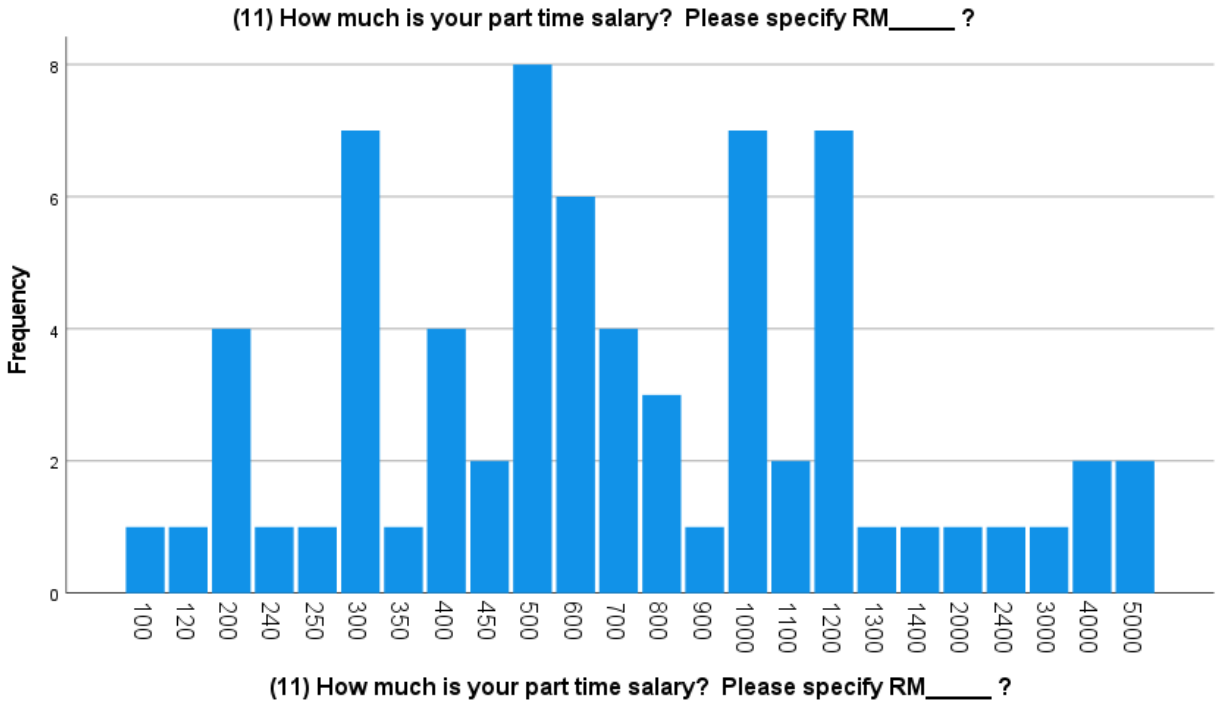
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	307	81.6	81.6	81.6
	Yes	69	18.4	18.4	100.0
	Total	376	100.0	100.0	



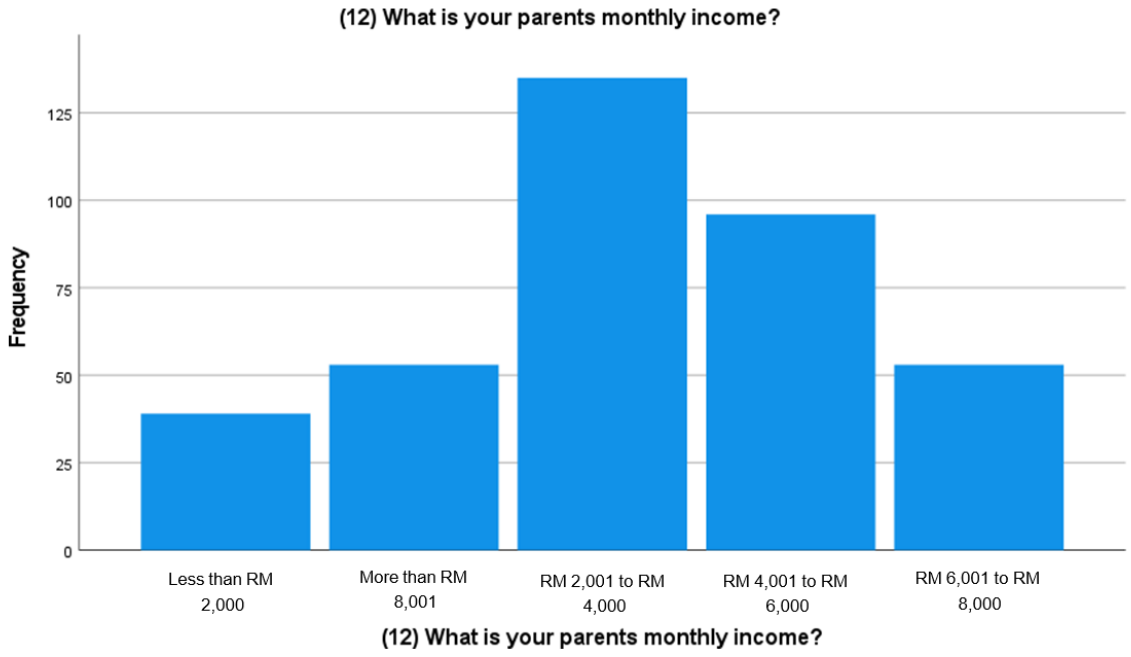
Appendix 4.9. Part Time Salary of Respondents

(11) How much is your part time salary? Please specify RM_____ ?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100	1	.3	1.4	1.4
	120	1	.3	1.4	2.9
	200	4	1.1	5.8	8.7
	240	1	.3	1.4	10.1
	250	1	.3	1.4	11.6
	300	7	1.9	10.1	21.7
	350	1	.3	1.4	23.2
	400	4	1.1	5.8	29.0
	450	2	.5	2.9	31.9
	500	8	2.1	11.6	43.5
	600	6	1.6	8.7	52.2
	700	4	1.1	5.8	58.0
	800	3	.8	4.3	62.3
	900	1	.3	1.4	63.8
	1000	7	1.9	10.1	73.9
	1100	2	.5	2.9	76.8
	1200	7	1.9	10.1	87.0
	1300	1	.3	1.4	88.4
	1400	1	.3	1.4	89.9
	2000	1	.3	1.4	91.3
	2400	1	.3	1.4	92.8
	3000	1	.3	1.4	94.2
	4000	2	.5	2.9	97.1
	5000	2	.5	2.9	100.0
	Total	69	18.4	100.0	
Missing	System	307	81.6		
Total		376	100.0		



Appendix 4.10 Parent's Monthly Income of Respondents



i) What is your parent's monthly income?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2000.0	39	10.4	10.4	10.4
	3000.0	135	35.9	35.9	46.3
	5000.5	96	25.5	25.5	71.8
	7000.5	53	14.1	14.1	85.9
	8000.0	53	14.1	14.1	100.0
	Total	376	100.0	100.0	

Appendix 4.11 Financial Literacy

Statistics

Sum of Score

N	Valid	376
	Missing	0

Sum of Score

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	.5	.5	.5
	3	3	.8	.8	1.3
	4	10	2.7	2.7	4.0
	5	39	10.4	10.4	14.4
	6	96	25.5	25.5	39.9
	7	141	37.5	37.5	77.4
	8	85	22.6	22.6	100.0
	Total	376	100.0	100.0	

i. Jack, John, May, and Jane planning to buy a gift to Alex which cost RM2000. If they have to share the cost equally how much does each one need pay?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wrong	12	3.2	3.2	3.2
	Correct	364	96.8	96.8	100.0
	Total	376	100.0	100.0	

ii. It is usually possible to reduce the risk of investing in the stock market by buying a wide range of stocks and shares.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wrong	120	31.9	31.9	31.9
	Correct	256	68.1	68.1	100.0
	Total	376	100.0	100.0	

iii. The meaning of high inflation is

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wrong	25	6.6	6.6	6.6
	Correct	351	93.4	93.4	100.0
	Total	376	100.0	100.0	

iv. The return of an investment is depended on its risk

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wrong	38	10.1	10.1	10.1
	Correct	338	89.9	89.9	100.0
	Total	376	100.0	100.0	

v. Suppose Adam put RM 1000 into savings account with a guaranteed interest rate of 3% per year. He didn't make any further payments into the account and he didn't withdraw any money. How much would be in the account at the end of the first year, once the interest payment is made?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wrong	39	10.4	10.4	10.4
	Correct	337	89.6	89.6	100.0
	Total	376	100.0	100.0	

vi. (0ontinue0 from v) how mu0h will be in the a00ount at the en0 of five year?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wrong	92	24.5	24.5	24.5
	Correct	284	75.5	75.5	100.0
	Total	376	100.0	100.0	

vii. Im0gine th0t the brothers h0ve to w0it for one ye0r to get their sh0re of the $1000. In one ye0râ€™s time will they be 0ble to buy:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wrong	171	45.5	45.5	45.5
	Correct	205	54.5	54.5	100.0
	Total	376	100.0	100.0	

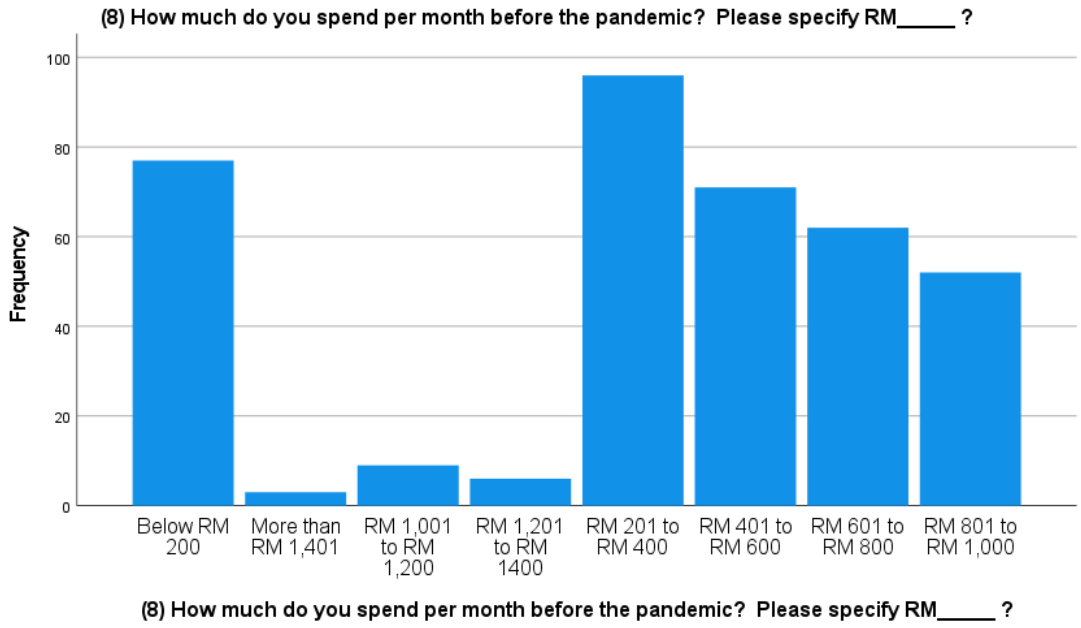
viii. You lend $50 to a friend one evening and he gives you $50 ba0k the next day. How mu0h interest has he paid on this loan?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wrong	20	5.3	5.3	5.3
	Correct	356	94.7	94.7	100.0
	Total	376	100.0	100.0	

Appendix 4.12 How much respondent spend per month before pandemic

(8) How much do you spend per month before the pandemic? Please specify RM_____?

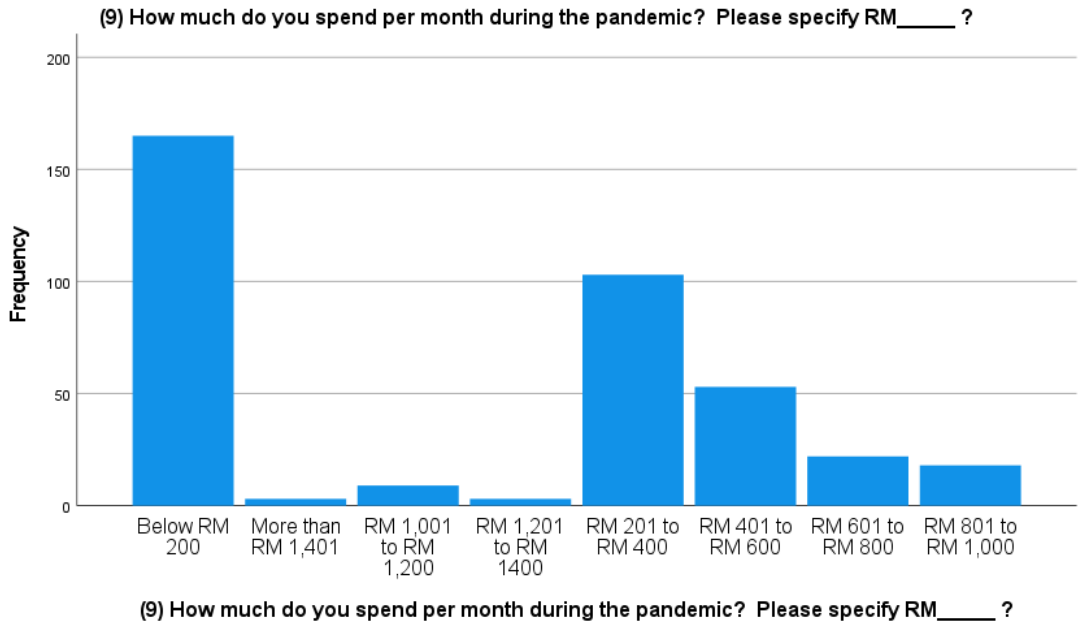
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below RM 200	77	20.5	20.5	20.5
	More than RM 1,401	3	.8	.8	21.3
	RM 1,001 to RM 1,200	9	2.4	2.4	23.7
	RM 1,201 to RM 1400	6	1.6	1.6	25.3
	RM 201 to RM 400	96	25.5	25.5	50.8
	RM 401 to RM 600	71	18.9	18.9	69.7
	RM 601 to RM 800	62	16.5	16.5	86.2
	RM 801 to RM 1,000	52	13.8	13.8	100.0
	Total	376	100.0	100.0	



Appendix 4.13 Spending Per Month During the Pandemic of Respondents

(9) How much do you spend per month during the pandemic? Please specify RM_____ ?

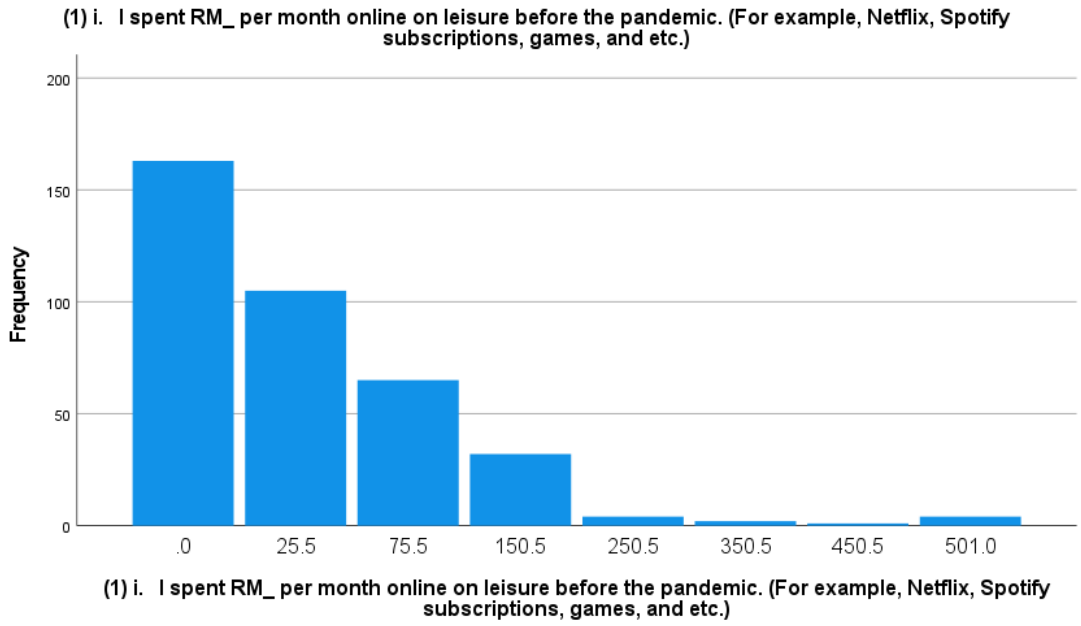
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below RM 200	165	43.9	43.9	43.9
	More than RM 1,401	3	.8	.8	44.7
	RM 1,001 to RM 1,200	9	2.4	2.4	47.1
	RM 1,201 to RM 1400	3	.8	.8	47.9
	RM 201 to RM 400	103	27.4	27.4	75.3
	RM 401 to RM 600	53	14.1	14.1	89.4
	RM 601 to RM 800	22	5.9	5.9	95.2
	RM 801 to RM 1,000	18	4.8	4.8	100.0
	Total	376	100.0	100.0	



Appendix 4.14 Spending per month online on leisure before the pandemic

(1) i. I spent RM_ per month online on leisure before the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)

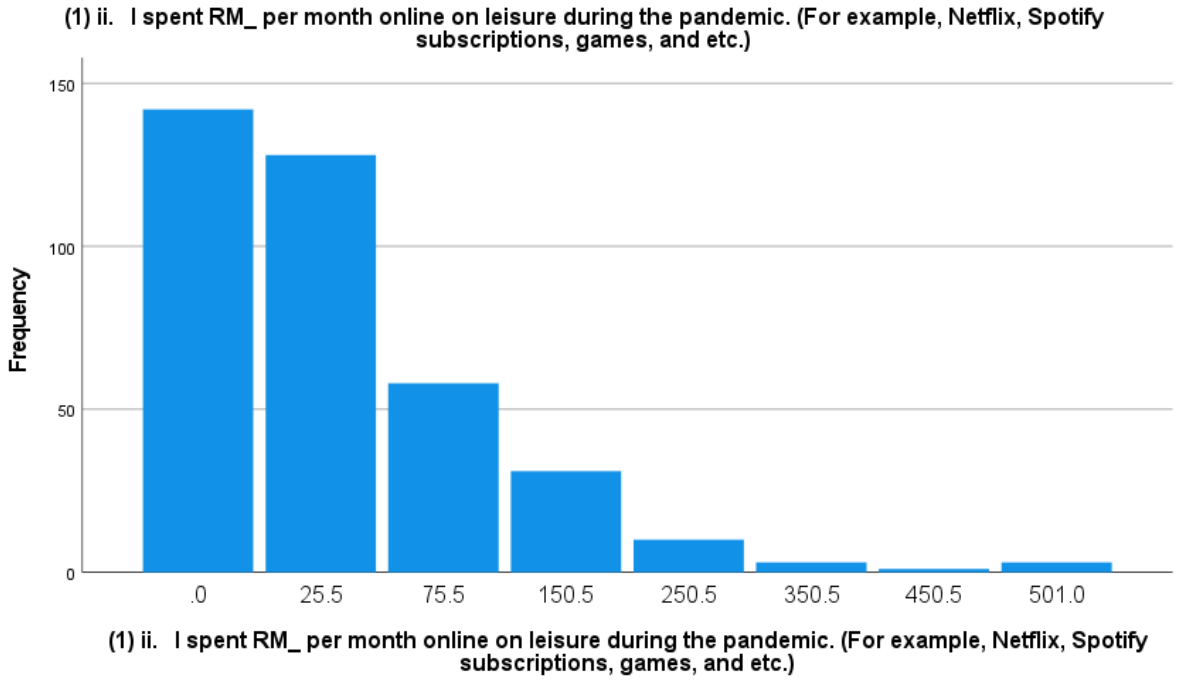
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	163	43.4	43.4	43.4
	25.5	105	27.9	27.9	71.3
	75.5	65	17.3	17.3	88.6
	150.5	32	8.5	8.5	97.1
	250.5	4	1.1	1.1	98.1
	350.5	2	.5	.5	98.7
	450.5	1	.3	.3	98.9
	501.0	4	1.1	1.1	100.0
	Total	376	100.0	100.0	



Appendix 4.15 Spending per month online on leisure during the pandemic

(1) ii. I spent RM_ per month online on leisure during the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)

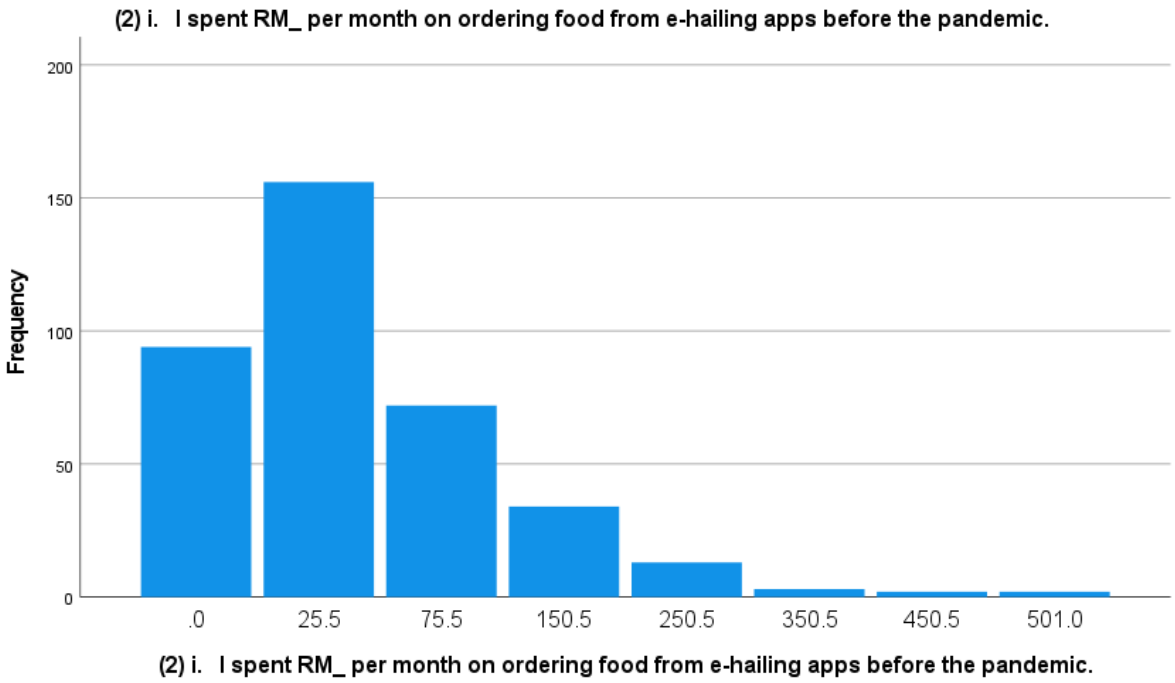
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	142	37.8	37.8	37.8
	25.5	128	34.0	34.0	71.8
	75.5	58	15.4	15.4	87.2
	150.5	31	8.2	8.2	95.5
	250.5	10	2.7	2.7	98.1
	350.5	3	.8	.8	98.9
	450.5	1	.3	.3	99.2
	501.0	3	.8	.8	100.0
	Total	376	100.0	100.0	



Appendix 4.16 Spending per month on ordering food from e-hailing apps before the pandemic

(2) i. I spent RM_ per month on ordering food from e-hailing apps before the pandemic.

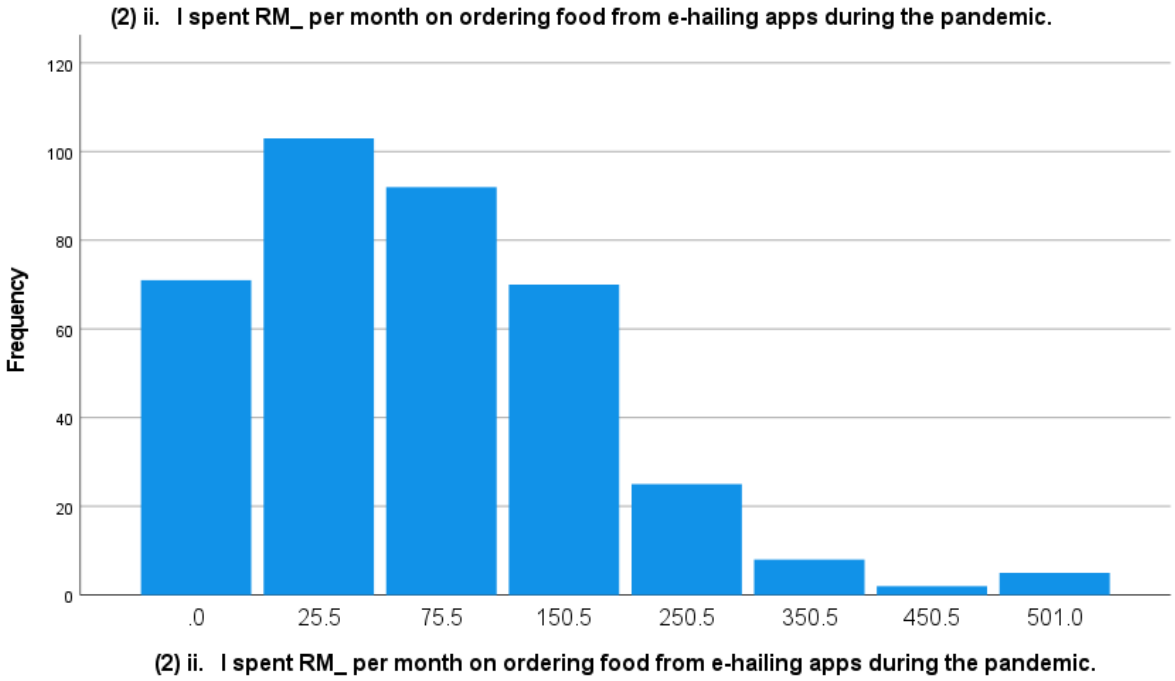
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	94	25.0	25.0	25.0
	25.5	156	41.5	41.5	66.5
	75.5	72	19.1	19.1	85.6
	150.5	34	9.0	9.0	94.7
	250.5	13	3.5	3.5	98.1
	350.5	3	.8	.8	98.9
	450.5	2	.5	.5	99.5
	501.0	2	.5	.5	100.0
	Total	376	100.0	100.0	



Appendix 4.17 Spending per month online on ordering food from e-hailing apps during the pandemic

(2) ii. I spent RM_ per month on ordering food from e-hailing apps during the pandemic.

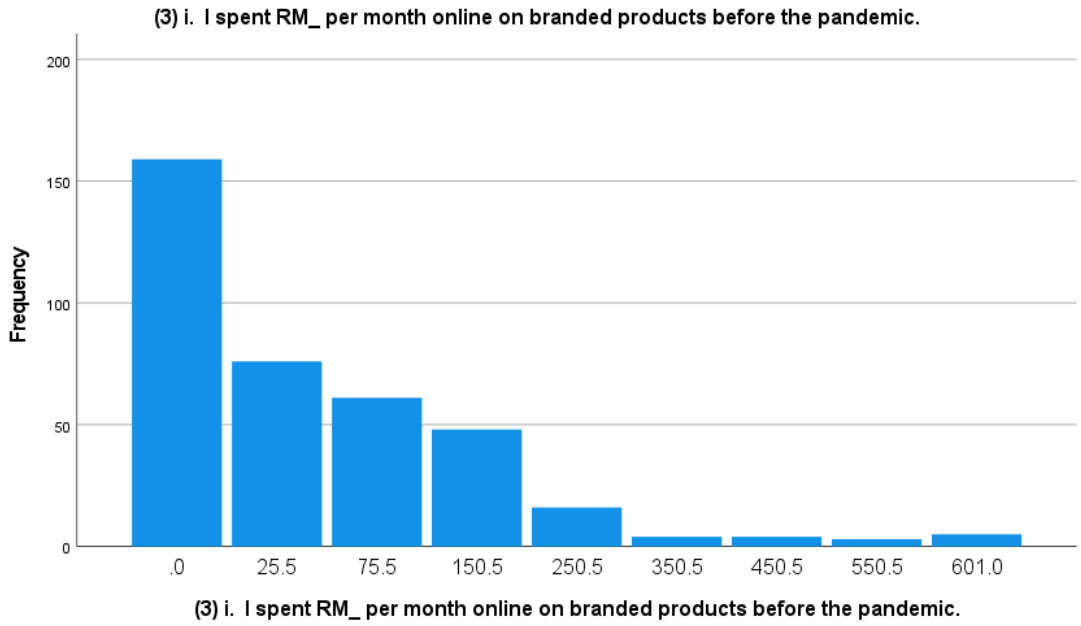
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	71	18.9	18.9	18.9
	25.5	103	27.4	27.4	46.3
	75.5	92	24.5	24.5	70.7
	150.5	70	18.6	18.6	89.4
	250.5	25	6.6	6.6	96.0
	350.5	8	2.1	2.1	98.1
	450.5	2	.5	.5	98.7
	501.0	5	1.3	1.3	100.0
	Total	376	100.0	100.0	



Appendix 4.18 Spending per month online on branded products before the pandemic

(3) i. I spent RM_ per month online on branded products before the pandemic.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	159	42.3	42.3	42.3
	25.5	76	20.2	20.2	62.5
	75.5	61	16.2	16.2	78.7
	150.5	48	12.8	12.8	91.5
	250.5	16	4.3	4.3	95.7
	350.5	4	1.1	1.1	96.8
	450.5	4	1.1	1.1	97.9
	550.5	3	.8	.8	98.7
	601.0	5	1.3	1.3	100.0
	Total	376	100.0	100.0	



Appendix 4.19 Spending per month online on branded products during the pandemic

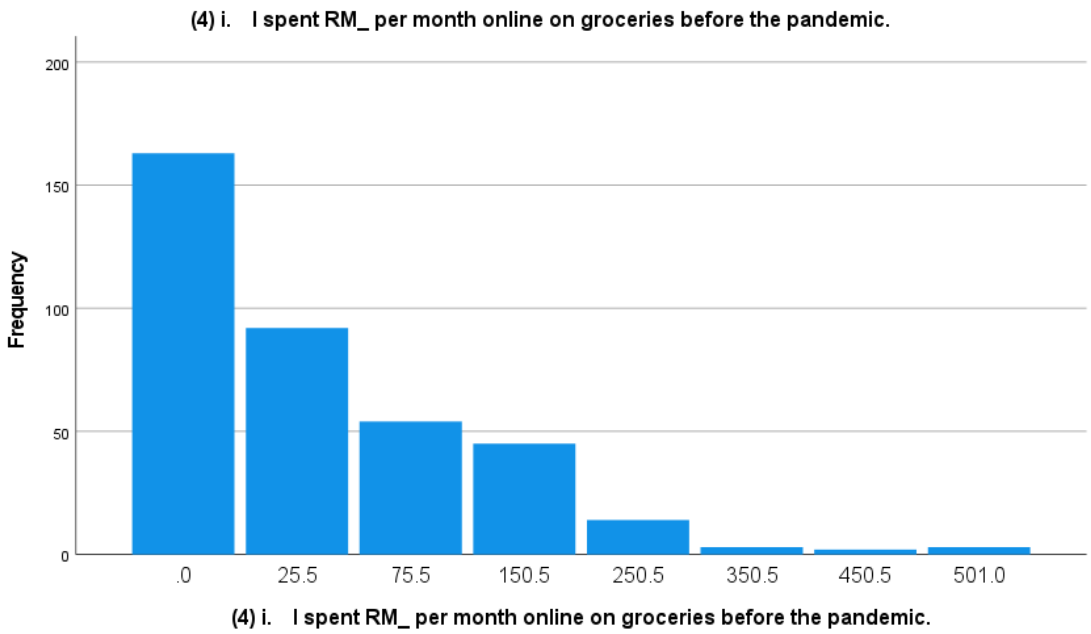
(3) ii. I spent RM_ per month online on branded products during the pandemic.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	143	38.0	38.0	38.0
	25.5	73	19.4	19.4	57.4
	75.5	54	14.4	14.4	71.8
	150.5	65	17.3	17.3	89.1
	250.5	22	5.9	5.9	94.9
	350.5	7	1.9	1.9	96.8
	450.5	3	.8	.8	97.6
	550.5	3	.8	.8	98.4
	601.0	6	1.6	1.6	100.0
	Total	376	100.0	100.0	

Appendix 4.20 Spending per month online on groceries before the pandemic

(4) i. I spent RM_ per month online on groceries before the pandemic.

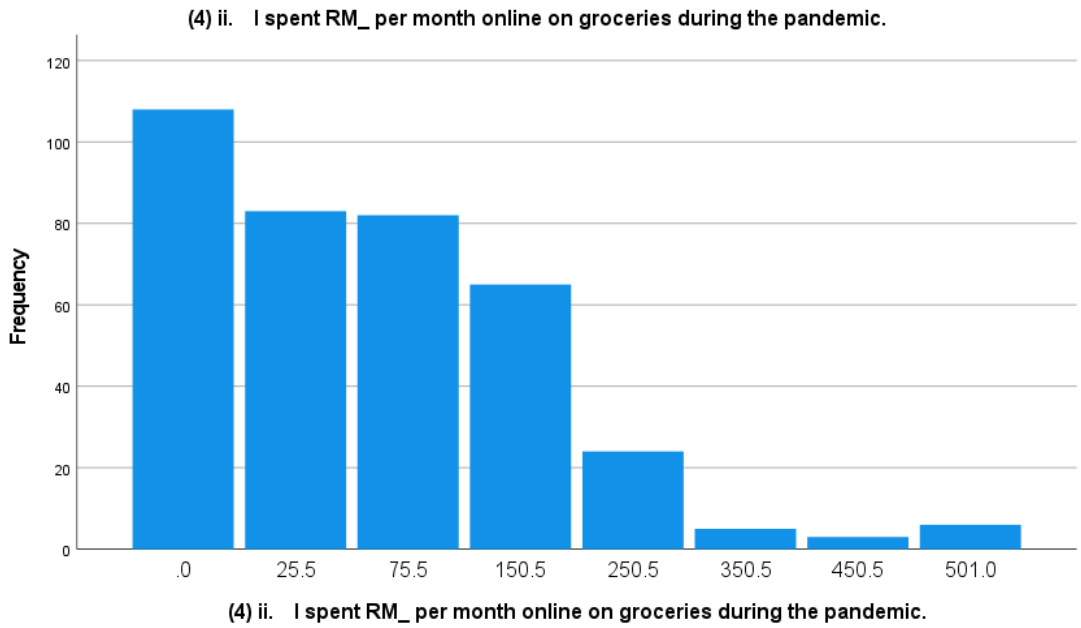
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	163	43.4	43.4	43.4
	25.5	92	24.5	24.5	67.8
	75.5	54	14.4	14.4	82.2
	150.5	45	12.0	12.0	94.1
	250.5	14	3.7	3.7	97.9
	350.5	3	.8	.8	98.7
	450.5	2	.5	.5	99.2
	501.0	3	.8	.8	100.0
	Total	376	100.0	100.0	



Appendix 4.21 Spending per month online on groceries during the pandemic

(4) ii. I spent RM_ per month online on groceries during the pandemic.

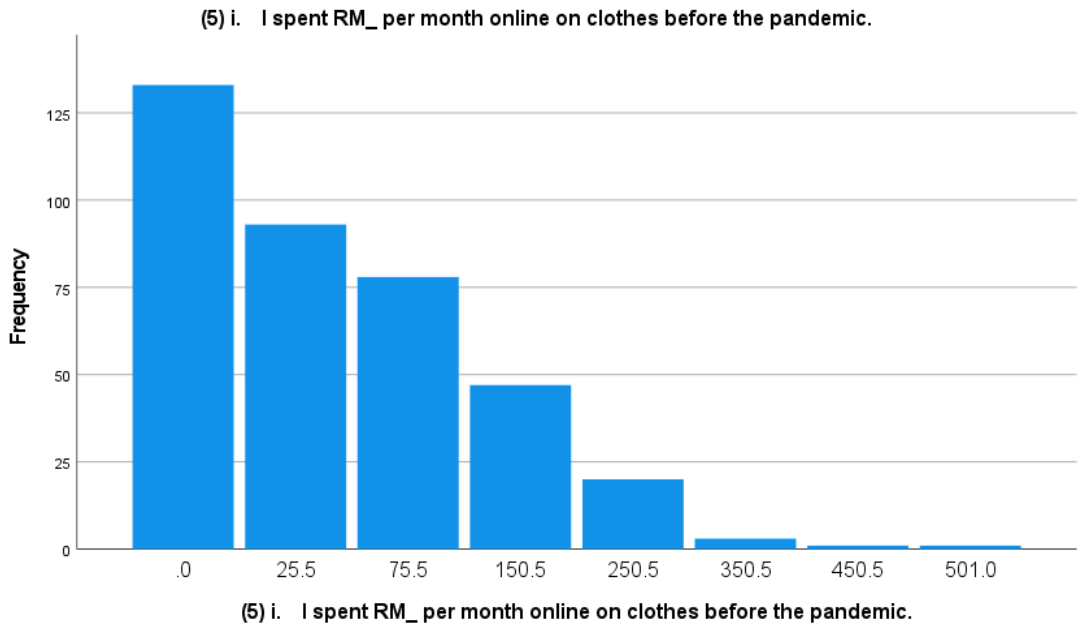
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	108	28.7	28.7	28.7
	25.5	83	22.1	22.1	50.8
	75.5	82	21.8	21.8	72.6
	150.5	65	17.3	17.3	89.9
	250.5	24	6.4	6.4	96.3
	350.5	5	1.3	1.3	97.6
	450.5	3	.8	.8	98.4
	501.0	6	1.6	1.6	100.0
	Total	376	100.0	100.0	



Appendix 4.22 Spending per month online on clothes before the pandemic

(5) i. I spent RM_ per month online on clothes before the pandemic.

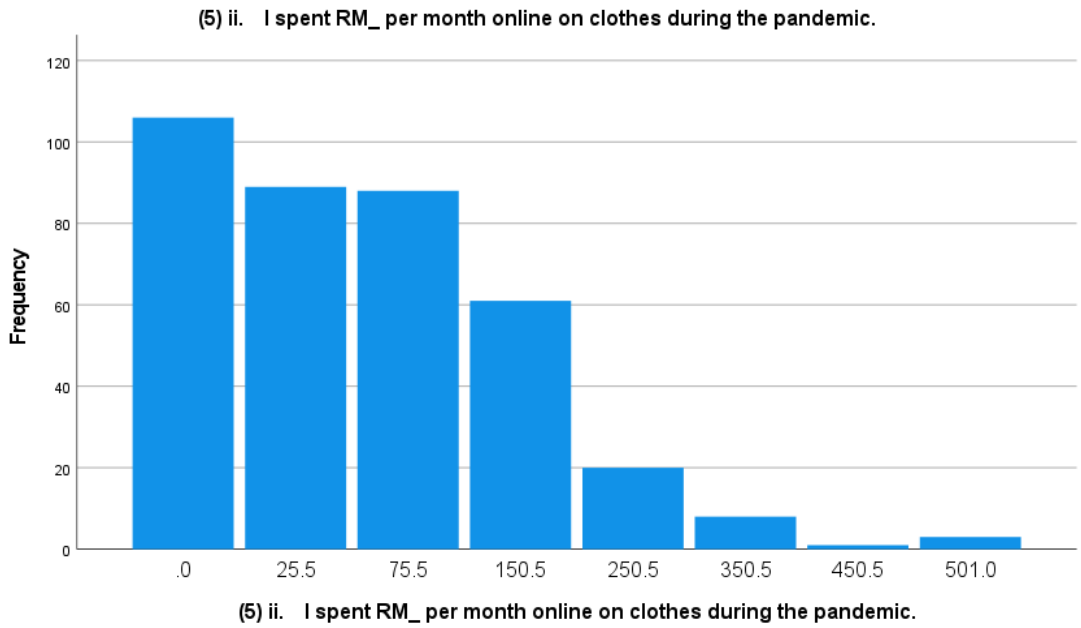
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	133	35.4	35.4	35.4
	25.5	93	24.7	24.7	60.1
	75.5	78	20.7	20.7	80.9
	150.5	47	12.5	12.5	93.4
	250.5	20	5.3	5.3	98.7
	350.5	3	.8	.8	99.5
	450.5	1	.3	.3	99.7
	501.0	1	.3	.3	100.0
	Total	376	100.0	100.0	



Appendix 4.23 Spending per month online on clothes during the pandemic

(5) ii. I spent RM_ per month online on clothes during the pandemic.

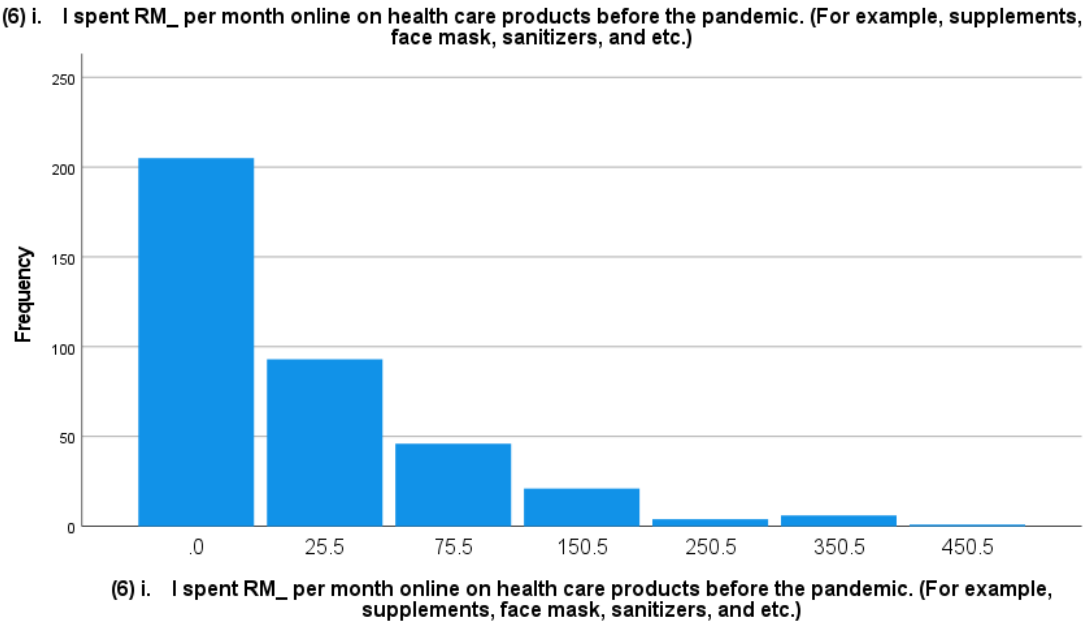
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	106	28.2	28.2	28.2
	25.5	89	23.7	23.7	51.9
	75.5	88	23.4	23.4	75.3
	150.5	61	16.2	16.2	91.5
	250.5	20	5.3	5.3	96.8
	350.5	8	2.1	2.1	98.9
	450.5	1	.3	.3	99.2
	501.0	3	.8	.8	100.0
	Total	376	100.0	100.0	



Appendix 4.24 Spending per month online on health care products before the pandemic

(6) i. I spent RM_ per month online on health care products before the pandemic. (For example, supplements, face mask, sanitizers, and etc.)

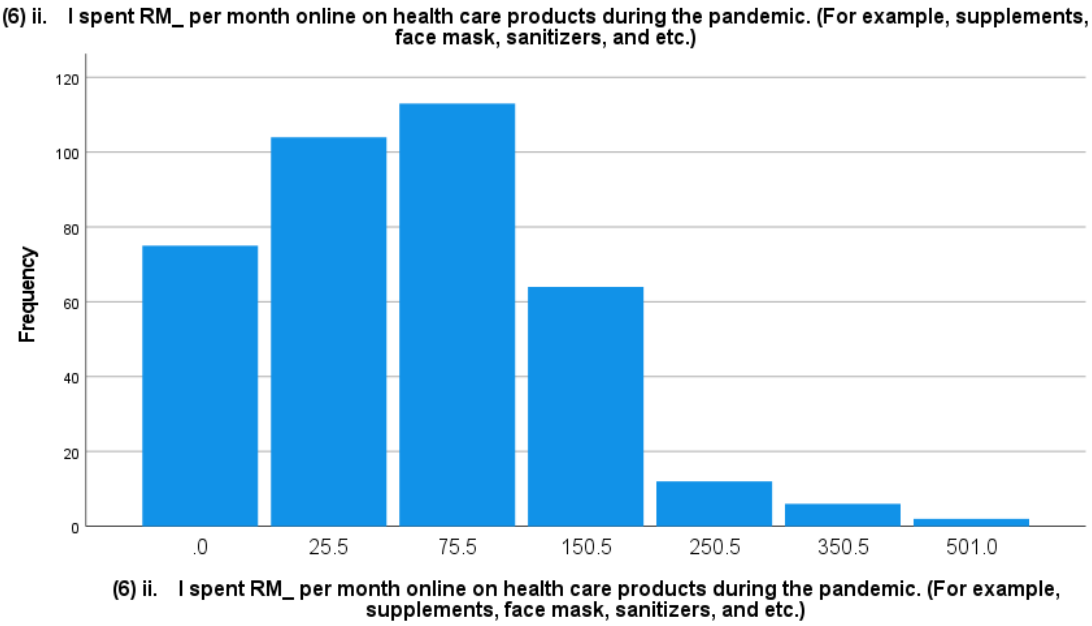
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	205	54.5	54.5	54.5
	25.5	93	24.7	24.7	79.3
	75.5	46	12.2	12.2	91.5
	150.5	21	5.6	5.6	97.1
	250.5	4	1.1	1.1	98.1
	350.5	6	1.6	1.6	99.7
	450.5	1	.3	.3	100.0
	Total	376	100.0	100.0	



Appendix 4.25 Spending per month online on health care products during the pandemic

(6) ii. I spent RM_ per month online on health care products during the pandemic. (For example, supplements, face mask, sanitizers, and etc.)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	75	19.9	19.9	19.9
	25.5	104	27.7	27.7	47.6
	75.5	113	30.1	30.1	77.7
	150.5	64	17.0	17.0	94.7
	250.5	12	3.2	3.2	97.9
	350.5	6	1.6	1.6	99.5
	501.0	2	.5	.5	100.0
	Total	376	100.0	100.0	



Appendix 4.26 Price Elasticity Frequency and Percentage

Statistics

		VAR001	VAR002	VAR003	VAR004	VAR005	VAR006
N	Valid	376	376	376	376	376	376
	Missing	0	0	0	0	0	0
Mode		strongly agree	agree	neutral	agree	agree	agree

i. I compare prices whenever I buy a product

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	.3%	.3%	.3%
	disagree	6	1.6%	1.6%	1.9%
	neutral	31	8.2%	8.2%	10.1%
	agree	143	38.0%	38.0%	48.1%
	strongly agree	195	51.9%	51.9%	100.0%
Total		376	100.0%		

ii. I noticed when there is an increase in price when I buy goods.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	5	1.3%	1.3%	1.3%
	disagree	20	5.3%	5.3%	6.6%
	neutral	66	17.6%	17.6%	24.2%
	agree	161	42.8%	42.8%	67.0%
	strongly agree	124	33.0%	33.0%	100.0%
Total		376	100.0%		

iii. I am upset whenever I miss a discount on a product.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	13	3.5%	3.5%	3.5%
	disagree	33	8.8%	8.8%	12.2%
	neutral	125	33.2%	33.2%	45.5%
	agree	117	31.1%	31.1%	76.6%
	strongly agree	88	23.4%	23.4%	100.0%
Total		376	100.0%		

iv. I make an effort to buy the best quality in a product.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	0.3%	0.3%	.3%
	disagree	5	1.3%	1.3%	1.6%
	neutral	72	19.1%	19.1%	20.7%
	agree	180	47.9%	47.9%	68.6%
	strongly agree	118	31.4%	31.4%	100.0%
Total		376	100.0%		

v. I have a reference price for a particular good. (For example, box tissues should not cost more than RM 10.)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	11	2.9%	2.9%	2.9%
	disagree	43	11.4%	11.4%	14.4%
	neutral	88	23.4%	23.4%	37.8%
	agree	139	37.0%	37.0%	74.7%
	strongly agree	95	25.3%	25.3%	100.0%
Total		376	100.0%		

vi. I find it important that the goods that I buy are cheap.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.5%	.5%	.5%
	disagree	30	8.0%	8.0%	8.5%
	neutral	133	35.4%	35.4%	43.9%
	agree	142	37.8%	37.8%	81.6%
	strongly agree	69	18.4%	18.4%	100.0%
Total		376	100.0%		

Appendix 4.27 Price Elasticity Mean and Standard Deviation

Descriptive Statistics

	N	Mean	Std Dev	Minimum	Maximum
VAR001	376	4.40	.73	strongly disagree	strongly agree
VAR002	376	4.01	.92	strongly disagree	strongly agree
VAR003	376	3.62	1.04	strongly disagree	strongly agree
VAR004	376	4.09	.76	strongly disagree	strongly agree
VAR005	376	3.70	1.06	strongly disagree	strongly agree
VAR006	376	3.65	.89	strongly disagree	strongly agree
Valid N (listwise)	376				
Missing N (listwise)	0				

Appendix 4.28 Peer Influence Frequency and Percentage

Statistics

		VAR007	VAR008	VAR009	VAR010	VAR011	VAR012
N	Valid	376	376	376	376	376	376
	Missing	0	0	0	0	0	0
Mode		agree	neutral	neutral	agree	disagree	neutral

i. I always seek advice from my friends before purchasing any luxury products.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	36	9.6%	9.6%	9.6%
	disagree	59	15.7%	15.7%	25.3%
	neutral	86	22.9%	22.9%	48.1%
	agree	127	33.8%	33.8%	81.9%
	strongly agree	68	18.1%	18.1%	100.0%
Total		376	100.0%		

ii. My friend's opinion matters to me the most when it comes to purchasing a product.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	44	11.7%	11.7%	11.7%
	disagree	85	22.6%	22.6%	34.3%
	neutral	126	33.5%	33.5%	67.8%
	agree	93	24.7%	24.7%	92.6%
	strongly agree	28	7.4%	7.4%	100.0%
Total		376	100.0%		

iii. I will buy the products (or brands) that my friends have bought.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	69	18.4%	18.4%	18.4%
	disagree	94	25.0%	25.0%	43.4%
	neutral	124	33.0%	33.0%	76.3%
	agree	67	17.8%	17.8%	94.1%
	strongly agree	22	5.9%	5.9%	100.0%
Total		376	100.0%		

iv. I spend more when I hang out with friends.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	29	7.7%	7.7%	7.7%
	disagree	51	13.6%	13.6%	21.3%
	neutral	101	26.9%	26.9%	48.1%
	agree	127	33.8%	33.8%	81.9%
	strongly agree	68	18.1%	18.1%	100.0%
Total		376	100.0%		

v. My friends influence me to purchase trendy products.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	80	21.3%	21.3%	21.3%
	disagree	114	30.3%	30.3%	51.6%
	neutral	111	29.5%	29.5%	81.1%
	agree	51	13.6%	13.6%	94.7%
	strongly disagree	20	5.3%	5.3%	100.0%
Total		376	100.0%		

vi. My friends often ask me to buy things together to get a discount.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	62	16.5%	16.5%	16.5%
	disagree	72	19.1%	19.1%	35.6%
	neutral	110	29.3%	29.3%	64.9%
	agree	104	27.7%	27.7%	92.6%
	strongly agree	28	7.4%	7.4%	100.0%
Total		376	100.0%		

Appendix 4.29 Peer Influence Mean and Standard Deviation

Descriptive Statistics

	N	Mean	Std Dev	Minimum	Maximum
VAR001	376	3.35	1.22	strongly disagree	strongly agree
VAR002	376	2.94	1.11	strongly disagree	strongly agree
VAR003	376	2.68	1.14	strongly disagree	strongly agree
VAR004	376	3.41	1.16	strongly disagree	strongly agree
VAR005	376	2.51	1.13	strongly disagree	strongly disagree
VAR006	376	2.90	1.19	strongly disagree	strongly agree
Valid N (listwise)	376				
Missing N (listwise)	0				

Appendix 4.30 Reliability Test

Price Elasticity

Case Processing Summary

		N	%
Cases	Valid	376	100.0
	Excluded[a]	0	.0
	Total	376	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.684	.693	6

Item Statistics

	Mean	Std. Deviation	N
i) I compare prices whenever I buy a product	4.40	.730	376
ii. I noticed when there is an increase in price when I buy goods.	4.01	.916	376
iii. I am upset whenever I miss a discount on a product.	3.62	1.044	376

iv. I make an effort to buy the best quality in a product.	4.09	.759	376
v. I have a reference price for a particular good. (For example, box tissues should not cost more than RM 10.)	3.70	1.059	376
vi. I find it important that the goods that I buy are cheap.	3.65	.887	376

Inter-Item Correlation Matrix

	i) I compare prices whenever I buy a product	ii. I noticed when there is an increase in price when I buy goods.	iii. I am upset whenever I miss a discount on a product.	iv. I make an effort to buy the best quality in a product.	v. I have a reference price for a particular good. (For example, box tissues should not cost more than RM 10.)	vi. I find it important that the goods that I buy are cheap.
i) I compare prices whenever I buy a product	1.000	.414	.284	.283	.281	.294
ii. I noticed when there is an increase in price when I buy goods.	.414	1.000	.257	.286	.321	.213

iii. I am upset whenever I miss a discount on a product.	.284	.257	1.000	.237	.161	.299
iv. I make an effort to buy the best quality in a product.	.283	.286	.237	1.000	.238	.168
v. I have a reference price for a particular good. (For example, box tissues should not cost more than RM 10.)	.281	.321	.161	.238	1.000	.364
vi. I find it important that the goods that I buy are cheap.	.294	.213	.299	.168	.364	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.912	3.622	4.396	.774	1.214	.094	6
Inter-Item Correlations	.273	.161	.414	.253	2.570	.004	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
i) I compare prices whenever I buy a product	19.07	8.853	.487	.256	.627
ii. I noticed when there is an increase in price when I buy goods.	19.46	8.249	.459	.248	.628
iii. I am upset whenever I miss a discount on a product.	19.85	8.204	.370	.164	.662
iv. I make an effort to buy the best quality in a product.	19.38	9.229	.368	.147	.658
v. I have a reference price for a particular good. (For example, box tissues should not cost more than RM 10.)	19.77	7.901	.417	.215	.645
vi. I find it important that the goods that I buy are cheap.	19.82	8.524	.423	.213	.640

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
23.47	11.503	3.392	6

Peer Influence

Case Processing Summary

		N	%
Cases	Valid	376	100.0
	Excluded[a]	0	.0
	Total	376	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.829	.831	6

Item Statistics

	Mean	Std. Deviation	N
i. I always seek advice from my friends before purchasing any luxury products.	3.35	1.217	376
ii. My friendâ€™s opinion matters to me the most when it comes to purchasing a product.	2.94	1.113	376

iii. I will buy the products (or brands) that my friends have bought.	2.68	1.138	376
iv. I spend more when I hang out with friends.	3.41	1.158	376
v. My friends influence me to purchase trendy products.	2.51	1.127	376
vi. My friends often ask me to buy things together to get a discount.	2.90	1.192	376

Inter-Item Correlation Matrix

	i. I always seek advice from my friends before purchasing any luxury products.	ii. My friendâ€™s opinion matters to me the most when it comes to purchasing a product.	iii. I will buy the products (or brands) that my friends have bought.	iv. I spend more when I hang out with friends.	v. My friends influence me to purchase trendy products.	vi. My friends often ask me to buy things together to get a discount.
i. I always seek advice from my friends before purchasing any luxury products.	1.000	.684	.520	.274	.409	.319

ii. My friendâ€™s opinion matters to me the most when it comes to purchasing a product.	.684	1.000	.638	.271	.545	.442
iii. I will buy the products (or brands) that my friends have bought.	.520	.638	1.000	.341	.584	.461
iv. I spend more when I hang out with friends.	.274	.271	.341	1.000	.425	.268
v. My friends influence me to purchase trendy products.	.409	.545	.584	.425	1.000	.563
vi. My friends often ask me to buy things together to get a discount.	.319	.442	.461	.268	.563	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.965	2.513	3.410	.896	1.357	.128	6
Inter-Item Correlations	.450	.268	.684	.416	2.551	.018	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
i. I always seek advice from my friends before purchasing any luxury products.	14.44	18.429	.585	.485	.805
ii. My friendâ€™s opinion matters to me the most when it comes to purchasing a product.	14.86	18.081	.709	.606	.779
iii. I will buy the products (or brands) that my friends have bought.	15.11	18.022	.694	.509	.782
iv. I spend more when I hang out with friends.	14.38	20.466	.403	.202	.840
v. My friends influence me to purchase trendy products.	15.28	18.148	.688	.512	.783
vi. My friends often ask me to buy things together to get a discount.	14.89	19.006	.539	.353	.814

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
17.79	26.026	5.102	6

Appendix 4.31 Pearson's Correlation Analysis Results

Pearson Correlations

		Spending during pandemic	Price Elasticity	Peer Influence	Family income	Financial Literacy
Spending during pandemic	Pearson Correlation	1	-.026	.078	.105*	-.026
	Sig. (2-tailed)		.612	.132	.041	.613
	N	376	376	376	376	376
Price Elasticity	Pearson Correlation	-.026	1	.222**	.038	.054
	Sig. (2-tailed)	.612		<.001	.463	.299
	N	376	450	450	376	376
Peer Influence	Pearson Correlation	.078	.222**	1	.041	-.077
	Sig. (2-tailed)	.132	<.001		.423	.136
	N	376	450	450	376	376
Family income	Pearson Correlation	.105*	.038	.041	1	.077
	Sig. (2-tailed)	.041	.463	.423		.139
	N	376	376	376	376	376
Financial Literacy	Pearson Correlation	-.026	.054	-.077	.077	1
	Sig. (2-tailed)	.613	.299	.136	.139	
	N	376	376	376	376	376

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix 4.32 Summary of Multiple Linear Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Financial Literacy, Price Elasticity, Family income, Peer Influence[b]	.	Enter

a. Dependent Variable: Spending per month during pandemic

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.137[a]	.019	.008	253.1097

a. Predictors: (Constant), Financial Literacy, Price Elasticity, Family income, Peer Influence

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	455939.977	4	113984.994	1.779	.132[b]
	Residual	23767944.148	371	64064.539		
	Total	24223884.125	375			

a. Dependent Variable: Spending per month during pandemic
b. Predictors: (Constant), Financial Literacy, Price Elasticity, Family income, Peer Influence

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	345.878	145.625		2.375	.018
	Price Elasticity	-20.636	27.319	-.039	-.755	.451
	Peer Influence	26.771	18.189	.077	1.472	.142
	Family income	.013	.006	.106	2.046	.041
	Financial Literacy	-5.936	11.744	-.026	-.505	.614

a. Dependent Variable: Spending per month during pandemic

Appendix 4.33 Summary of Ordinary Least Square

Q1

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	(1) i. I spent RM_ per month online on leisure before the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)[b]	.	Enter

a. Dependent Variable: (1) ii. I spent RM_ per month online on leisure during the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.568[a]	.323	.321	63.4447

a. Predictors: (Constant), (1) i. I spent RM_ per month online on leisure before the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	718162.121	1	718162.121	178.415	<.001[b]
	Residual	1505436.548	374	4025.231		
	Total	2223598.670	375			

a. Dependent Variable: (1) ii. I spent RM_ per month online on leisure during the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)
b. Predictors: (Constant), (1) i. I spent RM_ per month online on leisure before the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	21.866	3.789		5.771	<.001
	(1) i. I spent RM_ per month online on leisure before the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)	.580	.043	.568	13.357	<.001

a. Dependent Variable: (1) ii. I spent RM_ per month online on leisure during the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)

Q2

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	(2) i. I spent RM_ per month on ordering food from e-hailing apps before the pandemic.[b]	.	Enter

a. Dependent Variable: (2) ii. I spent RM_ per month on ordering food from e-hailing apps during the pandemic.
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.525[a]	.276	.274	83.1060

a. Predictors: (Constant), (2) i. I spent RM_ per month on ordering food from e-hailing apps before the pandemic.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	983287.851	1	983287.851	142.369	<.001[b]
	Residual	2583069.809	374	6906.604		
	Total	3566357.660	375			

a. Dependent Variable: (2) ii. I spent RM_ per month on ordering food from e-hailing apps during the pandemic.
b. Predictors: (Constant), (2) i. I spent RM_ per month on ordering food from e-hailing apps before the pandemic.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	50.017	5.272		9.487	<.001
	(2) i. I spent RM_ per month on ordering food from e-hailing apps before the pandemic.	.664	.056	.525	11.932	<.001

a. Dependent Variable: (2) ii. I spent RM_ per month on ordering food from e-hailing apps during the pandemic.

Q3

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	(3) i. I spent RM_ per month online on branded products before the pandemic.[b]	.	Enter

a. Dependent Variable: (3) ii. I spent RM_ per month online on branded products during the pandemic.
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.624[a]	.390	.388	93.1117

a. Predictors: (Constant), (3) i. I spent RM_ per month online on branded products before the pandemic.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2069872.198	1	2069872.198	238.746	<.001[b]
	Residual	3242498.185	374	8669.781		
	Total	5312370.382	375			

a. Dependent Variable: (3) ii. I spent RM_ per month online on branded products during the pandemic.
b. Predictors: (Constant), (3) i. I spent RM_ per month online on branded products before the pandemic.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	35.604	5.615		6.341	<.001
	(3) i. I spent RM_ per month online on branded products before the pandemic.	.660	.043	.624	15.451	<.001

a. Dependent Variable: (3) ii. I spent RM_ per month online on branded products during the pandemic.

Q4

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	(4) i. I spent RM_ per month online on groceries before the pandemic.[b]	.	Enter

a. Dependent Variable: (4) ii. I spent RM_ per month online on groceries during the pandemic.
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.665[a]	.442	.440	75.3106

a. Predictors: (Constant), (4) i. I spent RM_ per month online on groceries before the pandemic.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1679992.633	1	1679992.633	296.207	<.001[b]
	Residual	2121212.527	374	5671.691		
	Total	3801205.160	375			

a. Dependent Variable: (4) ii. I spent RM_ per month online on groceries during the pandemic.
b. Predictors: (Constant), (4) i. I spent RM_ per month online on groceries before the pandemic.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	38.157	4.593		8.308	<.001
	(4) i. I spent RM_ per month online on groceries before the pandemic.	.787	.046	.665	17.211	<.001

a. Dependent Variable: (4) ii. I spent RM_ per month online on groceries during the pandemic.

Q5

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	(5) i. I spent RM_ per month online on clothes before the pandemic.[b]	.	Enter

a. Dependent Variable: (5) ii. I spent RM_ per month online on clothes during the pandemic.
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.549[a]	.302	.300	75.7193

a. Predictors: (Constant), (5) i. I spent RM_ per month online on clothes before the pandemic.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	926094.545	1	926094.545	161.526	<.001[b]
	Residual	2144295.465	374	5733.410		
	Total	3070390.010	375			

a. Dependent Variable: (5) ii. I spent RM_ per month online on clothes during the pandemic.
b. Predictors: (Constant), (5) i. I spent RM_ per month online on clothes before the pandemic.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	36.541	4.897		7.462	<.001
	(5) i. I spent RM_ per month online on clothes before the pandemic.	.632	.050	.549	12.709	<.001

a. Dependent Variable: (5) ii. I spent RM_ per month online on clothes during the pandemic.

Q6

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	(6) i. I spent RM_ per month online on health care products before the pandemic. (For example, supplements, face mask, sanitizers, and etc.)[b]	.	Enter

a. Dependent Variable: (6) ii. I spent RM_ per month online on health care products during the pandemic. (For example, supplements, face mask, sanitizers, and etc.)

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.494[a]	.244	.242	67.0500

a. Predictors: (Constant), (6) i. I spent RM_ per month online on health care products before the pandemic. (For example, supplements, face mask, sanitizers, and etc.)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	543797.316	1	543797.316	120.959	<.001[b]
	Residual	1681391.130	374	4495.698		
	Total	2225188.446	375			

a. Dependent Variable: (6) ii. I spent RM_ per month online on health care products during the pandemic. (For example, supplements, face mask, sanitizers, and etc.)
b. Predictors: (Constant), (6) i. I spent RM_ per month online on health care products before the pandemic. (For example, supplements, face mask, sanitizers, and etc.)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	51.952	3.893		13.346	<.001
	(6) i. I spent RM_ per month online on health care products before the pandemic. (For example, supplements, face mask, sanitizers, and etc.)	.589	.054	.494	10.998	<.001

a. Dependent Variable: (6) ii. I spent RM_ per month online on health care products during the pandemic. (For example, supplements, face mask, sanitizers, and etc.)

Appendix 4.34 Spending per month online on leisure before and during the pandemic

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	(1) i. I spent RM_ per month online on leisure before the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)	44.039	376	75.5079	3.8940
	(1) ii. I spent RM_ per month online on leisure during the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)	47.390	376	77.0039	3.9712

Paired Samples Correlations

		N	Correlation	Significance One-Sided p	Significance Two-Sided p
Pair 1	(1) i. I spent RM_ per month online on leisure before the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.) & (1) ii. I spent RM_ per month online on leisure during the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)	376	.568	<.001	<.001

Paired Samples Test

		Paired Differences					t	df	Significance	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			One-Sided p	Two-Sided p
Pair 1	(1) i. I spent RM_ per month online on leisure before the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.) - (1) ii. I spent RM_ per month online on leisure during the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)	-3.3511	70.8683	3.6548	-10.5374	3.8353	-.917	375	.180	.360

Paired Samples Effect Sizes

			Standardizer [a]	Point Estimate	95% Confidence Interval Lower	Upper
Pair 1	(1) i. I spent RM_ per month online on leisure before the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.) - (1) ii. I spent RM_ per month online on leisure during the pandemic. (For example, Netflix, Spotify subscriptions, games, and etc.)	Cohen's d	70.8683	-.047	-.148	.054
		Hedges' correction	71.0104	-.047	-.148	.054

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Appendix 4.35 Spending per month on ordering food from e-hailing apps before and during the pandemic.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	(2) i. I spent RM_ per month on ordering food from e-hailing apps before the pandemic.	55.165	376	77.1136	3.9768
	(2) ii. I spent RM_ per month on ordering food from e-hailing apps during the pandemic.	86.649	376	97.5207	5.0292

Paired Samples Correlations

		N	Correlation	Significance One-Sided p	Significance Two-Sided p
Pair 1	(2) i. I spent RM_ per month on ordering food from e-hailing apps before the pandemic. & (2) ii. I spent RM_ per month on ordering food from e-hailing apps during the pandemic.	376	.525	<.001	<.001

Paired Samples Test

		Paired Differences					t	df	Significance	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			One-Sided p	Two-Sided p
Pair 1	(2) i. I spent RM_ per month on ordering food from e-hailing apps before the pandemic. - (2) ii. I spent RM_ per month on ordering food from e-hailing apps during the pandemic.	-31.4840	86.9446	4.4838	-40.3006	-22.6674	-7.022	375	<.001	<.001

Paired Samples Effect Sizes

			Standardizer [a]	Point Estimate	95% Confidence Interval Lower	Upper
Pair 1	(2) i. I spent RM_ per month on ordering food from e-hailing apps before the pandemic. - (2) ii. I spent RM_ per month on ordering food from e-hailing apps during the pandemic.	Cohen's d	86.9446	-.362	-.466	-.258
		Hedges' correction	87.1190	-.361	-.465	-.257

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Appendix 4.36 Spending per month online on branded products before and during the pandemic.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	(3) i. I spent RM_ per month online on branded products before the pandemic.	68.181	376	112.6508	5.8095
	(3) ii. I spent RM_ per month online on branded products during the pandemic.	80.570	376	119.0224	6.1381

Paired Samples Correlations

		N	Correlation	Significance One-Sided p	Significance Two-Sided p
Pair 1	(3) i. I spent RM_ per month online on branded products before the pandemic. & (3) ii. I spent RM_ per month online on branded products during the pandemic.	376	.624	<.001	<.001

Paired Samples Test

		Paired Differences					t	df	Significance	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			One-Sided p	Two-Sided p
Pair 1	(3) i. I spent RM_ per month online on branded products before the pandemic. - (3) ii. I spent RM_ per month online on branded products during the pandemic.	-12.3896	100.5876	5.1874	-22.5897	-2.1896	-2.388	375	.009	.017

Paired Samples Effect Sizes

			Standardizer [a]	Point Estimate	95% Confidence Interval Lower	Upper
Pair 1	(3) i. I spent RM_ per month online on branded products before the pandemic. - (3) ii. I spent RM_ per month online on branded products during the pandemic.	Cohen's d	100.5876	-.123	-.225	-.022
		Hedges' correction	100.7894	-.123	-.224	-.022

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Appendix 4.37 Spending per month online on groceries before and during the pandemic.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	(4) i. I spent RM_ per month online on groceries before the pandemic.	53.612	376	85.0435	4.3858

	(4) ii. I spent RM_ per month online on groceries during the pandemic.	80.351	376	100.6804	5.1922

Paired Samples Correlations

		N	Correlation	Significance One-Sided p	Significance Two-Sided p
Pair 1	(4) i. I spent RM_ per month online on groceries before the pandemic. & (4) ii. I spent RM_ per month online on groceries during the pandemic.	376	.665	<.001	<.001

Paired Samples Test

		Paired Differences					t	df	Significance One-Sided p	Significance Two-Sided p
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper				
Pair 1	(4) i. I spent RM_ per month online on groceries before the pandemic. - (4) ii. I spent RM_ per month online on groceries during the pandemic.	-26.7394	77.3600	3.9895	-34.5840	-18.8947	-6.702	375	<.001	<.001

Paired Samples Effect Sizes

			Standardizer[a]	Point Estimate	95% Confidence Interval	
					Lower	Upper
Pair 1	(4) i. I spent RM_ per month online on groceries before the pandemic. - (4) ii. I spent RM_ per month online on groceries during the pandemic.	Cohen's d	77.3600	-.346	-.449	-.241
		Hedges' correction	77.5152	-.345	-.449	-.241

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Appendix 4.38 Spending per month online on clothes before and during the pandemic.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	(5) i. I spent RM_ per month online on clothes before the pandemic.	59.434	376	78.6384	4.0555
	(5) ii. I spent RM_ per month online on clothes during the pandemic.	74.100	376	90.4859	4.6665

Paired Samples Correlations

		N	Correlation	Significance One-Sided p	Significance Two-Sided p
Pair 1	(5) i. I spent RM_ per month online on clothes before the pandemic. & (5) ii. I spent RM_ per month online on clothes during the pandemic.	376	.549	<.001	<.001

Paired Samples Test

		Paired Differences					t	df	Significance One-Sided p	Significance Two-Sided p
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper				
Pair 1	(5) i. I spent RM_ per month online on clothes before the pandemic. - (5) ii. I spent RM_ per month online on clothes during the pandemic.	-14.6662	80.9682	4.1756	-22.8768	-6.4557	-3.512	375	<.001	<.001

Paired Samples Effect Sizes

			Standardizer[a]	Point Estimate	95% Confidence Interval Lower	95% Confidence Interval Upper
Pair 1	(5) i. I spent RM_ per month online on clothes before the pandemic. - (5) ii. I spent RM_ per month online on clothes during the pandemic.	Cohen's d	80.9682	-.181	-.283	-.079
		Hedges' correction	81.1306	-.181	-.282	-.079

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Appendix 4.39 Spending per month online on health care products before and during the pandemic.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	(6) i. I spent RM_ per month online on health care products before the pandemic. (For example, supplements, face mask, sanitizers, and etc.)	33.406	376	64.7004	3.3367
	(6) ii. I spent RM_ per month online on health care products during the pandemic. (For example, supplements, face mask, sanitizers, and etc.)	71.613	376	77.0314	3.9726

Paired Samples Correlations

		N	Correlation	Significance One-Sided p	Significance Two-Sided p
Pair 1	(6) i. I spent RM_ per month online on health care products before the pandemic. (For example, supplements, face mask, sanitizers, and etc.) & (6) ii. I spent RM_ per month online on health care products during the pandemic. (For example, supplements, face mask, sanitizers, and etc.)	376	.494	<.001	<.001

Paired Samples Test

		Paired Differences					t	df	Significance One-Sided p	Significance Two-Sided p
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper				
Pair 1	(6) i. I spent RM_ per month online on health care products before the pandemic. (For example, supplements, face mask, sanitizers, and etc.) - (6) ii. I spent RM_ per month online on health care products during the pandemic. (For example, supplements, face mask, sanitizers, and etc.)	-38.2074	72.0578	3.7161	-45.5144	-30.9004	-10.282	375	<.001	<.001

Paired Samples Effect Sizes

			Standardizer[a]	Point Estimate	95% Confidence Interval Lower	95% Confidence Interval Upper
Pair 1	(6) i. I spent RM_ per month online on health care products before the pandemic. (For example, supplements, face mask, sanitizers, and etc.) - (6) ii. I spent RM_ per month online on health care products during the pandemic. (For example, supplements, face mask, sanitizers, and etc.)	Cohen's d	72.0578	-.530	-.638	-.422
		Hedges' correction	72.2023	-.529	-.637	-.421

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Appendix 4.40 Summary of Variance Inflation Factor

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1	(Constant)	345.878	145.625		2.375	.018		
	Price elasticity	-20.636	27.319	-.039	-.755	.451	.976	1.024
	Peer Influence	26.771	18.189	.077	1.472	.142	.972	1.028
	Family income	.013	.006	.106	2.046	.041	.991	1.009
	Financial Literacy	-5.936	11.744	-.026	-.505	.614	.984	1.016

a. Dependent Variable: Spending per month during pandemic

Appendix 4.41 Summary of Durbin Watson test.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.137[a]	.019	.008	253.1097	1.96

a. Predictors: (Constant), Financial Literacy, Price elasticity, Family income, Peer Influence
b. Dependent Variable: Spending per month during pandemic

Appendix 4.42 Summary of Breusch-Pagan-Godfrey

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	2.189999	Prob. F(4,371)	0.0696
Obs*R-squared	8.673263	Prob. Chi-Square(4)	0.0698
Scaled explained SS	8.389529	Prob. Chi-Square(4)	0.0783

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 04/14/22 Time: 03:31
Sample: 1 376
Included observations: 376

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.351584	0.466671	0.753388	0.4517
LOG(PRICE ELASTICITY)	-0.276370	0.171943	-1.607340	0.1088
LOG(PEER INFLUENCE)	0.188248	0.088724	2.121725	0.0345
LOG(FINANCIAL_LITERACY)	-0.108089	0.102416	-1.055391	0.2919
LOG(FAMILY_INCOME)	0.035636	0.044985	0.792182	0.4288

R-squared	0.023067	Mean dependent var	0.276960
Adjusted R-squared	0.012534	S.D. dependent var	0.390933
S.E. of regression	0.388475	Akaike info criterion	0.960033
Sum squared resid	55.98864	Schwarz criterion	1.012288
Log likelihood	-175.4861	Hannan-Quinn criter.	0.980776
F-statistic	2.189999	Durbin-Watson stat	1.959395
Prob(F-statistic)	0.069574		

Appendix 4.43 Summary of Breusch-Pagan-Godfrey for the reduction of heteroscedasticity

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	2.189999	Prob. F(4,371)	0.0696
Obs*R-squared	8.673263	Prob. Chi-Square(4)	0.0698
Scaled explained SS	8.389529	Prob. Chi-Square(4)	0.0783

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 04/14/22 Time: 03:31
Sample: 1 376
Included observations: 376

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.351584	0.466671	0.753388	0.4517
LOG(PRICE ELASTICITY)	-0.276370	0.171943	-1.607340	0.1088
LOG(PEER INFLUENCE)	0.188248	0.088724	2.121725	0.0345
LOG(FINANCIAL LITERACY)	-0.108089	0.102416	-1.055391	0.2919
LOG(FAMILY INCOME)	0.035636	0.044985	0.792182	0.4288

R-squared	0.023067	Mean dependent var	0.276960
Adjusted R-squared	0.012534	S.D. dependent var	0.390933
S.E. of regression	0.388475	Akaike info criterion	0.960033
Sum squared resid	55.98864	Schwarz criterion	1.012288
Log likelihood	-175.4861	Hannan-Quinn criter.	0.980776
F-statistic	2.189999	Durbin-Watson stat	1.959395
Prob(F-statistic)	0.069574		

(APPENDIX C)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

FYP Progress Report Form

Title of FYP : Spending Behavior of UTAR Undergraduate Students	**Group No: 21M01**

Students		**Supervisor**
Name	**ID No**	
Lai Yee Xiang	1802754	Mr. Kuar Lok Sin
Ting Siew Toong	1804124	
Wong Huey Ying	1804013	

Meeting No.	**Date**	**Work "milestones" / meeting report**	**Student's Signature**	**Supervisor's Signature**
1	11/06/2021	Progression of Chapter- Research topic	*YeeXiang*	
2	14/06/2021	Progression of Chapter 1- Finalized on topic	*YeeXiang*	
3	24/06/2021	Progression of Chapter1- Finalizing on chapter 1	*YeeXiang*	
4	15/07/2021	Progression of Chapter 2- Discussions on literature review	*YeeXiang*	
5	30/07/2021	Progression of Chapter 2- Finalization on literature review	*YeeXiang*	
6	19/08/2021	Progression of Chapter 3- Discussions on questionnaire	*YeeXiang*	
7	28/09/2021	Progression on Questionnaire- Discussion on the reliability and Validity	*YeeXiang*	

8	10/10/2021	Progression on Questionnaire- Discussion on changing questions within the questionnaire	*YeeXiang*	
9	28/20/2021	Progression on Questionnaire- Discussion on scorning system in the questionnaire	*YeeXiang*	
10	16/11/2021	Progression on Questionnaire- Discussion on pilot test	*YeeXiang*	
11	23/11/2021	Progression on Questionnaire- Discussion on the results of the pilot test	*YeeXiang*	
12	24/1/2022	Progression of Chapter 4- Discussions on cleaning the data collected	*YeeXiang*	
13	9/2/2022	Progression of Chapter 4- Discussions on inferential analysis and reliability test.	*YeeXiang*	
14	18/2/2022	Progression of Chapter 4- Discussion difficulties faced while running data in SPSS.	*YeeXiang*	
15	2/03/2022	Progression of Chapter 4- Discussion on the results in the inferential analysis	*YeeXiang*	
16	21/03/2022	Progression of Chapter 5- Discussion on how we should report our data based on different analysis	*YeeXiang*	

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: __1_____ Group No: _21M01_____

FYP Title:
Spending behavior of UTAR undergraduate students _____
_____
_____

Members present:	Members absent:
Lai Yee Xiang 1802754_____	_____
Ting Siew Toong 1804124_____	_____
Wong Huey Ying 1804013_____	_____
_____	_____

Date of the meeting: _11st June 2021___

Issues discussed during the meeting:
Discuss the first idea and topic (Financial literacy of UTAR undergraduate students) that our group had design and shown the work that we had drafted to Mr. Kuar. He put forward some deficiencies in our topic and corrected our problems and work. And he also suggested we make some adjusted on our topic or to change topic as our first idea was a little difficult to continue our research.

_Lai Yee Xiang_____	_Kuar Lok Sin_____
Group Leader's Name:	Supervisor's Name:
_____*YeeXiang*_____	__ *Kuar Lok Sin* _____
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 2 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 14th June 2021

Issues discussed during the meeting:
Discuss the topic that we had changed (Spending and Saving behavior of UTAR undergraduate students) and shown the work that we had done to Mr. Kuar. He raised out some problem on our topic which there was more than one dependent variables and give us some recommend on our independent variables. He also asked us to go through some literature review before we finalize and submit our research topic.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	*Kuar Lok Sin*
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 3 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 24th June 2021

Issues discussed during the meeting:
Briefly present what we had done in Chapter 1 to Mr. Kuar and asked some questions that we confuse. Mr.Kuar also told us about somethings that we need to be focus on while proceeding Chapter 2 and Chapter 3.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	*Kuar Lok Sin*
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 4 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 15th July 2021

Issues discussed during the meeting:
Briefly present what we had done in Chapter 2 to Mr. Kuar and asked some questions that we confuse. Mr.Kuar also corrected some of our mistakes. We request some advice from him for proceeding Chapter 3.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	*Kuar Lok Sin*
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 5 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 30 July 2021

Issues discussed during the meeting:
Briefly present what we had done in Chapter 2 to Mr. Kuar and asked some questions that we confuse. Show the basic idea about our questionnaire to Mr.Kuar, and ask what we are curious about the questionnaire and he also tell us how to design the question in proper way and corrected some of our mistakes. We request some advice from him for proceeding Chapter 3.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	*Kuar Lok Sin*
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 6 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 19 August 2021

Issues discussed during the meeting:
First, we discuss in details about the questionnaire that we had made changes. Then, we also consult about sample size problem that we confuse, and inferential analysis in Chapter 3. We told Mr Kuar that we going to use t-test to test the mean of spending before and during the pandemic, he pointed out that it is not suitable for our study and recommend us to use the OLS method to test it.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	*Kuar Lok Sin*
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 7 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 28th September 2021

Issues discussed during the meeting:
Discussed on how our sources based on our questions in our questionnaires must be valid and reliable. Examples were given to us and we then proceeded to find sources that are reliable and valid.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 8 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 10th October 2021

Issues discussed during the meeting:
Showed Mr. Kuar on our sources that we had found to make sure that they are reliable and valid. Discussed on changing the questions regarding financial literacy to make sure that it is based on knowledge on finance and not the practices of finance that one possesses.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 9 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 28th October 2021

Issues discussed during the meeting:
We presented to Mr. Kuar on the changes that we did on the questions in financial literacy part of the questionnaire and there wasn't a problem with it. However, we also discussed on finding a scoring system for the financial literacy part in the questionnaire.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 10 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 16th November 2021

Issues discussed during the meeting:
Presented to Mr. Kuar about the scoring system that we had found based on the financial literacy part in the questionnaire. We then proceeded to discussed on the process to do a pilot test.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 11 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 23rd November 2021

Issues discussed during the meeting:
Discussed on our results on the pilot test, most of our respondents preferred that we give them multiple choices when it comes to asking them on how much they spend before and during the pandemic. Thus, we decided to change the questions and make it multiple choice instead of letting the respondents state out the amount they spend.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 12 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 24th January 2022

Issues discussed during the meeting:
Presented our data analysis result to Mr. Kuar and discuss how we should summarize the most important information to show in the report and whether we should clean the data to make it look more concise.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 13 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 9th February 2022

Issues discussed during the meeting:
Presented to Mr. Kuar about the data analysis and discussed about how we should conduct our inferential analysis and reliability test.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 14 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 18th February 2022

Issues discussed during the meeting:
Show the difficulties that we had faced when we tried to run the data by SPSS, Mr. Kuar suggest us that we should use the mean of the variables instead of using the range of the figure. As our design questionnaire was giving the option as categories to respondent, hence we need to calculate the average to analyze the data.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 15 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 2nd March 2022

Issues discussed during the meeting:
Discussed on our results on the Pearson Correlation and Multiple Linear Regression, the result we get from SPSS shows that most of the independent variables was insignificant to dependent variables hence we asked about whether we can proceed to interpret and Mr. Kuar told us to proceed but need to justify why it was insignificant.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX B)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
UNDERGRADUATE FINAL YEAR PROJECT [FYP]

Record of Meeting with Supervisor

Meeting No: 16 Group No: 21M01

FYP Title:
Spending behavior of UTAR undergraduate students

Members present:	Members absent:
Lai Yee Xiang 1802754	
Ting Siew Toong 1804124	
Wong Huey Ying 1804013	

Date of the meeting: 21st March 2022

Issues discussed during the meeting:
Presented the different types of data analysis result to Mr. Kuar and discuss whether we can record both of them in to our report and discuss which correlation that suitable to our result but it doesn't matter on which one we decide to use, as long as the purpose is to test whether there is a significant relationship between the dependent variable and independent variables.

Lai Yee Xiang	Kuar Lok Sin
Group Leader's Name:	Supervisor's Name:
YeeXiang	
Group Leader's Signature:	Supervisor's Signature:

(APPENDIX I)

Universiti Tunku Abdul			
Form Title : **Sample of Submission Sheet for FYP/Dissertation/Thesis**			
Form Number : **FM-IAD-004**	Rev No: **0**	Effective Date: **21 June 2011**	Page No: **1 of 1**

FACULTY OF BUSINESS AND FINANCE

UNIVERSITI TUNKU ABDUL RAHMAN

Date: 25/04/2022

SUBMISSION OF FINAL YEAR PROJECT /DISSERTATION/THESIS

It is hereby certified that Lai Yee Xiang (ID No: 1802754) has completed this final year project/ dissertation/ thesis* entitled "Spending Behavior of UTAR Undergraduate Students" under the supervision of Mr. Kuar Lok Sin (*Name of the Supervisor*) from the Department of Economics, Faculty of Business and Finance.

I understand that University will upload softcopy of my final year project / dissertation/ thesis* in pdf format into UTAR Institutional Repository, which may be made accessible to UTAR community and public.

Yours truly,
YeeXiang

_____
(Lai Yee Xiang)

*Delete whichever not applicable

(APPENDIX I)

Universiti Tunku Abdul			
Form Title : **Sample of Submission Sheet for FYP/Dissertation/Thesis**			
Form Number : **FM-IAD-004**	Rev No: **0**	Effective Date: **21 June 2011**	Page No: **1 of 1**

FACULTY OF BUSINESS AND FINANCE

UNIVERSITI TUNKU ABDUL RAHMAN

Date: 25/04/2022

SUBMISSION OF FINAL YEAR PROJECT /DISSERTATION/THESIS

It is hereby certified that Ting Siew Toong (ID No: 1804124) has completed this final year project/ dissertation/ thesis* entitled "Spending Behavior of UTAR Undergraduate Students" under the supervision of Mr. Kuar Lok Sin (*Name of the Supervisor*) from the Department of Economics, Faculty of Business and Finance.

I understand that University will upload softcopy of my final year project / dissertation/ thesis* in pdf format into UTAR Institutional Repository, which may be made accessible to UTAR community and public.

Yours truly,

_____

(Ting Siew Toong)

*Delete whichever not applicable

(APPENDIX I)

Universiti Tunku Abdul			
Form Title : **Sample of Submission Sheet for FYP/Dissertation/Thesis**			
Form Number : **FM-IAD-004**	Rev No: **0**	Effective Date: **21 June 2011**	Page No: **1 of 1**

FACULTY OF BUSINESS AND FINANCE

UNIVERSITI TUNKU ABDUL RAHMAN

Date: 25/04/2022

SUBMISSION OF FINAL YEAR PROJECT /DISSERTATION/THESIS

It is hereby certified that Wong Huey Ying (ID No: 1804013) has completed this final year project/ dissertation/ thesis* entitled "Spending Behavior of UTAR Undergraduate Students" under the supervision of Mr. Kuar Lok Sin (*Name of the Supervisor*) from the Department of Economics, Faculty of Business and Finance.

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Yours truly,

(Wong Huey Ying)

*Delete whichever not applicable

Universiti Tunku Abdul Rahman			
Form Title : Supervisor's Comments on Originality Report Generated by Turnitin for Submission of Final Year Project Report (for Undergraduate Programmes)			
Form Number: FM-IAD-005	Rev No.: 0	Effective Date: 01/10/2013	Page No.: 1of 1

FACULTY OF BUSINESS AND FINANCE

Full Name(s) of Candidate(s)	Lai Yee Xiang, Ting Siew Toong and, Wong Huey Ying
ID Number(s)	1802754, 1804124 and, 1804013
Programme / Course	Financial Economics (FE)
Title of Final Year Project	Spending Behavior of UTAR Undergraduate Students

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Based on the above results, I hereby declare that I am satisfied with the originality of the Final Year Project Report submitted by my student(s) as named above.

Signature of Supervisor

Name : Mr. Kuar Lok Sin

Date : 24/4/2022

Second submission 21M01

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