A STUDY OF FACTORS INFLUENCING THE ADOPTION OF ONLINE GROCERIES SHOPPING AMONG GENERATION X IN KLANG VALLEY

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OF ONLINE GROCERIES SHOPPING AMONG
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BY

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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 16, 913 of words.

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Date: _____

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DEDICATION

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For providing us an opportunity to conduct this research project.

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Dear supervisor who guide for the feedback, assistance and
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project.

200 Survey Respondents

Appreciated to all respondents who help us to complete the questionnaire
for this research project.

Dear Family and Friends

To family and friends who give us their valuable support, encouragement and
helping hands.

Thank you.

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LIST OF ABBREVIATIONS

IT	Information technology
ITA	International Trade Administration
DFTZ	Digital Free Trade Zone
NESR	National E-commerce Strategic Roadmap
GDP	Gross Domestic Product
SPSS	Statistical Package of the Social Science
TAM	Technology Acceptance Model
PEOU	Perceived Ease of Use
T	Trust
C	Convenience
SN	Subjective Norms

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A Study on Factors Influencing the Adoption of Online Groceries Shopping among Generation X in Klang Valley

PREFACE

E-commerce has become more important into our life due to the advance technology and fast changing global marketplace today. Nowadays, people are aware the existing of e-commerce. E-commerce is included the selling and buying transaction with using the payment method of smart cards, electronic fund transfers and other digital networks methods. So, online groceries shopping are one of the system under e-commerce.

Online groceries shopping are to purchase the groceries products through online retailer's shop. By using the online groceries shopping will be more convenience compare to purchase the groceries in the traditional stores. Then, we found out there are many online groceries retailers starting to try different ways to sell their products through online such as Tesco, Honestbee and so on. Moreover, many consumers who know Tesco is having this kind of service and many consumers prefer to purchase from their shop. So, online groceries shopping is considering new in Malaysia market as it can be improving in the future.

The purpose of this research is to determine the factors influencing the adoption of online groceries shopping among Generation X in Klang Valley. Therefore, all the marketers and developers can understand what factors will affect adoption of generation x to use online groceries shopping. This study is to define how independent variables can affect the dependent variable.

Lastly, this study can help marketers and developers to find out which variables are the best predictor that affect the adoption of using online groceries shopping. Then, readers can be increasing their awareness about online groceries shopping and gain more knowledge about it in Malaysia.

A Study on Factors Influencing the Adoption of Online Groceries Shopping among Generation X in Klang Valley

ABSTRACT

The main objective of the research is to study on factors influencing the adoption of online groceries shopping among Generation X in Klang Valley. However, this research is to study on the relationship between the independent variables, convenient, perceived ease of use, subjective norms, trust and the dependent variable, adoption of online groceries shopping among the Generation X.

Our target respondents of this research are the consumers of Generation X who are having intention or who do not have intention to adopt online groceries shopping, and those who had or have not used online grocery shopping before and lastly to figure out the factors that will influence the consumers of Generation X to adopt the online groceries shopping in future. In addition, 200 questionnaires were distributing to the respondents through the online Google form and collected 200 responds from them. The data collected will be analysed by using the Statistical Package for Social Science (SPSS) and the Reliability Analysis test, Pearson's Correlation Analysis and Multiple Regression Analysis will be conducted in this research.

Based on the result on Multiple Regression Analysis, the result shows that the independent variables of convenience, subjective norms, and trust have the positive significant relationship with dependent variable of adoption of online groceries shopping. Therefore, the independent variable of perceived ease of use has no positive significant relationship with dependent variable of adoption of online groceries shopping.

Moreover, this research provided a clearer overview for developers, academicians and users who are involving in the adoption of using online groceries shopping. Lastly, limitations of this research were identified and the implications for further research were recommended in this research.

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CHAPTER 1: RESEARCH OVERVIEW

1.0   Introduction

The objective of this research is to influence the consumers of Generation X to adopt the online groceries shopping in Klang Valley. The researchers would like to study what are the factors that will influence the Generation X to adopt of online groceries shopping in their daily life. The factors included in this research will be the convenient, perceived ease of use, subjective norms, and trust. In this research, we targeted the generation X because consumers of generation X often purchase groceries as their daily routine. In addition, groceries are said to be the most important material in everyone's daily life especially to the consumers of generation X because they need to take good care for their family members with at least three meals a day and the daily use. Thus in this chapter of research, the researchers included the background of research, the problem statement, the research objectives and research questions, the hypotheses of the study, the significance of study and the conclusion of this chapter.

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1.1 Research Background

1.1.1 Generation X

Based on the research, generation X is born in the middle of year 1960s to the early year of 1980s. Nowadays, generation X can fully manage the idea of online shopping since their technology of internet is not advance during their early age (Miller, E., 2018). Thus, the generation X will usually do comparison between the similar products during the purchasing and they will be focusing more on the quality of the products rather than the price of products.

1.1.2 E-Commerce

The e- commerce is referring to electric commerce where it is the strong approach and method where it had basically changed the present of human living. The e- commerce is one of the principles to test on the transformation of information technology (IT) and connection in the economy field. This trading is due to the excessive of advantages to the human had been expanded quickly. Exactly, it could believe that e- commerce had been abolished most of the disadvantage of physical store businesses. For example, design and presence of physical store businesses had basically being different. These differences make a difference in the decision making of the economy where the physical stores businesses don't need to keep a lot of stocks and it admit that the retailer could manage to communicate with the whole market

anywhere in the world without stepping outside the house (Nanehkaran, Y. A., 2013)

According to the internet and mobile connectivity, Malaysia is increasing the higher rates of e- commerce usage. Malaysia has around 15.3 million of online shoppers about 50% of population and there is 62% of the consumers use their own devices to shop online. Online shoppers are always affected by the low price, the variety of product range, and the large amount of reviews from the earlier purchaser. Most of the Malaysian shoppers will always look after for convenience, free shipping, and exclusive deals that are offered by sellers (International Trade Administration (ITA), U.S. Department of Commerce., 2018).

Based on statistics of figure 1.1, although Malaysia is not in the top 10 of the e-commerce market but it shows that Malaysia had an increased in the e-commerce market value from year 2014 to year 2020 in the figure 1.2. In year 2014, the e-commerce market value in Malaysia worded about $1.9 billion and it increased to $3.19 billion in year 2018. In their expectation, the e-commerce market value will be increasing to $3.91 billion in year 2020 (Statistic.com, 2018).

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Figure 1.1: Top 10 Largest E-Commerce Market

Source: Orendorff, A. (2018, June 26). Global Ecommerce Marketplaces: The Complete List by Region and Sales. Retrieved from https://www.shopify.com/enterprise/global-ecommerce-marketplace

Figure 1.2: The E-commerce market value from year 2014 to 2020 in Malaysia

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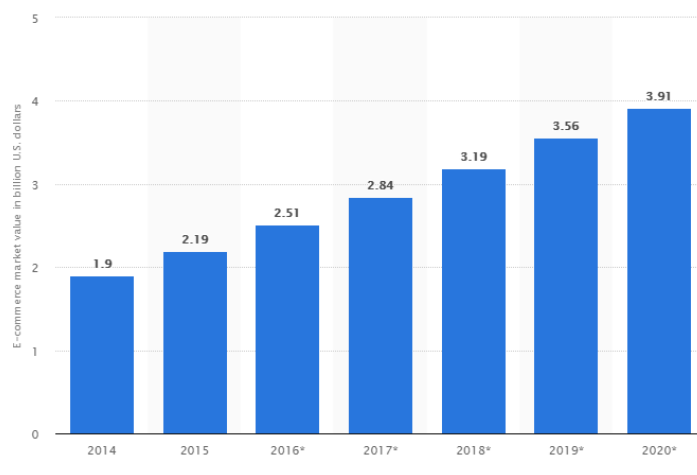
Source: Statistic.com. (2018). Malaysia: e-commerce market value 2020. Retrieved from https://www.statista.com/statistics/770042/e-commerce-market-value-malaysia/

1.1.3 Online Grocery Shopping

The groceries shopping is always a part of the most essential tasks by the family members that must be done in order to accomplish the needs for all the members in the family or even for personal consumption of daily use. Most of the times, groceries shopping will require a low involvement product decision that does not require a long time and effort in purchasing and making a decision, where it was considered as a simple way of purchasing than purchase an expensive item such as car or mobile phone (Nor Sara Nadia Muhamad Yunus et al, 2016).

Malaysia does not have much internet users who are active in purchasing the groceries through online, but it stands about 6% in the figure 1.3 of product categories purchase through online in Malaysia and still growing towards in the future (Statictic.com., 2014). Furthermore, online shopping used among Malaysian consumers had been shown as positive trends since the presence of ecommerce business. Hence, the online groceries shopping idea has been introduced to move the consumers in grocery shopping habits from traditional store to virtual store. The online groceries shopping occur during the consumers purchasing or ordering grocery products through the retailers' websites and the consequent process including the picking, packing and delivering grocery goods directly to consumers' home will be made by the grocery retailers itself without the worry of the consumers. Convenience and time saving is generally accepted as the usage of online grocery shopping

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among consumer because the daily operations are very easy and hassle-free experience. (Sulastri, et al, 2017).

Figure 1.3: Most recently online purchased product categories in Malaysia in 2014
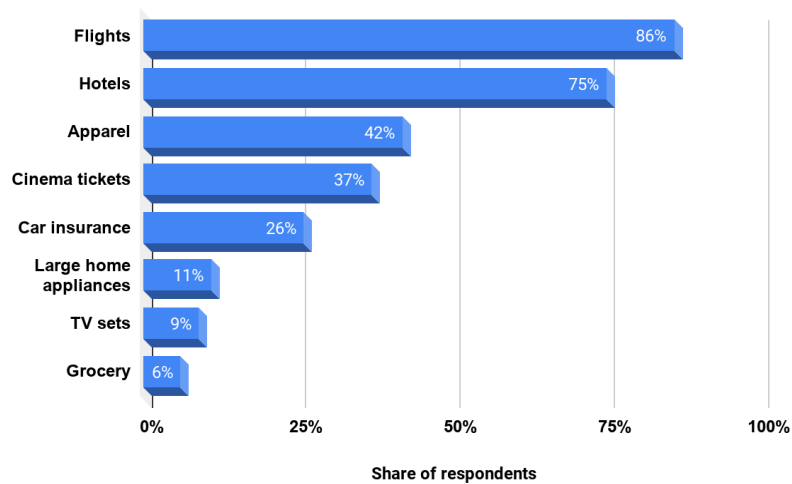
Source: Statictic.com. (2014, April). Most popular online purchase categories in Malaysia 2014. Retrieved from https://www.statista.com/statistics/348785/popular-online-purchases-categories-malaysia/

Last, Malaysia is still improving on their online grocery, but some of the users of internet are not usually using online grocery. Therefore, this research is to determine whether the factors of convenient, perceived ease of use, subjective norms, trust could increase the adoption of generation X using online grocery in Klang Valley or vice versa. The following will state the problem statement of this research.

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1.2   Problem Statement

Sometimes, the usage of online groceries website in term of the perceived ease of use of the website could only engage consumers to shop and search for the information of some particular products that they passion to know more; but it is not certainly means that the consumers will choose to purchase the product through the website. Mostly consumers will just want to attain some online information, and buy the product in the physical stores. This had proven that the perceived ease of use is not an important factor for the consumers to adopt the online groceries shopping due to the ease of the technology (Liat & Wuan, 2014).

Online shopping often trusts due to the environment of the physical stores and the online shopping is different where the online shopping is more complex. In the open network such as the Internet, it is difficult to authorize the trust between the buyer and seller where they could not talk face to face. In the term of trust, it is hard to know the actual meaning of trust, because trust is always being specific in different situation. For example, if the consumers having trust on the online vendors, thus there will be different trust applies in the situation. Therefore, the researcher stated that trust is not applicable in the field of online business (Gustavsson, M. & Johansson, A. M, 2006).

Based on the researcher, the behavior of subjective norms and the consumer's behavior do not have significant relationship and the research shown that the individual's attention likely to be dim to the impact of the subjective norm. The subjective norm is negotiating with the purchase purpose before operating the actual purchasing behavior. Therefore, the subjective norms do not have a significant affect to the actual purchasing online (Lim, et al, 2016).

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1.3   Research Objective.

1.3.1 General Objective

The main objective of this research is to study the *factors influencing the adoption of online* groceries shopping *among generation X in Klang Valley.*

1.3.2 Specific Objectives

1. To study whether the *adoption of online groceries shopping* among generation X is influence by the *convenience*.
2. To study whether the *adoption of online groceries shopping* among generation X is influence by the *perceived ease of use*.
3. To study whether the *adoption of online groceries shoppin*g among generation X is influence by the *subjective norms*.
4. To study whether the *adoption of online groceries shopping* among generation X is influence by the *trust*.

1.4   Research Questions

1. Does the *convenience* influencing the generation X to adopt the online *groceries* shopping?

2. Does *perceived ease of use* influencing the generation X to adopt the online *groceries* shopping?

3. Does the *subjective norm* influencing the generation X to adopt the online *groceries* shopping?

4. Does the *trust* influencing the generation X to adopt the online *groceries* shopping?

1.5   Hypotheses of the Study

H1: There is a significant relationship between *convenience and adoption of online groceries shopping* among generation X.

H2: There is a significant relationship between *perceived ease of use and adoption of online groceries shopping* among generation X.

H3: There is a significant relationship between *subjective norms and adoption of online groceries shopping* among generation X.

H4: There is a significant relationship between *trust and adoption of online groceries shopping* among generation X.

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1.6   Significance of the Study

The overall study from this research can learn some important knowledge and usefulness of using online grocery. The government in Malaysia was applying Electronic Commerce Act 2006 and the Electronic Government Activities Act 2007 for providing opportunity their residents to use the E-grocery. Besides, it also protected under the law of the Personal Data Protection Act 2010 and enter into the Digital Free Trade Zone (DFTZ) and National E-commerce Strategic Roadmap (NeSR) to raise Malaysia' gross domestic product (GDP). Although the percentages of using E-grocery in Malaysia are not very high, but there will be increasing the percentages in the future under their estimation due to the usage of E-commerce is improving in Malaysia.

Besides, technology is become more advancing and some of the grocery retailers was started to create their own online grocery to sell their products through online to provide better service to consumers in Malaysia. By the way, generation X should enter into the process of purchase grocery through the retails and most of them will using E-commerce to purchase products since E-commerce enter into worldwide. So, this study is aim to study the factors of *convenient, perceived ease of use, subjective norms, and trust* will influence the adoption of online groceries shopping among Generation X. Furthermore, this research could let the reader to understand and raise the awareness before starting to adopt the usage of online groceries.

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1.7   Chapter Layout

The outline of chapter 1 is a general content of study which contains the part of introduction and also a clear review of the research. Moreover, this chapter identifies the background of research, problem statement, question and objectives of research, hypotheses, and significance of study.

The outline of chapter 2 is to review the related literature from the sources of journals, reports, articles, and other useful information that can be supported and proceed to the full literature review. Then, the relationships between the independent and dependent variables can develop the conceptual framework. It also contains of hypotheses that can qualify the relationships in this research.

The outline of chapter 3 is research methodology that collects the data or information, such as research design, methods of data collection, sampling design, research instrument, constructs measurement, data processing, and data analysis.

The outline of chapter 4 is to identify the data which collected the questionnaires from the targeted respondents and show the complete data into table and figure. Thus, descriptive analysis, scale measurement and inferential analysis are conducting the results of this research paper by using the Statistical Package of the Social Science (SPSS) program.

The outline of chapter 5 is usually to conclude the overall result of the research. In addition, it also included the implication of study, findings, limitation and giving suggestions to improve the research in the future.

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1.8 Conclusion

In the conclusion, this chapter discusses the online groceries background of research and identifies the problem of consumers will face in the problem statement. Thus, audiences can understand the purpose of studying this research paper through the research objectives, research questions and hypotheses. Last, significant of study is the further research to provide the knowledge for consumers.

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CHAPTER 2: LITERATURE REVIEW.

2.0 Introduction

In this chapter, it is presenting the literature reviews of this research. The literature reviews are referring to the study on the factors to influence the adoption of using online grocery. Moreover, the conceptual framework will be shown in below for providing a better detail of graphical diagram. The hypothesis will be examined for the correlative between dependent variable and independent variables.

2.1 Review of the Literature

The literature review was based on the past studied and existing data from the journal research to illustrate the relationship between dependent variable (*adoption of online groceries shopping* among generation X) and independent variables (*convenient, perceived ease of use, subjective norms, and trust*) in this research.

2.1.1 Dependent Variable: Adoption of Online Groceries Shopping

Adoption of online grocery shopping defined the intention of consumers carry out the online purchasing in the future based on the journal of (Hansen, 2005). Besides, adoption is also an action of making decision from each individual who become a regular customers of the brand loyal product which is an innovation in form of an idea, good or service. It is also one kind of process to build the consumer loyalty. Then, consumer characteristics and socioeconomic factors will affect the consumer adoption such as their demographic, personality traits, the complexity and advantage of new product (Vidya-mitra, 2018).

The behavior of adoption is a formulation of a relationship between parent and child through legal and social procedures excluded the birth process. It could also be an action to which a child of parents became the child of another set of parents or parent (Bhaskar et al, 2012).

Based on the researcher, consumers will adopt online grocery shopping because consumers like to let their product to be delivered to their home directly and want to purchase their product privately. Furthermore, the prior studies found out that the factors such as internet experience, cheaper price of products, convenience, peer influence; ease in purchasing can affect consumers' adoption to shop through the Internet (Li, 2011).

A changed lifestyle and having a lack of time made an influence on individual's adoption of online grocery shopping. It is also an acknowledgement of the Internet's potential to have a growth on one's productivity belongs to a changed

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lifestyle. The early adopters of online grocery shopping have generally more educated and wealthy. The online grocery stores will attract the late adopters and straggler as well as to make sure that the e-commerce will continue to spread the desired level of popularity. This is achievable if there is enough availability of the information technology infrastructure, proper education of potential users, and reduction of access cost (Chen, L. D., Gillenson, M. L. & Sherrell, D. L., 2002).

Online grocery shopping adopters connects the higher unity, higher related advantage, clear positive social norms, lower complication and lower online grocery risk to Internet grocery shopping. In the research where the researcher found out that the characteristic of consumers had divided into three type: consumers who did not do search on grocery-related information on the Internet, consumers who did search on grocery-related information on the Internet, but who haven have a chance to buy groceries on the Internet and consumers who had brought groceries online (Torben, Flemming and Hans, 2005).

2.1.2 Independent Variable: Convenience

Convenience is referring to the effort of consumers during purchasing of a product and the time that is safe by the consumers during the purchasing process. The effort or energy consumption can be known as a kind of non- money related cost that is related with view of convenience (Farquhar, J. D., & Rowley, J, 2015).

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Shopping convenience became one of the dominant inspirations of customer on the affection on adopting the online purchasing. Even though the convenience of online grocery shopping had become one of the extensive aspect on consumers to access the online retailers' websites, as the online business had been treated the convenience as an important variables, for example the customer service and trust, which will influence the result of the variables, such as the customer satisfaction and the behavioral intentions of consumers, or as one of aspect of online service quality, such as the accuracy and the responsiveness of the online retailers (Jiang, Zhilin, Minjoon, 2013).

Convenience matters on intellectual cost and it is also different types of non-fiscal cost which includes time, effort and stress. The approach of the convenience in service and the convenience in shopping could be clarified as the opportunity cost of effort and time that are committed with the shopping action had been reduced. Thus, there are different situation in the physical store, as the online shopping is the easiest way to let shopping to be perform in anywhere, and any time. Furthermore, online shopping services bring opportunity to the consumers to save their time from visiting to the walk- in retailer store and consumers could skip the process of choosing and packing products. Thus, due to these benefit of online grocery shopping, it is easier to attract the consumers who order larger order products (Huang & Oppewal, 2006).

At first, the idea of convenience in the theory of marketing is referring the coordination of products where the time and effort that consumers 'consume on the purchasing or usage on the services. In addition, the convenience in shopping can be divided into four elements which involve connection, searching, money transaction and decision making of convenience could be comsider during the purchasing process of the consumers through online shopping while more in physical stores (Pham, Tan, Misra, Maskeliūnas, Damaševičius, 2018).

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2.1.3   Independent Variable: Perceived Ease of Use

The concept of perceived ease of use (PEOU) on the online retailer usually are known as the subjective acceptance that ties to the consumers' evaluation of the psychological achievement utilizing the company web page where the consumer feels to use the system with the free of effort. In the technology acceptance model (TAM) in perceived ease of use will be affected by the usage of the web page provided by the online grocery retailer and this can easily associate to the probability to use the online shopping service (Zoeteweij, 2015).

The term perceived ease of use could be defined as the point of which the consumers having acceptance on the usage to some particular technology will having a free from effort of having ability to away from difficulty or big effort. The perceived ease of use having an interpretation that it is a degree of the technology can be used in an easy way. Hence, the perceived ease of use is referring to consumers' intorduction where the consumers buy groceries where they have the belief that the usage of online grocery could minimal their effort (Yee, 2016).

Perceived ease of use is the intensity of main effort where the consumers perform with a durable physical and mental system. Furthermore, the perceived ease of use is also means by a person's approach where the usage of the new device to perform the activity with free of effort to make a connection to the information needed to from the website (Rahman, Jalil, Mamun & Robel, 2014).

The perceived ease of use is the important consideration for the usage of the technology according to the framework of technology acceptance model (TAM). The involvement of the perceived ease to use has existed to enhance in the TAM

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where the poor users will connect to the effort which involve rejection on the technology. In addition, the TAM of perceived ease of use means that the stability on a person will have believes where the usage on the technology can have free of effort. The perceived ease of use will allow consumers to have a clear and user friendly where it follows the essential of the design of the website of the online grocery (Lee & Chang, 2011).

The perceived ease of use based on the research stated the combination of the physical with the mental forces where the consumers predict to accept when they are studying on handling of the technology. The easy way of learning and turning to be skillful at utilizing the common technology which includes the technologies and interface on the online shopping sites where it complete to be accurate encouragement to make the technology to be more easy to use (Lim & Ting, 2012).

2.1.4 Independent Variable: Subjective Norms

Subjective norms are known as social influence and it can be the perception from an individual to influence another individual to perform or not to perform at a specific behavior (Yee, 2016).

Besides, it also defined how an individual directly or indirectly to affect the attitude, feeling, thoughts and behavior of another individual. In addition, it is a process that individuals carry out the real behaviors and feelings as a result of an interaction from another individual who are perceived as desirable, expert changes, and similar. The people will get influenced when there is an existing of social group which concerning on an individual expects them to hold a particular attitude. Thus, it could create a positive result when most of the

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people perform at a specific behavior with beliefs. According to Nandin Tsydybey (2014), subjective norms can carry out the external pressure of an individual by surrounding persons such as family members, colleagues during works, and friends (Nandin Tsydybey, 2014).

Currently, it also can get influenced through the Twitter, Instagram, Facebook, Whatsapp, Wechat and others kind of social media. The reason is because the improvement of technology makes social media become a tool to start the social network between two or more individual. On the other hand, suggestive and informative become two roles of social influence from the consumers review online. Thus, suggestive is giving the negative or positive signals of the product popularity and informative is providing additional information for more understanding about a product (Pauzi, Thoo, Tan, Muharam & Talib, 2017).

Pauzi, Thoo, Tan, Muharam & Talib (2017) mentioned that consumers usually discuss with their friends to influences their perception positively on any services and products and it can result of whether to purchase or not to purchase. Since the pressure from the social media is more completed and faster than communicate face to face, they also need to go through the process of adoption on purchase online shopping.

2.1.5   Independent Variable: Trust

Trust is known as trustworthiness and the intention of trust, it defined individual are having a safe feeling to something that they can rely on. By using the electronic commerce, trust can make consumers feel comfortable and confident

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to follow the online vendor instructions, make purchase through online and explore their private information to them (Lee, Kang, & McKnight, 2007). Furthermore, trust is playing the most crucial role for the consumers have greater risks through online than through offline due to their lack of information and skill to visit store and define the products personally (Pauzi, Thoo, Tan, Muharam & Talib, 2017). On the other hand, trust also can be the main point on the long term relationship between dealers and buyers and loyalty of consumers.

Base on the analysis of McKnight and colleagues (2002), they found it can be divided into two groups, conceptual and referents. The different conceptual has refers to what kind of trust is such as beliefs, attitudes, dispositions and behaviors and the different referents have referred to the object, for example trust on something or someone who is having a specific characteristic. Moriuchi & Takahashi, (2016) mentioned that trust is the basic consideration in the world of commercial, where people are getting influencing by the action and attitudes from sellers and buyers.

In addition, trust can be influenced by the intention of consumers to purchase grocery online frequently. Ke, Chen & Su (2016) said that trust will result in consumer's satisfaction on the services and products that they are willing to purchase online. So, if dealers able to provide trust to consumers to purchase their grocery products then there will be increase the chance of consumers purchase or repurchase the products. In order to build up a better trust, dealers must able to avoid all of the mistakes that will disappoint their consumers and keep the promise for them due to they have the strong power of word of mouth which can influences the effect to dealers negatively or positively. Last, trust is an important role in assist consumers to eliminate the risks and their decision of purchase (McKnight, Choudhury, & Kacmar, 2002).

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2.2　Review of Relevant Theoretical Models

2.2.1　Independent Variable: Convenience

Figure 2.1: Independent Variable: Convenience
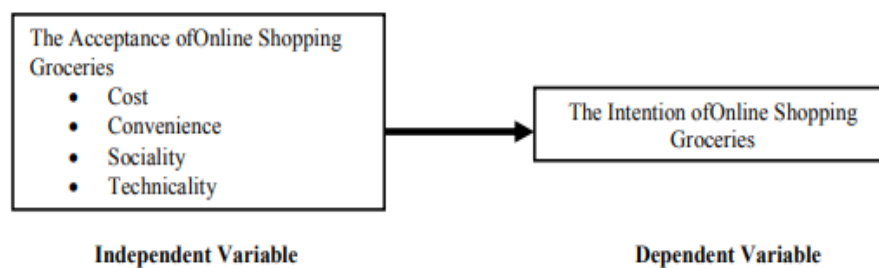
Source: Yunus, N., Ghani, N., & Rashid, W. (2016). The Acceptance and the Intention of Online Groceries Shopping in Malaysia. Journal Of Applied Environmental And Biological Sciences, 6(6), 29-34.

Figure 2.1 refers to the framework that examines the factor, cost, convenience, socially and technically having influences in the online groceries.

2.2.2 Technology Acceptance Model (TAM)

Figure 2.2: Technology Acceptance Model (TAM)
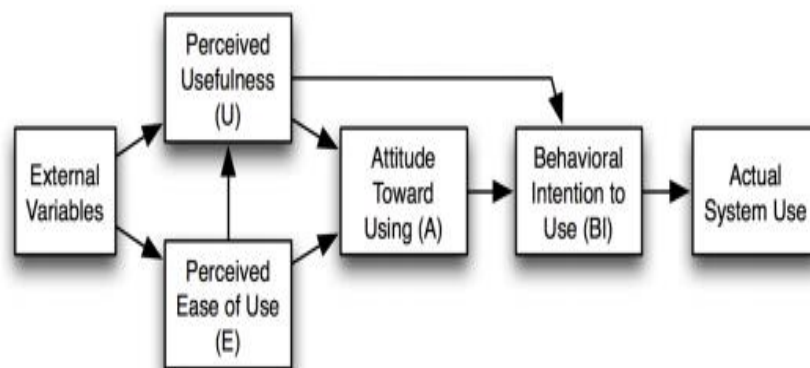
Figure 1: TAM

Source: Yee, P. J. (2016, April). Consumers' Acceptance towards E-Grocery. Retrieved from http://eprints.utar.edu.my/2083/1/Final_Submission.pdf.

The Technology Acceptance Model (TAM) is introduced by Davis (1989) which is a famous research model to conclude the use and the acceptance of information systems and technology by single users. TAM has been broadly studied and confirmed by many different studies to investigate the single technology acceptance behavior in different information systems created. The factors that the researcher is using will be the perceived ease of use (Davis, 1989).

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2.2.3 Independent Variable: Perceived Ease of Use

Figure 2.3: Independent Variable Perceived Ease of Use
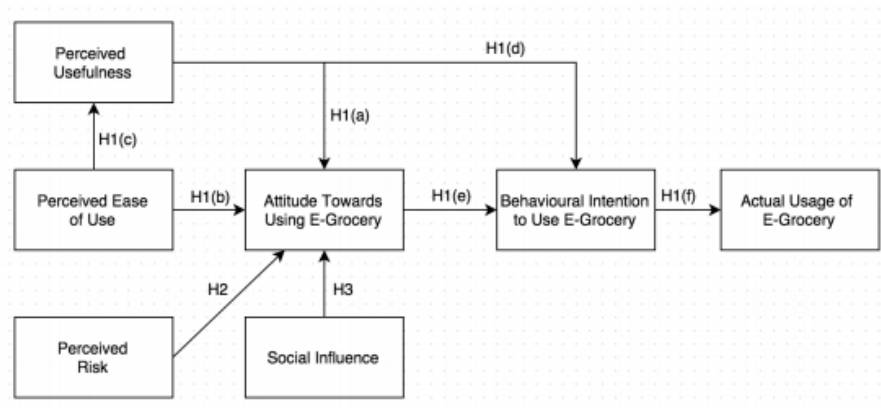
Source: Developed for the research study.

Source: Yee, P. J. (2016, April). Consumers' Acceptance towards E-Grocery. Retrieved from http://eprints.utar.edu.my/2083/1/Final_Submission.pdf.

Based on Figure 2.3, the framework shows that the perceived ease of use is influencing the attitude of consumer towards using the online groceries shopping.

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2.2.4   Independent Variable: Subjective Norms

Figure 2.4: Independent Variable Subjective Norms
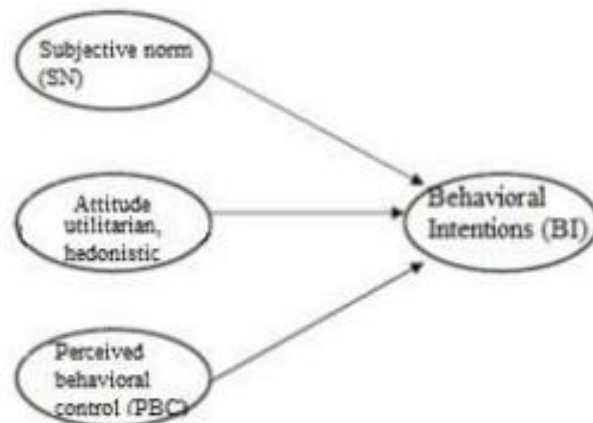
Source: Nandin Tsydybey. (2014). Consumer Intentions to Buy Grocery Products Online (Master's thesis, Tilburg University, Netherlands). Retrieved from http://arno.uvt.nl/show.cgi?fid=135408

Based on the figure 2.4, there is the direct effect of intention on using online grocery by subjective norm, attitude utilitarian hedonistic and perceived behavioral control.

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2.2.5   Independent Variable: Trust

Figure 2.5: Independent Variable Trust
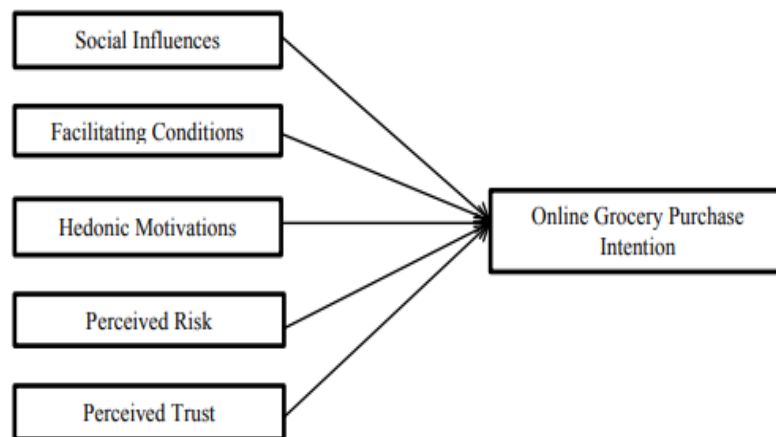
Source: Pauzi, S., Thoo, A., Tan, L., Muharam, F., & Talib, N. (2017). Factors Influencing Consumers Intention for Online Grocery Shopping – A Proposed Framework. IOP Conference Series: Materials Science and Engineering, 215, 012013.   doi:10.1088/1757-899x/215/1/012013.   Retrieved   from http://iopscience.iop.org/article/10.1088/1757-899X/215/1/012013/pdf

Based on the figure 2.5 shown the sample of framework that identify the relationship between perceived trust, perceived risk, hedonic motivations, facilitating conditions, social influences and online grocery purchase intention.

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2.3   Proposed Theoretical/ Conceptual Framework

Figure 2.6: A Model of Factors Influencing the Adoption of Online Groceries Shopping among Generation X in Klang Valley
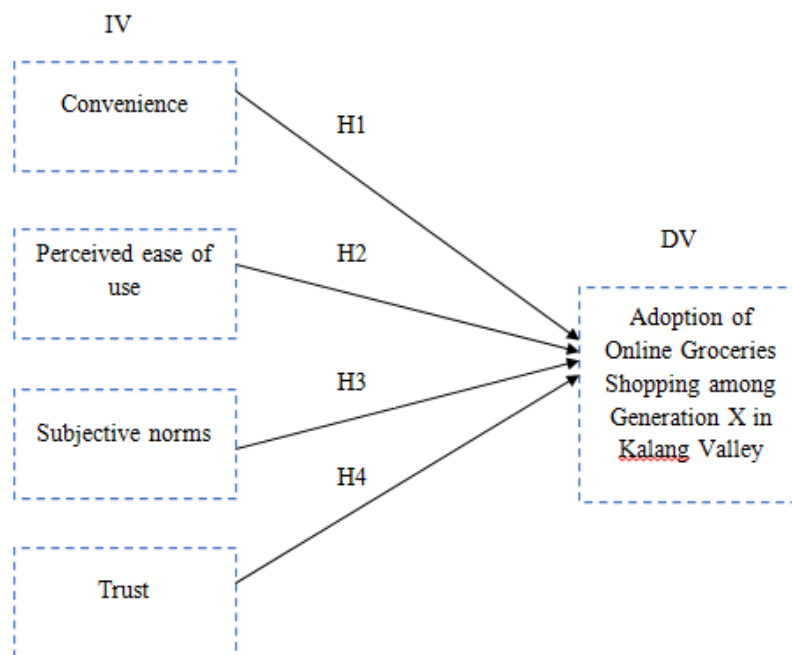
Source: Developed from the research.

Figure 2.6 is a conceptual framework that developed in our research. It shows the relationship between convenient, perceived ease of use, subjective norms, trust and adoption of online groceries among Generation X.

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2.4   Hypothesis Development

2.4.1 The relationship between Convenience and Adoption of online groceries shopping

Convenience is the matter that reflects on the psychological amount and the other forms of non- monetary amount that includes time, effort and stress that face by the consumers or users. The approach of convenience in shopping service is referred to the decrease the opportunity cost in the effort and time which concern with the online shopping activities. Online groceries shopping gives a better convenience to make the shopping achievable any place where it is better than in- store shopping in the physical store. However, the researcher believes that the aspect of convenience having a great impact on the online groceries shopping where the time and effort is safe in the process of shopping (Huang & Oppewal, 2006).

H1: There is a significant positive relationship between convenience and adoption of online groceries shopping.

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2.4.2 The relationship between Perceived ease of use and Adoption of online groceries shopping

Perceived ease of use is having a positive relationship with the online groceries shopping. Perceived ease of use is a technology where consumers can conveniently to have connection with the information on the purchasing decision. Perceived ease of use is connected with the elemental encouragement to the structured background in facilitating on the further result. An online grocery webpage plays an essential act to the search engine, download speed and the navigator of the online grocery. The process, manageability, elasticity and speedy system mastery is to mark out as the component of the perceived ease of use (Rahman, Jalil, & Robel, 2014).

H2: There is a significant positive relationship between perceived ease of use and adoption of online groceries shopping.

2.4.3 The relationship between Subjective norms and Adoption of online groceries shopping

Subjective norms are an action that perform from their behavior of interest or get influence from their family, neighbors, or friends. Khalil and Michael, (2008) mentioned that family, colleague, and friends have influence positively to an individual to purchase online.

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Besides, subjective norms are the important factor in acceptance of technology, so Malhotra & Galletta (2014) said that it is an important role to understand and accept the usefulness of new technology. Hasbullah, Osman, Abdullah, Salahuddin, Ramlee and Soha (2016) predicted that subjective norms have a very strong intention of consumers to purchase online. George, 2011 also supported that subjective norms have significant influence the satisfaction of purchase through online and it shows consumers will be more satisfied with whom giving the social experiences instead of shopping or non-shopping activities.

H3: There is a significant positive relationship between subjective norms and acceptance of online groceries shopping.

2.4.4 The relationship between Trust and Adoption of online groceries shopping

Trust can be attracting or convincing the consumers to increase their purchasing on service or product through online. Besides, researchers also believe that online retailer can be trust, so it can increase the confident and decrease the risk of purchasing through online. Nor and Pearson (2008) mentioned that trust has positive effect on using the online grocery purchase. Then, Lai & Wang, (2012) also supported and mentioned that trust has influence positively online grocery purchase. It also supported by Yulihasri et. al. (2011), there is a positive result from the test on impact and effect of trust and also the adoption on online purchase. However, there is also the relationship between online purchase behavior and intention with trust of online information.

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H4: There is a significant positive relationship between trust and adoption of online groceries shopping.

2.5   Conclusion

This chapter concluded the existing relationship between the dependent and independent variables. The literature review and hypothesis are written from the past research study. Moreover, the conceptual framework is made by the relevant theoretical models. For chapter 3 is to discuss the research methodology which used in this research.

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Chapter 3: Research Methodology

3.0 Introduction

In chapter 3, the researcher will mention the methodology on the design of the research, method of data collection, sampling design, research instrument, constructs measurement, data processing and the data analysis. The purpose of collecting the primary data and secondary data is to prove the result of hypothesis in this research. Besides, the sampling design is made as sampling method which included target population, sampling frame, location, elements, technique, and size of sampling. In addition, the test of questionnaire will be interpreting the result by using the software program.

3.1 Research Design

Based on Sekaran & Bougie (2003), the research design is an idea to which it is important for the information and the database could be collected and eventually to let the researcher to come out an idea to make sure that the researcher could handle the issues occur. Moreover, there are various ways to gather the data such as qualitative study, which the researcehr obtained the feedback from a wide perspective of answers in the interview basis, while for the quantitative study, the answers are collected from the structured and straightforward questions (Sekaran & Bougie, 2003).

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This research study is conducting the quantitative research and descriptive research to determine which variables have influence to the adoption of online groceries shopping (Sekaran & Bougie, 2003).

3.1.1   Quantitative Research

The quantitative research method is referring to the method of research that the dealing involving the figures and other relevant item that is related to the research that are measurable in an orderly method of finding of variable with their relevant relationships. The quantitative method frequently starts with the collection of data that is followed by the hypothesis or theory and it is based on the application of descriptive or inferential statistics. The surveys and observations are some examples that are usually adopted with statistical association (Sekaran & Bougie, 2003). In this research, survey through online questionnaire is used as the quantitative research. A Google form that created with the question from the study is distributed to the target population.

3.1.2   Descriptive Research

This research is included as descriptive research. A descriptive study is attempted to ensure and exist to the capability to characterize the attribute of the variables of interest in a situation. This research provides the knowledge of the factor that influencing the generation X towards the adoption of the online groceries shopping. The main reason of this research is to indicate the different

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factors that will have significant impact on the adoption of the online groceries shopping among the target respondents, generation X. The factors included convenient, perceived ease of use, subjective norms and trust (Sekaran & Bougie, 2003).

In addition, the researchers will conduct a pilot test to study the aspect of the questionnaire before giving out the actual questionnaire to a total of 200 respondents. A pilot study is means to find out if the questionnaire by the interview guider, observatory or the researcher from the work or research is working or vice versa in the "real world" by trying it out on a few people. The main reason of doing pilot test is to ensure that everyone in the research sample will understands the questions in the questionnaire and acknowledge them in the same way. The researchers will also be able to know the actual time to complete the whole questionnaire (Tabacco Control Evaluation Center, 2011).

3.2   Data Collection Methods

Data are usually gathered from either the primary or the secondary sources. The primary data is defined to be the data that is gathered by the researchers based on the variables that is related to the specific purpose of the research. While the secondary data referring to the information that gathered from sources which already existing (Sekaran & Bougie, 2003). The data collection is a process where information is collected from all the significant sources to find out explanation to the research problem in the research, to test the reliability of the hypothesis given by researcher and evaluate the outcomes from the survey (Dudovskiy, J., 2018).

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3.2.1 Primary Data

The primary data is the information that is gathered by researchers from the sources by using methods like surveys, interviews, or experiments (Stephanie, 2018). The sources of the primary data will be obtained by 200 respondents. The primary data will be obtained by distributing questionnaire through the Google Form to the generation X. The requirement of the respondents will be the generation X of men or women who are not using online groceries shopping before or generation X who have used the online groceries shopping or to those who are having intention to adopt the online groceries shopping. The online survey is used because it could help the researchers to save cost and time and the data can be easily collected. The result of the survey will be collected and it will be saved in the Google Form automatically.

3.2.2 Secondary Data

The secondary data is the data that are gathered from the past studies, surveys, or experiments that ran by other people or for other research purposes. In this research, the researchers gather the information from the past studies from Google Scholar and UTAR database from journals, articles, reports and other reliable online sources to look out for the information that is related to the research which included the dependent variable, independent variables and the online groceries shopping. This data is to make sure that the research found out the significant relationship between the independent variables and the dependent variable.

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3.3 Sampling Design

The sampling design refers to a process selecting an acceptable sum of components from the population, so that the research sample and a consideration of the attributes that would make it possible for the researchers to discover such attributes to the population elements. The characteristics of the population such as μ (the population mean), σ (the population standard deviation), and σ2 (the population variance) are the parameters. By using a sample, the collection data are self-evident. In addition, the sampling is the process of selecting a representative group from the population under a study (Saul McLead, 2014).

3.3.1 Target Population

The target population is a total group of individuals from which the sample might be drawn (Saul McLead, 2014). A target population is simply the group of individuals you have selected to study or research (Carrie Windham, 2014). In this research, the target population is consumers of generation X who are age between 35-55 in Malaysia and those who are having intention or do not have intention to use online groceries shopping, and those who had or have not used online groceries shopping before.

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3.3.2   Sampling Frame and Sampling Location

A sampling frame is a list that is used to define a researcher's population of interest. The sampling frame also known as a set of elements from which researchers can select a sample of the target population (Stephanie, 2014).

In this research, Klang Valley, Malaysia is used as the sampling location as the researchers distributes the online questionnaire through Google form to 200 respondents to conduct the pilot test and the final questionnaire. The Google Form is easier, cheaper, quicker, and the respondents could fill in the questionnaire in some convenience ways by using phone, laptop, Ipad or other devices.

3.3.3   Sampling Elements

Sampling element is a sampling technique whereby every unit (i.e. person, organization, group, company etc.) has the chance to select into the research sample. This is attainable when the researcher is able to classify and inform every individual in a target population (DJS Research, 2018).

In this research, generation X is aged between 35 to 55 years old is being chosen as the target population of the research. The generation X is chosen because this target population will have a higher chance to purchase groceries in the physical store in their daily life and the most of the generation X nowadays will know

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how to access the internet to purchase products or look for others products or services based on their needs and wants.

3.3.4   Sampling Technique

Sampling technique is divided into two major type; probability sampling and non-probability sampling. Based on the research, the researchers are using the non-probability sampling. Non-probability sampling is a sampling technique that the samples will be collected in procedures of research where not all the individuals in the population having the equal chances to be selected (Zikmund et al., 2010).

The researcher is using the convenience sampling in the non-probability sampling. The convenience sampling is a non-probability sampling technique that components had been chosen due to the convenient availability and closeness of the target population. The convenience sampling is the type of sampling that will be the firstly available for primary data where it will be used for the research without adding any extra necessity. In other words, this sampling method involves having participants wherever that the researchers could find them and typically wherever is convenient. Therefore, the researchers allocate the questionnaire to the target population on the generation X in Klang Valley by using the convenience sampling (Explorable.com, 2009).

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3.3.5   Sampling Size

The sample size is driven by the level of accuracy and confidence that is wanted on the judging of the population parameters, and the variability in the population itself. For the quantitative research, the most appropriate sample size that is suggested will be more than 30 respondents and less than 500 respondents (Sekaran & Bougie, 2003). In this research, the researchers use a sample size 200 respondents where the questionnaire will be distributed to 200 respondents who are in generation X.

3.4   Research Instrument

Research instrument is what the researchers use to collect important information or data to answer the research question. It could be applied to both qualitative and quantitative approaches where it could produce quantitative or qualitative data (Eng, 2013). The survey methods can be divided into two main methods such as questionnaires and interviews (William, M. K, Trochim, 2006b).

In this research, questionnaire is adopted as a survey tactic to gather information from the respondents. The questionnaire can be divided into self-administered, the group-administered, and the household drop-off (Sofie Nelen, 2017). However, in this research, the self- administered questionnaire is used. The questionnaires are distributed to collect the primary data from 200 respondents who are generation X on the relationships of convenience, perceived ease of use, subjective norms and trust towards online groceries shopping. The respondents will fill up the survey by themselves in form of electronic and allow the researchers easier to collect data.

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3.4.1 Questionnaire Design

Questionnaire design is the steps of constructing the layout and questions in the survey form where the information collected will be used in data collection as the result of the research. In constructing a survey question, all the different level of survey idea and the application should be studied (Lavrakas, P. J., 2008).

In this research, language used is English which is simple and easy to understand by the respondents who are generation X. The questionnaire is designed to be distributed for education purpose and the result will be kept in confidentially. The questions are divided into three sections; Section A, Section B and Section C. Section A is the demographic profile to let the respondents choose the answer that is related to their own background. It involves gender, age of generation X, ethnicity, highest education level, and monthly income of each respondent that involve in the target population

Next, Section B involves questions of the general information which are related with the researcher's research topic. These questions involve are do they use Internet, do they know about online groceries shopping, do they know that Malaysia store provides online groceries shopping to consumers, which online groceries shopping website that they know in Malaysia, and which of the factors that are important for them to choose online groceries shopping.

Lastly in Section C, it involves the questions related to the independent variables and dependent variable. Part A refers to the dependent variable, adoption of online groceries shopping. While part B to part E are the independent variables of convenience, perceived ease of use, subjective norms

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and trust which represents the factors that influence the adoption of online groceries shopping. The questionnaire is completed by the respondents who need to select the answer from the five- point Likert scale.

Table 3.1: Parts of IV and DV

Parts	Variables	Independent and dependent variables
A	Dependent Variable	Adoption of online groceries shopping
B	Independent Variable	Convenience
C	Independent Variable	Perceived ease of use
D	Independent Variable	Subjective norms
E	Independent Variable	Trust

The measuring scale is 5-point Likert scale in which:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

Source: Developed from the research.

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Table 3.2: Summary of Measures

Variable	Number of Items	Measurement Scale
Adoption of online groceries shopping	5	5-Point Likert Scale (1=Strongly Disagree to 5=Strongly Agree)
Convenience	5	5-Point Likert Scale (1=Strongly Disagree to 5=Strongly Agree)
Perceived ease of use	5	5-Point Likert Scale (1=Strongly Disagree to 5=Strongly Agree)
Subjective norms	5	5-Point Likert Scale (1=Strongly Disagree to 5=Strongly Agree)
Trust	5	5-Point Likert Scale (1=Strongly Disagree to 5=Strongly Agree)

Source: Developed from the research

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3.4.2   Pilot Test

Pilot tests can be referred as the "dress rehearsals" to the full questionnaire operations that are completed to find out whether there are problems exist or not that need to be addressed previously to let the management of the survey in the field (Lavrakas, P. J, 2008). The benefits of control the pilot test is to let the forward cautionary on the main research project that could be unsuccessful, or to see either the proposed methods or the instruments of the method are wrong or too difficult (Van, & Hundley, 2001).

In this research, a total of 20 copies of questionnaires are distributed to 20 respondents who are generation X. The completed questionnaire will be examined through SPSS. If the result of Cronbach Alpha value of the pilot test fell under the range of 0.6 to 1.0, it indicates that all items are reliable and acceptable in this study (Pallant, 2013).

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<p align="center">Table 3.3: Pilot Testing</p>

Variables	Cronbach's Alpha	No. of items
Adoption of online groceries shopping	0.826	9
Convenience	0.886	9
Perceived Ease of Use	0.921	8
Subjective Norm	0.91	9
Trust	0.839	9

Source: Developed for Research

3.5   Constructs Measurement (Scale and Operational Definitions)

3.5.1   Ordinal scale

In the order of measurement rank, the ordinal scale commonly studied as the second lowest characteristic order, which fall between the nominal and interval scales. An ordinal scale refers to a measurement scale that assigns the figures to the variables based on their corresponding list with considertion to one another in a given list (Salkind, N. J., 2010).

In the questionnaire, questions in Section A and Section B such as age, monthly income and the importance factors of adoption of online grocery shopping are referring to the ordinal scale.

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Figure 3.1: Ordinal Scale Example

2. Age

☐ 35 - 39 years

☐ 40 - 44 years

☐ 45 - 49 years

☐ 50 - 55 years

Source: Developed for Research.

3.5.2 Nominal Scale

Nominal scale is a measurement of the numerical values just "name" where it characteristic uniquely and it does not involves ordering of the cases is implied (William M.K. Trochim, 2006a).

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Figure 3.2: Nominal Scale Example

1. Gender

☐   Male

☐   Female

Source: Developed for Research.

3.5.3   Interval Scale

An interval scale can measurements the difference between values that is meaningful. In other words, it refers to the differences between points on the scale are measurable and exactly equal (Stephanie, 2014)). In Section C of the questionnaire, the researchers use the interval scale that knows as five-point Likert scale. The Likert Scale is divided into two type; five-point scale or seven-point scale which it will allow the respondent to express how much they c or disagree with a particular statement given by researchers.

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Five Points Likert Scale
1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

Source: Developed for Research

Table 3.4: Measurement Used for Each Variable

	Variable	Measurement
Demographic Profile	Gender	Nominal
	Age	Ordinal
	Ethnicity	Nominal
	Highest Education Level	Ordinal
	Monthly income	Ordinal
General	Do you use Internet?	Nominal

Questions	Do you know about online groceries shopping?	Nominal
	Do you know that Malaysia store provides online groceries shopping to consumers?	Nominal
	Which E-grocery website did you know in Malaysia? (Can choose more than one answers)	Nominal
	What are the important factors of using online groceries shopping?	Nominal
Dependent variable	Adoption of online groceries shopping	Interval
Independent variable	Convenience	Interval
	Perceived ease of use	Interval
	Subjective norms	Interval
	Trust	Interval

Source: Developed for Research

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3.5.4 Origin of Construct

Table 3.5: Origin of Construct

Constructs	Sources
Adoption of online groceries shopping	Rizwan, M., Umair, S. M., Bilal, H. M., Akhtar, M., & Bhatti, M. S. (2014). Determinants of customer intentions for online shopping: A Study from Pakistan. Journal of Sociological Research, 5(1). doi:10.5296/jsr.v5i1.6565
Convenience	Sulastri, A. S., Nawi, N. M., Abdullah, A. M., & Latif, I. A. (2017). Factors Influencing Consumer's Intention towards Online Grocery Shopping. IOSR Journal of Humanities and Social Science, 22(06), 74-79. doi:10.9790/0837-2206107479
	Modirghomi, A.,& Sarshar., A. (2005). The Effect Online e- Grocery on Consumers Value in The Iranian Market (Doctoral dissertation, Lulea University of Technology). Retrieved from http://www.diva-portal.se/smash/get/diva2:1021668/FULLTEXT01.pdf

Perceived ease of use	Cheema, U., Rizwan, M., Jalal, R., Durrani, F., & Sohail, N. (2009). THE TREND OF ONLINE SHOPPING IN 21ST CENTURY: IMPACT OF ENJOYMENT IN TAM MODEL. Retrieved from http://www.aessweb.com/pdf-files/3%20(2)%20131-141.pdf
	Yee, P. J. (2016, April). Consumers' Acceptance Towards E-Grocery. Retrieved from http://eprints.utar.edu.my/2083/1/Final_Submission.pdf
	Sulastri, A. S., Nawi, N. M., Abdullah, A. M., & Latif, I. A. (2017). Factors Influencing Consumer's Intention towards Online Grocery Shopping. IOSR Journal of Humanities and Social Science, 22(06), 74-79. doi:10.9790/0837-2206107479
Subjective norms	Blomqvist, A., Lennartsson, F., & Nyman, L. (2015, May). Consumer Attitudes Towards Online Grocery Shopping. Retrieved from http://www.diva-portal.org/smash/get/diva2:812884/FULLTEXT01.pdf
	Ranadive, A. (2015, March). An Empirical

	Study on the Online Grocery Shopping Intentions of Consumers in Vadodara City. Retrieved from https://www.nuv.ac.in/PDF_PB/Amol_Ra nadive_1.pdf
Trust	Peball, S. (2017, January). Buying Groceries Online: Consumer Perceptions And Generational Cohorts. Retrieved from https://run.unl.pt/bitstream/10362/23176/1 /SarahPeball_2017.pdf

Source: Developed for Research

3.6   Data Processing

3.6.1   Questionnaire Checking

After designing the questionnaire, the researchers need to checkup and review on the whole outline of the survey, the questions being asked on the questionnaire, and the response options provided to the respondents. In this research, the researchers conducted a pilot test from 20 respondents of

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generation X to review on the overall questionnaire to analyses the reliability of the questionnaire and to detect error on the questionnaire.

3.6.2 Data Editing

Data editing is the process where the researchers will have to analyze and adapt on the information for exclusion, accuracy, and flexibility. Data editing could be separated from summarizing, which is the research of figures scales or characteristic of the symbols to the formerly edited data. The goal of data editing is to make sure that the information is fully available, flexibility, and could be read before the information are be transferred into data storage. The editor's job is to check for inaccuracy and oversight of the questions on the survey or other data collection forms (ZeePedia.com, n.d).

Data editing is under- described and the component of the data collection process. Data editing processes and procedures are controlled by cooperation between the available of computer technologies and the decision-making 'rules'. While the effective and appropriate of data editing procedures are created to enhance the quality of survey data and minimize error, where many issues must be measured when selecting and developing an effective data editing system to promotes the data quality while effectively utilizing available resources (Stinson, & Fisher, 1996).

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3.6.3 Data Coding

Data coding is the method of arranging codes from the detected information. In qualitative research, the information is either attained from examination, interviews or from survey. The goal of data coding is to run the significance and content of the information that the respondents have given to the researcher. The data coder is a quotation exploratory code from the noticed information; the introductory of codes are additional refine and sophisticated to access to the systematic accurate and short codes. In the later state, in the assessment of information the researchers allow principles, percentages or other numerical quantities to these codes to draw inferences. The data coder should make sure that the valuable points of the information will not be lost in data coding (ReadingCraze.com, 2015).

3.6.4 Data Transcribing

Data transcribing is an observation data through a repeated confirmation and it was the first step in the data analysis process. It determines the data must be familiar with what the researchers expected and it will take a long time to transcribe into a final data. Besides, it involves the time of project plan and budgeting while transcribing (Bailey, 2008). After the researchers have gather all of the data coding in the software program of SPSS software, the data will transcribe into a disk. Then, researchers will enter all the data into the Statistical Packaging for the Social Science (SPSS) to determine the data whether is more validity or accuracy.

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3.6.5 Data Cleaning

Data cleaning is the last data processing, it contains the primarily in preventing the error data after the data transcribing. However, the prevention of error can be reducing but not eliminate the common errors and many error data will be occurred during the collecting data, transforming data, data analysis and submit the report (Acaps, 2016). So, researchers must carry out this step to ensure data cleaning can provide an accurate and validity information without any mistakes or omissions.

3.7 Data Analysis

Data Analysis included conducting and an approach which could be achieve from the information that could use to express the matter, discover the design, establish the clarification and examine on the hypotheses. This includes data quality assurance, statistical data analysis, modeling, and interpretation of results (Anagnostou, et al, 2015).

3.7.1 Statistical Packaging for the Social Science (SPSS)

For this research will using the SPSS to run the data analysis. SPSS is a software program for statistical data analysis. The objective of SPSS is to provide the basic knowledge of program to exploration of data. Moreover, it

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can handle a large amount of data into the software and perform all the analysis methods (Howell, D. C., 2010).

Besides, the researcher can able to understand the features of SPSS, understand the use of GUI, perform well in descriptive analysis, the nonparametric tests, common parametric, multivariate analysis and simple regressions (Baggio, 2017). By using the SPSS software, researchers can easily to analysis by putting all the data into the software and execute all the analysis.

3.7.2 Descriptive Analysis

Descriptive analysis is generating the descriptive information and performs in understanding, rearranging, interpreting, ordering and manipulating data (Zikmund, 2003). In this research, it will test the population of data which collected from the 200 respondents and researchers have generate all of the relevant data into the methods of percentage or frequency and provide a graph or chart. Last, researchers can define the mean of each construct.

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3.7.3   Scale Measurement

3.7.3.1   Reliability Test

Reliability test is applying the Cronbach's alpha and it could able help the researchers to check the result between the independent and dependent variables which are convenience, perceived ease of use, subjective norm, trust and adoption of online groceries shopping and define whether they are reliable or not (Stephanie, 2014). When the results come out with a smaller alpha value, it represents there are the weaker relationship between the dependent and independent variable. Theoretically, the results should be a number from 0 - 1, but it will be a negative number too. The negative numbers represent there is a mistake with data. According to the table 3.6, the alpha value is below than 0.6 which mean the result is poor reliability. Following by the alpha value at 0.7 or above is consider good reliability and higher than 0.81 is known as excellent reliability in the result, as well as it is representing a very strong relationship between the dependent and independent variable (Rachel, 2018).

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Table 3.6: Range of Cronbach's Alpha value

Cronbach Coefficient alpha (α)	Indication
α value < 0.60	Poor reliability
α value between 0.61 and 0.70	Fair reliability
α value between 0.71 and 0.80	Good reliability
α value between 0.81 and 0.95	Excellent reliability

Source: Zikmund, Babin, Carr & Griffin (2010). Business Research Method (8th ed.).

3.7.4   Inferential Analysis

3.7.4.1   Pearson's Correlation Analysis

Pearson's Correlation Analysis is used to measure the strength of association between the relationship of dependent variable and independent variables (University of the West of England, 2018). According to the table 3.7, reader can know there are the value for Pearson Correlation cans analysis the different result from the different relationship in between dependent variable and independent variables. When the result at between 0.30-0.50 considers the

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relationship between dependent and independents variables will be moderate. The higher value of Pearson Correlation, the stronger the relationship between the independent variables and the dependent variables.

The formula of the Pearson's Correlation is:

$$r = \frac{n\,(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{[n\Sigma x^2 - (\Sigma x)^2][n\Sigma y^2 - (\Sigma y)^2]}}$$

Table 3.7: Value for Pearson Correlation Analysis

Correlation	Positive	Negative
None	+0.0 to +0.09	-0.09 to -0.0
Weak	+0.10 to +0.30	.-0.30 to -0.10
Moderate	+0.30 to +0.50	-0.50 to -0.30
Strong	+0.50 to +0.90	-0.90 to -0.50
Perfect	+1	-1

Source: Rumsey, D. J. (2011). How To Interpret A Correlation Coefficient R. In *Statistics for dummies* (2nd ed.). Hoboken, NJ: Wiley Pub.

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3.7.4.2   Multiple Regression Analysis

Multiple regression analysis is known as the predictors (Explorable.com, 2018). It is a method that helps researchers to define the relationship between one dependent variable and four independent variables which are convenience, perceived ease of use, subjective norms and trust towards adoption online groceries shopping in this research (Statistics Solutions, 2018). Moreover, the researchers will provide the coefficient value and the value of the ANOVA.

The formula of the Multiple Regression analysis:

$$y = \beta_0 + \beta_1 \chi_1 + \beta_2 \chi_2 + \ldots + \beta_m \chi_m + \xi$$

y = Dependent variable

β_0 = Intercept

$\beta_1, \beta_2 \ldots, \beta_m$ = Regression Coefficient of the independent variables

$\chi_1, \chi_2 \ldots, \chi_m$ = Independent variables

ξ = Random error

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3.8 Conclusion

In the conclusion, this chapter can be concluded the research design that the researchers used and the result of primary and secondary that carried out to gather all the useful information through different ways. The sampling techniques are able to let the readers to understand what kind of technique used in this research. Besides, the target population of this research is the generation X which aged at between 35-55 years old. The researchers distributed the questionnaires around Klang Valley with total 200 respondents to carry out the survey through the Google online survey form. Before distributing the online survey, the researchers have to first distribute to 20 respondents to conduct a pilot test so that the mistakes can be minimized for the actual questionnaire. After the pilot test, the researchers will conduct the reliable test to make sure that the result of Cronbach's alpha value must be more than 0.7 through the Statistical Packaging for the Social Science (SPSS). Lastly, this chapter also involved the data analysis method to test the result of the final result of the actual questionnaire.

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CHAPTER 4: DATA ANALYSIS

4.0   Introduction

After the researchers had completed the chapter 3 and the pilot test, the researchers can define that there is more reliability on questionnaire from the 200 respondents of Generation X. In Chapter 4, the researchers will be concluding the result which answered by the Generation X and the result will be tested through the Statistical Package for Social Science (SPSS). By using the SPSS software, it could help the researchers to save more time. In the meanwhile, in this chapter the researchers will state the method of analysis test in the inferential analysis. Besides, the researchers will show the result in the form of percentage and graph. In addition, Multiple Regression and Pearson Correlation will be measured in this research and the researchers will analyze the reliability test to determine whether it is reliable for each of the variable or vice versa.

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4.1   Descriptive Analysis

4.1.1   Respondents Demographic Profile

In the questionnaire, Section A are having total 5 questions which include the gender, age, ethnicity, highest level education and monthly income of the respondents of generation X.

4.1.1.1   Gender

Table 4.1: Statistic of Respondents' Gender

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Male	79	39.5	39.5	39.5
Female	121	60.5	60.5	100
Total	200	100	100	

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Source: Developed from the research.

Figure 4.1: Percentages of Respondents' Gender
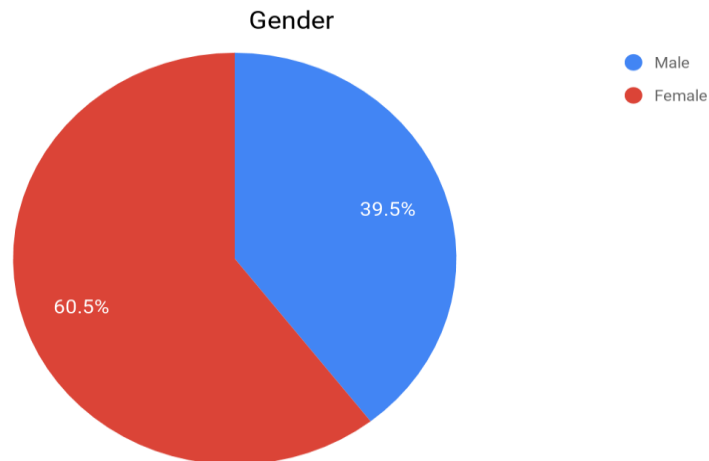
Source: Developed from the research.

As a result, majority of the respondents are female which are 121 (60.5%) respondents. Besides, the balances of 79 (39.5%) respondents are male which shows at above the Table and Figure of 4.1.

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1.1.2 Age

Table 4.2: Statistics of Respondents' Age

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
35 - 39 years old	151	75.5	75.5	75.5
40 - 44 years old	18	9	9	84.5
45 - 49 years old	10	5	5	89.5
50 - 55 years old	21	10.5	10.5	100
Total	200	100	100	

Source: Developed from the research.

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Figure 4.2: Percentage of Respondents' Age
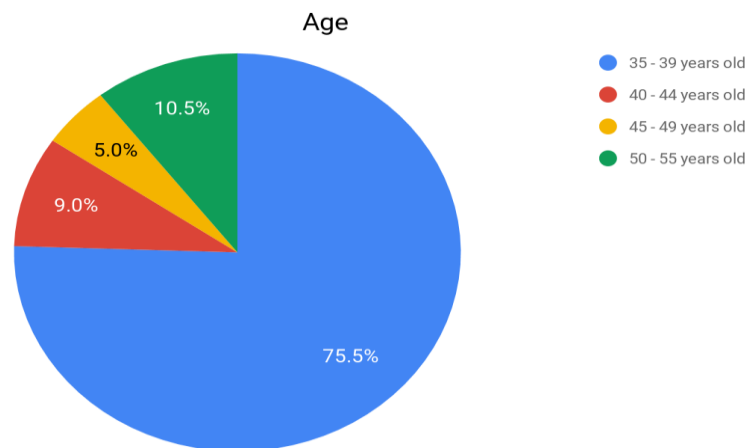
Source: Developed from the research.

Based on the table and figure of 4.2, the results show that the total of 151 (75.5%) respondents are between the age of 35-39 years old, 18 (9%) respondents are between the age of 40-44 years old, 10 (5%) respondents that aged at between 45-49 years old and 18 (10.5%) respondents aged at between 50-55 years old.

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4.1.1.3   **Ethnicity**

Table 4.3: Statistic of Respondents' Ethnic Group

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Malay	5	2.5	2.5	2.5
Chinese	187	93.5	93.5	96
India	8	4	4	100
Total	200	100	100	

Source: Developed from the research.

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Figure 4.3: Percentage of Respondents' Ethnic Group

Ethnicity

India
4.0%

Malay
2.5%

93.5%
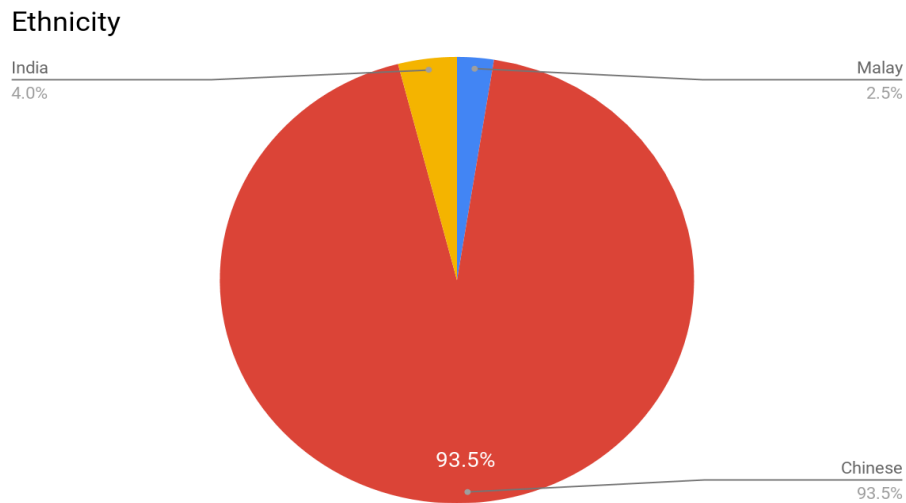
Chinese
93.5%

Source: Developed from the research.

Most of the respondents are Chinese, at the total of 187 (93.5%) respondents. Besides, 5 (2.5%) respondents are Malay and 8 (4%) respondents are Indian within the total sample size of 200.

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4.1.1.4   High Education Level

Table 4.4: Statistic of Respondents' High Education Level

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
SPM	24	12	12	12
A-Level	2	1	1	13
Foundation	10	5	5	18
Diploma	20	10	10	28
Undergraduate	105	52.5	52.5	80.5
Postgraduate	29	14.5	14.5	95
Master	8	4	4	99
Others	2	1	1	100
Total	200	100	100	

Source: Developed from the research.

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Figure 4.4: Percentage of Respondents' Highest Education Level

Highest Education Level
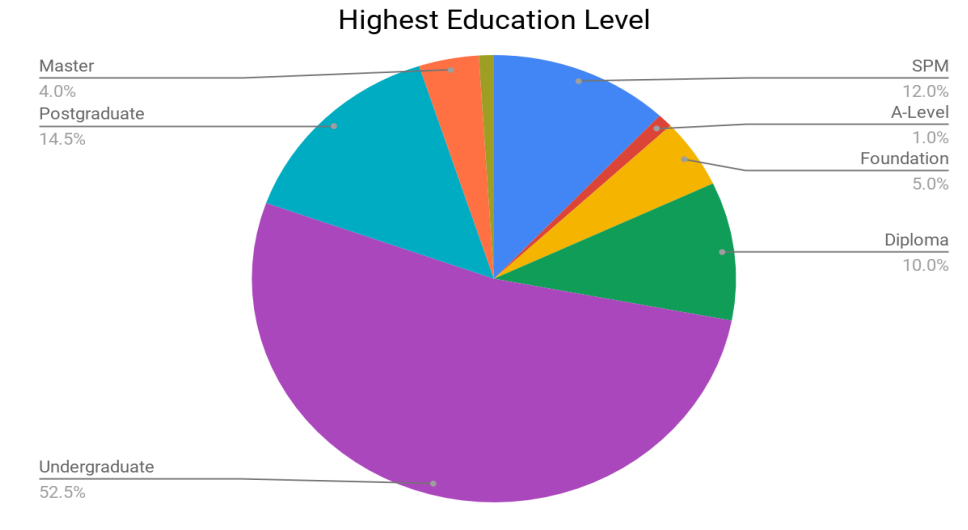
Source: Developed from the research.

According to the table and figure of 4.4, total of 24 (12%) respondents are having SPM level while total of 2 (1%) respondents are A -Level holders. The foundation holders consist of 10 (5%) respondents, followed by the Diploma holders that consist of 20 (10%) respondents. There is a majority of 105 (52.5%) respondents are Undergraduate holders, the Postgraduate holders are 29 (14.5%) respondents and the Master holders will be 8 (4%) respondents. The others are included the STPM holder and the PHD holder where is consists of one respondent equally.

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4.1.1.5 Monthly Income

Table 4.5: Statistic of Respondents' Monthly Income

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Less than RM3,500.	69	34.5	34.5	34.5
RM3,501 - RM 4,000.	57	28.5	28.5	63
RM 4,001 - RM 4,500.	28	14	14	77
Above RM 4,501.	46	23	23	100
Total	200	100	100	

Source: Developed from the research.

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Figure 4.5: Percentage of Respondents' Monthly Income
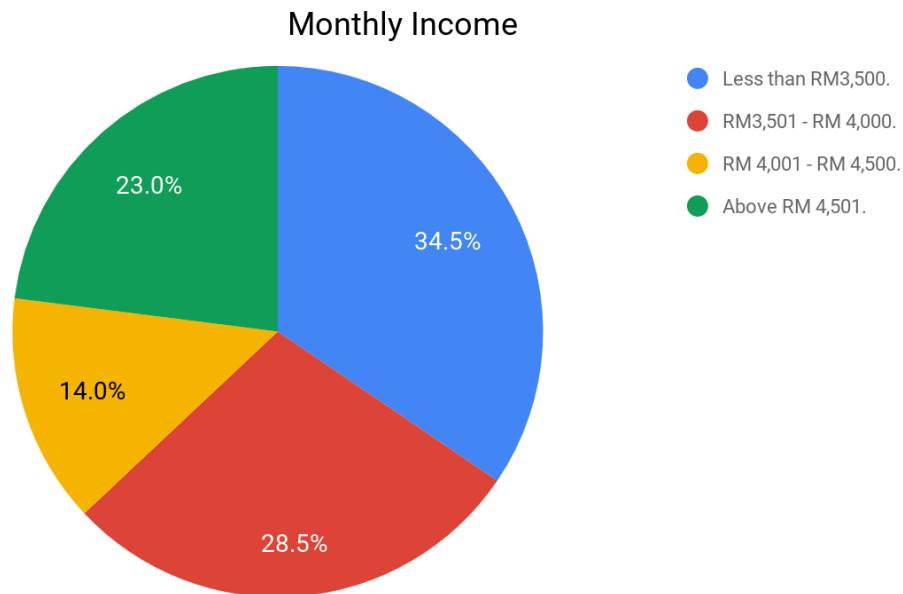
Source: Developed from the research.

Based on the Table and Figure of 4.5, there will be a total of 69 respondents (34.5%) are having RM 3,500 and below for their monthly income. Furthermore, total of 57 (28.5%) respondents are having monthly income between RM 3,501- RM4, 000 and 28 (14%) respondents are having monthly income between RM4, 001- RM4, 500. The balance of 46 (23%) respondents is having monthly income of RM4, 501 and above.

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4.1.2 Respondents General Information

There is the total five questions in Section B and the result had been collected the data from 200 respondents. The questions in Section B including do you use internet, do you know about online grocery shopping, do you know that Malaysia store provides online grocery shopping to consumers, which online groceries shopping website did you know in Malaysia and what are the important factors of using online groceries shopping.

4.1.2.1 Do You Use Internet

Table 4.6: Statistics of Do You Use Internet

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Yes	197	98.5	98.5	98.5
No	3	1.5	1.5	100
Total	200	100	100	

Source: Developed from the research.

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Figure 4.6: Percentage of Do You Use Internet

Do You Use Internet

No
1.5%

Yes
98.5%
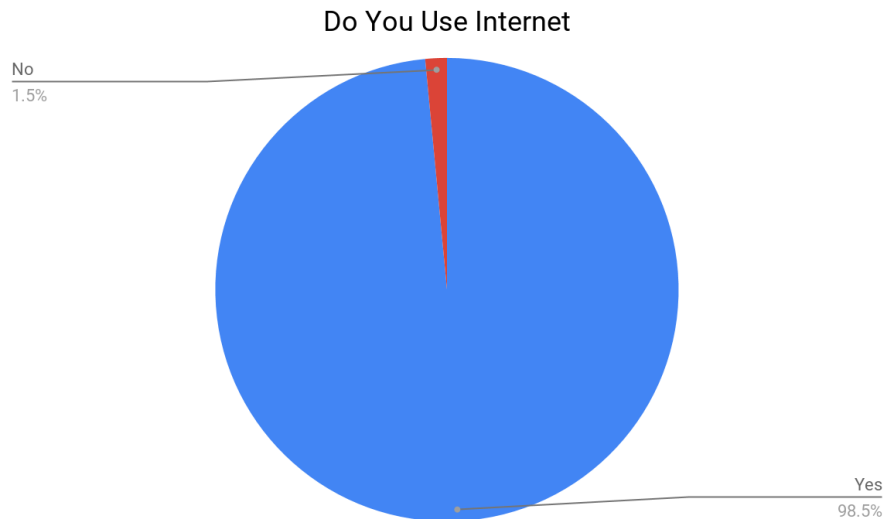
Source: Developed from the research.

Based on the Table and Figure of 4.6, there is a huge number of 197 (98.5%) respondents uses the internet while 3 (1.5%) respondents do not use the internet. In an advanced technology world, most of the generation X know how to use the internet because everything cannot leave without internet.

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4.1.2.2 Do You Know About Online Groceries Shopping

Table 4.7: Statistics of Do You Know About Online Groceries Shopping

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	173	86.5	86.5	86.5
No	27	13.5	13.5	100
Total	200	100	100	

Source: Developed from the research.

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Figure 4.7: Percentage of Do You Know About Online Groceries Shopping

Do You Know About The Online Grocery Shopping?

● Yes
● No

13.5%

86.5%
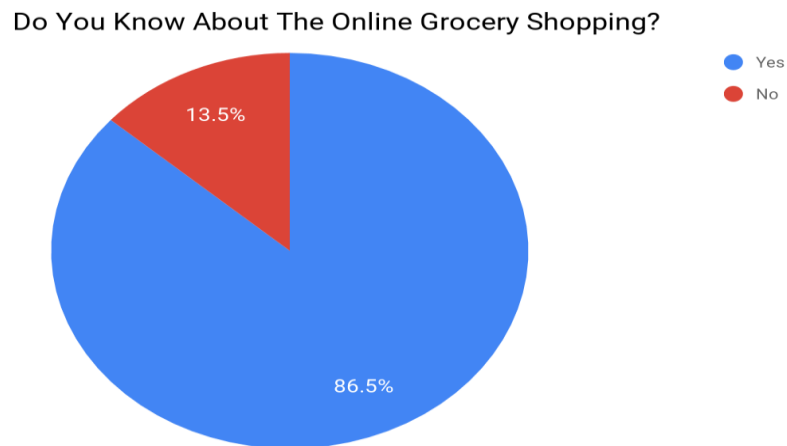
Source: Developed from the research.

According to table and figure of 4.7, there is a total of 173 (86.5%) respondents have a knowledge about the online groceries shopping. While, the rest of 27 (13.5%) respondents do not know about the online groceries shopping in Malaysia.

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4.1.2.3 Do You Know That Malaysia Store Provides Online Groceries Shopping to Consumers

Table 4.8: Statistics of Do You Know That Malaysia Store Provides Online Groceries Shopping To Consumers

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	151	75.5	75.5	75.5
No	33	16.5	16.5	92
No respond	16	8	8	100
Total	200	100	100	

Source: Developed from the research.

Figure 4.8: Percentage of Do You Know That Malaysia Store Provides Online Groceries Shopping To Consumers

Do You Know That Malaysia Store Provides Online Grocery Shopping To Consumers
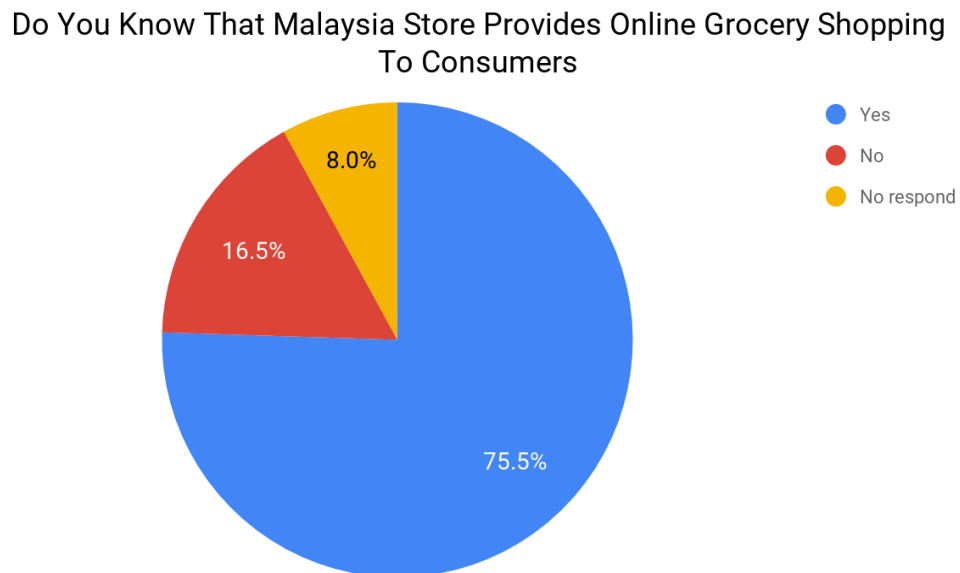
Source: Developed from the research.

According to the table and figure of 4.8, there is a total of 151 (75.5%) respondents know Malaysia store has provided the online groceries shopping service to their consumers. Besides, another 33 (16.5%) of respondents do not know Malaysia grocery store has online groceries shopping service. The rest of the 16 (8%) respondents do not respond to this question because the respondents do not have acknowledgement about the online groceries shopping. Therefore, the 16 respondents skipped this question that is mention on the questions. There are some reasons why respondents are refuse to answer the questions, such as the cases of "no interest", prompt ringing off", "general refusal" and "no time"(Natalja Menold, Cornelia Zuell, 2010).

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In addition, respondents refuse to answer because of the context is not explained. They are not willing to answer if the question is inappropriate. On the other hand, the question may very sensitive to the respondents so they are not willing to explore their information in the survey (Unwillingness to answer, 2018).

4.1.2.4 Which Online Groceries Shopping Website Did You Know in Malaysia

Table 4.9: Ranking of Which Online Groceries Shopping Website Did You Know in Malaysia

Online groceries shopping website	Frequency	Ranking
Tesco.	140	1
Jaya Grocer.	43	2
Soukai.	3	7
Supplycart.	4	6
Redtick.	7	5

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HappyFresh.	33	3
GrocerExpress	12	4
Others	8	-
No response	46	-

Source: Developed from the research.

Figure 4.9: Statistics of Ranking of Which Online Groceries Shopping Website Did You Know in Malaysia

Which Online Grocery Shopping Website Did You Know in Malaysia To Consumers

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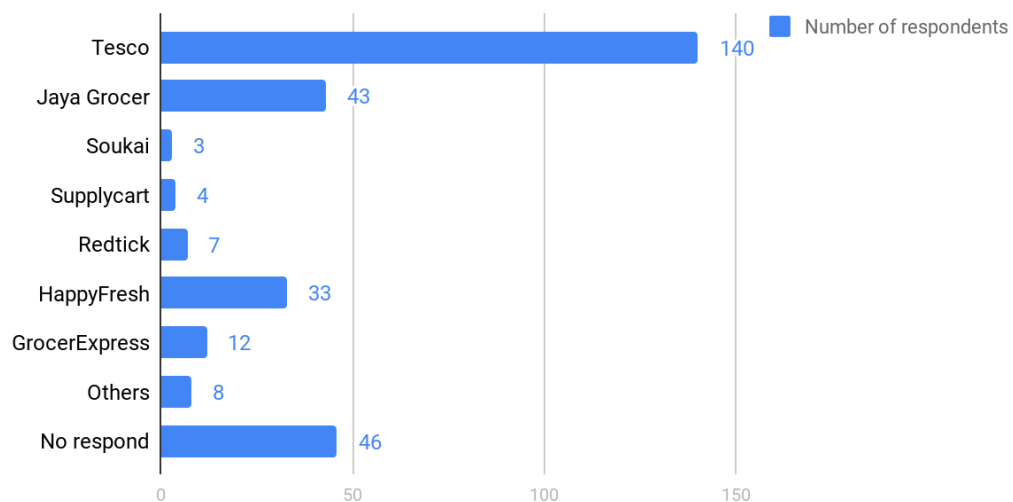
Source: Developed from the research.

In this question, the 200 respondents can choose to answer more than one answer. The top online groceries shopping website that is acknowledged by most of the respondents is Tesco. It consists of 140 respondents with 90.9% that acknowledge about the Tesco online grocery shopping website. Besides, Jaya Grocer was the second highest with response from 43 respondents at 27.9%. The third will be HappyFresh which consist of 33 respondents (21.4%). The following 3 respondents know about the Soukai, 4 respondents know about Supplycart, 7 respondents know about Redtick and the total of 12 respondents know the GrocerExpress website service. The balances of 46 respondents over 200 respondents do not answer in this question due to they do not have any awareness about the available online groceries shopping website in Malaysia. Lastly, there are 8 respondents knows others online groceries shopping such as Honestbee.

4.1.2.5 What Are the Important Factors of Using Online Groceries Shopping

Table 4.10: Percentage of what are the important factors of using online groceries shopping

	Rank	Frequency	Cumulative Frequency
Convenience	1 - Least important	5	5
	2 - Slightly important	20	25
	3- Fairly important	74	99
	4 - Most important	101	200
Perceived Ease of Use.	1 - Least important	8	8
	2 - Slightly important	36	44
	3- Fairly important	105	149
	4 - Most important	51	200
Subjective Norms.	1 - Least important	18	18
	2 - Slightly important	53	71

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	3- Fairly important	102	173
	4 - Most important	27	200
Trust	1 - Least important	9	9
	2 - Slightly important	40	49
	3- Fairly important	62	111
	4 - Most important	89	200

Source: Developed from the research.

Figure 4.10 Statistic of what are the important factors of using online groceries shopping

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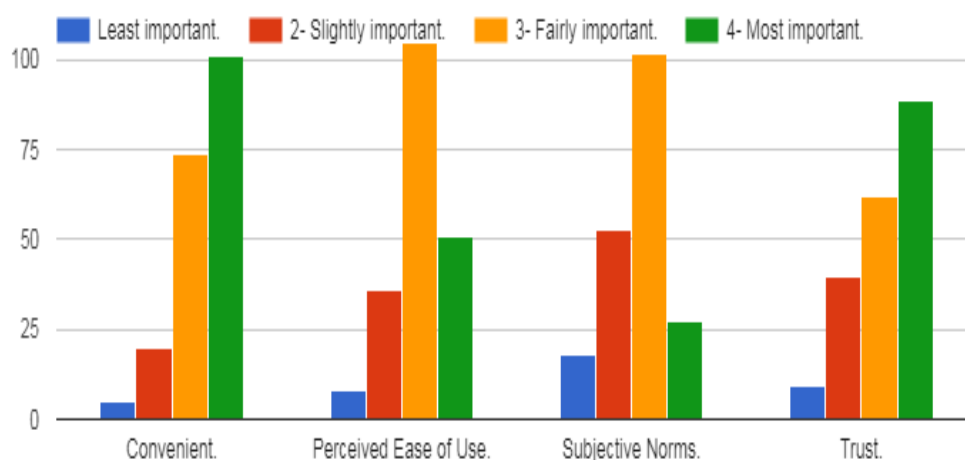
Source: Developed from the research

Based on the result, the table and figure 4.10 shows the raking of the factors that are important on adopting the online groceries shopping. The first factor is convenience. The total of 200 respondents, 5 of the respondents thinks that convenience is least important while 101 respondents think that convenience is the most important factors on adopting the online groceries shopping. Besides that, there are 20 respondents' thinks that it is slightly important and 74 respondents' thinks that it is fairly important.

The second factor is perceived ease of use. There are 105 respondent thinks that perceived ease of use is fairly important while 8 respondents think that it is least important. There are 36 respondents think that it is slightly important and 51 respondents think that it is most important factor to adopt the online groceries shopping.

Thirdly, 102 respondents stated that subjective norms as the factor to adopt the online groceries shopping is fairly important to them while 18 respondents think that subjective norms are least important. The subjective norms are slightly important to 53 respondents and 27 respondents' thinks that it is most important.

Lastly, trust is also one of the factors for adopting the online groceries shopping. It is the most important factor to 89 respondents and 9 respondents stated that trust is least important. Besides, 40 respondents stated that trust is slightly important and 62 respondents think that trust is fairly important.

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4.1.3 Central Tendencies Measurement of Constructs

In this part, Central Tendencies Measurement of Constructs involves the measurement of the result from the questionnaire distributed by the researchers to 200 respondents where it involves the independent variables (conveniences, perceived ease of use, subjective norms and trust) and the dependent variables (adoption of online groceries shopping).

Table 4.11: Measurement of Constructs

Variables	Mean	Standard Deviation
Adoption of online groceries shopping	16.6750	3.50869
Convenience	19.5400	3.41272
Perceived ease of use	19.2450	3.37519
Subjective norms	17.2000	3.10778
Trust	18.2350	3.13831

Source: Developed from the research

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Based on the table above, it shows the result of mean and standard deviation of the independent variables and dependent variables which involves 5 questions for each variable.

The dependent variable of this study is adoption of online groceries shopping. After collecting the result of the questionnaire, the result is measured using the Statistical Packaging for the Social Science (SPSS). The dependent variables show the mean of 16.6750 and the standard deviation of 3.50869.

The independent variables of this study are conveniences, perceived ease of use, subjective norms and trust. Firstly, convenience involves 19.5400 of mean and 3.41272 of standard deviation. Secondly, perceived ease of use is having 19.2450 of mean and 3.37519 of standard deviation. Thirdly, in the result of the SPSS, it shows that subjective norms include a mean of 17.2000 and 3.10778 of standard deviation. Lastly, the mean of 18.2350 and the standard deviation of 3.13831 is the result of independent variable, trust.

As a summary, the highest mean is the independent variable, convenience and the lowest mean is the dependent variable, adoption of online groceries shopping. While the highest standard deviation is the dependent variable, adoption of online groceries shopping and the lowest standard deviation is the independent variable, subjective norms.

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4.2   Scale Measurement

4.2.1 Reliability Analysis Test

Reliability analysis found by attaining the proportion of systematic variation in a scale, where it can determine the significate between the scores obtained from different administrations of the scale. As a result, if the association in reliability analysis is high, the scale yields consistent results and is therefore reliable (Reliability Analysis, 2018).

Table 4.12: Reliability Analysis Test of Dependent and Independent Variables

Variables	Cronbach's Alpha	No. of items
Adoption of online groceries shopping	0.710	5
Convenience	0.818	5
Perceived ease of use	0.861	5
Subjective norms	0.707	5
Trust	0.726	5

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Source: Developed for the research

The table above shows the reliability analysis test of dependent variable and independent variables. The overall result of the reliability analysis test, it shows that the independent variable, perceived ease of use is having the strongest reliability with the alpha value of 0.861 compared to the others independent variables and the dependent variable. While the independent variable, subjective norms shows the lowest alpha value, 0.707 compared to the others independent variables and the dependent variable. By the sequence, the second highest of the alpha value is the independent variable, perceived ease of use with the value of 0.818 while the second lowest alpha value is 0.710 represented by the dependent variable, adoption of online groceries shopping. Lastly, the independent variable, trust consists of the alpha value of 0726.

In conclusion, all of the constructs of independent variables and dependent variables, the alpha values are more than 0.7 which means that all of the constructs are in the strong internal consistency.

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4.3 Inferential Analyses

4.3.1 Pearson's Correlation Analysis

Pearson's Correlation analysis defines the linear relationship between the dependent and independent variables. Besides, it also examines whether the result of correlation coefficient is significant. To define the linear relationship between the dependent and independent variables, the result in value of correlation coefficient will be in between -1 to +1. The greater the value of coefficient, the relationship between the variables will become stronger. If the result in value is 1, it is a perfect linear relationship but if the result value is close to zero, and then it indicates with no linear relationship between the variables. (Interpret the key results for Correlation, 2017)

P- Value is to determine the result whether is significant and hypothesis is to test the validity result. When the p- value is lower than 0.05, it indicates strong evidence against the null hypothesis, so reject the null hypothesis. But the p-value higher than 0.05, it indicates weak evidence against null hypothesis, so fail to reject the null hypothesis. (Deborah J. Rumsey, n.d)

Table 4.13: Correlation Matrix for Five Constructs

	Convenience	Perceived ease of use	Subjective norms	Trust	Adoption of online groceries shopping
Convenience	1				
Perceived ease of use	0.672**	1			
Subjective norms	0.430**	0.344**	1		
Trust	0.330**	0.267**	0.343**	1	
Adoption of online groceries shopping	0.468**	0.370**	0.500**	0.383**	1

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

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

Source: Developed for the research

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4.3.1.1   Implication of Correlations

Hypothesis 1: There is a significant relationship between *convenience and adoption of online groceries shopping* among generation X.

 Reject H_0 if p-value < 0.05

Based on table 4.13, it shows that the convenience had a significant moderate positive linear correlation relationship to the adoption of online groceries shopping, with the r- value of 0.468. The p- value of this research is at 0.000, where it is lower than α at 0.05. It indicates that there is a significant linear relationship between the both independent variable and dependent variable, therefore the null hypothesis is rejected.

Hypothesis 2: There is a significant relationship between *perceived ease of use and* adoption *of online groceries shopping* among generation X.

 Reject H_0 if p-value < 0.05

As shown in table 4.13, the perceived ease of use had a significant moderate positive linear correlation relationship to the adoption of online groceries shopping, with the r- value of 0.370. As the p - value is at 0.000 which is lower than α at 0.05, indicates that there is a significant linear relationship between the both independent variable and dependent variable, therefore the null hypothesis is rejected.

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Hypothesis 3: There is a significant relationship between *subjective norms and adoption of online groceries shopping* among generation X.

Reject H_0 if p-value < 0.05

In table 4.13, it shows that the r- value is at 0.500 where the subjective norms had a significant moderate positive linear correlation relationship to the adoption of online groceries shopping. Therefore, the p- value is 0.000, lower than α at 0.05 shows that there is a significant linear relationship between the both independent variable and dependent variable, therefore the null hypothesis is rejected.

Hypothesis 4: There is a significant relationship between *trust and adoption of online groceries shopping* among generation X.

Reject H_0 if p-value < 0.05

Based on table 4.13, it shows that the trust had a significant moderate positive linear correlation relationship to the adoption of online groceries shopping, with the r- value of 0.383. The p- value of this research is at 0.000, where it is lower than α at 0.05. It indicates that there is a significant linear relationship between the both independent variable and dependent variable, therefore the null hypothesis is rejected.

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4.3.2   Multiple Regression Analysis

Table 4.14: Multiple Regression Analysis Model Summary

Model	R	R Square (R^2)	Adjusted R Square	Std. Error of the Estimate
1	.599[a]	.359	.345	2.83869

Source: Developed for the research

The table 4.14 shows, the correlation of the model, r- value is 0.599, where it is a strong positive linear correlation. In addition, the coefficient of determination, r^2 is 0.359 that can be understand that it is representing 35.9% of the variation in adoption of online groceries is influenced by convenience, perceived ease of use, subjective norms and trust. 64.1% of the variation in adoption of online groceries is left unexplained, but it may be explained by other factors. Furthermore, the model has an adjusted multiple coefficient of determination, $R^2_{a\ of}$ 0.345, where it is always smaller than R^2 because it is considering that both of the sample size, n and the quality of β parameters in the model.

Table 4.15: Table of ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	878.535	4	219.634	27.256	0.000[b]
Residual	1571.340	195	8.058		
Total	2449.875	199			

Source: Developed for the research

$$H_0: \beta_1 = \beta_2 = \beta_3 = 0$$

$$H_1: \text{At least one of the coefficients is nonzero}$$

In table 4.15, at the significant level of α at 0.05 and the p- value is at 0.000 that it is less than α value. It is showing that there will be at least one of the coefficients of the four predictors is nonzero. Therefore, the hypothesis will be excluded or rejected. However, there will be sufficient evidence to conclude that the multiple regression models are adequate at α of 0.05 and the F-statistic is significant with the F- value at 27.256.

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Table 4.16: Output of Multiple Regression Analysis Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.996	1.579		.631	.529
	Convenience	.243	.084	.236	2.895	.044
	Perceived ease of use	.055	.081	.053	.683	.495
	Subjective norms	.359	.074	.318	4.850	.000
	Trust	.203	.070	.181	2.897	.040

Source: Developed for the research

The new multiple regression equation is form as following:

A = 0.996 + 0.243 (C) + 0.055 (PEOU) + 0.359 (SN) + 0.203 (T)

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	A = Adoption of online groceries shopping
Where	C = Convenience
	PEOU = Perceived ease of use
	SN = Subjective norms
	T = Trust

$$H_0: \beta_i = 0$$

$$H_1: \beta_i \neq 0$$

$$\text{Where } i = 1, 2, 3, 4$$

As shown in table 4.16, the estimated towards the adoption of online groceries shopping is at 0.996 point where β_o is 0.996. Therefore, it indicates that the attitude towards adoption of online groceries shopping is expected to be at 0.996 point when the points of all the independent variables, conveniences, perceived ease of use, subjective norms and trust are set to be in zero value.

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4.3.2.1   Implication of Correlations

Hypothesis 1: There is a significant relationship between *convenience and adoption of online groceries shopping* among generation X.

 Reject H_0 if p-value < 0.05

Based on table 4.16, it shows that the estimated attitude towards the adoption of online groceries shopping takes an expectation to increase by 0.243 point where β_1 at 0.243 for every point increased for convenience, by maintaining the constant of other variables. Furthermore, the p - value is at 0.044 which is smaller than α at 0.05, where convenience has a significant effect to Generation X towards adoption of online groceries shopping. Therefore, null hypothesis is rejected.

Hypothesis 2: There is a significant relationship between *perceived ease of use and adoption of online groceries shopping* among generation X.

 Reject H_0 if p-value < 0.05

In table 4.16, the estimated attitude towards the adoption of online groceries shopping takes an expectation to increase by 0.055 point at $\beta 2$ equals to 0.055 for every point increased for perceived ease of use, by maintaining the constant of other variables. When the p - value is 0.495, where it is bigger than α at 0.05, means perceived ease of use

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has a significant effect to Generation X towards adoption of online groceries shopping. Therefore, null hypothesis is accepted.

Hypothesis 3: There is a significant relationship between *subjective norms and adoption of online groceries shopping* among generation X.

Reject H_0 if p-value < 0.05

Based on table 4.16, the estimated attitude towards the adoption of online groceries shopping takes an expectation to increase by 0.359 point at β_3 equals to

0.359 for every point increased for subjective norms, by maintaining the constant of other variables. Furthermore, when the p - value is 0.000 where it is smaller than α at 0.05, where subjective norms has a significant effect to

Generation X towards adoption of online groceries shopping. Therefore, null hypothesis is rejected.

Hypothesis 4: There is a significant relationship between *trust and adoption of online grocery shopping* among generation X.

Reject H_0 if p-value < 0.05

Based on table 4.16, the estimated attitude towards the adoption of online groceries shopping takes an expectation to increase by 0.203 point at $\beta 4$ equals to

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0.203 for every point increased for trust, by maintaining the constant of other variables. Furthermore, when the p - value is 0.040 where it is smaller than α at 0.05, trust has a significant effect to Generation X towards adoption of online groceries shopping. Therefore, null hypothesis is rejected.

4.4 Conclusion

In the conclusion, researchers outlined all of the respondents' demographic profile and general information that have been showed the descriptive analysis. Besides, the reliability test of dependent and independent variables have been carried out under the section of scale measurement. The result of all the variables is more than 0.7 and above of Cronbach's alpha which mean there are a strong internal consistency.

Lastly, the value of Pearson's Correlation analysis and Multiple Regression analysis will be mentioned in the section of inferential analysis. The result shows that the null hypothesis of perceived ease of use has been accepted among all the independent variables. Convenience, subjective norms and trust has the most significant relationship to the adoption of online groceries shopping. In Chapter 5, further discussion and conclusion will be detailed.

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CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0   Introduction

Chapter 5 contains five sections that needed to be conclude including the result of descriptive analysis, Cronbach's Alpha test, central tendency, Pearson correlation analysis and multiple regression analysis from chapter 4. Besides, it also outlined the implication of study, limitation study, and will be giving the recommendations for future research along with the conclusion.

5.1   Summary of Statistical Analyses

5.1.1 Descriptive Analysis

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5.1.1.1 Demographic Profile

Based on the data collected in chapter 4, there are total of 121 (60.5%) respondents are female and male respondents stands about 79 (39.5%) respondents. Besides, most of the respondents are aged between 35 - 39 years old which stands about total 151 (75.5%) respondents, 18 (9%) respondents are aged between 40-44 years old, 10 (5%) respondents aged between 45-49 years old and 21(10.5%) respondents are aged between 50-55 years old. Follow by the ethnicity, there are highest rate of 187 (93.5%) respondents are Chinese while Malay respondents are the lowest where there is only 5 (2.5%) of them in the total of 200 respondents and total of 8 (4%) respondents are Indian. For the highest education level, majority are undergraduate holders which consist the total of 105 (52.5%) respondents and the second highest in the option are postgraduate holders which consist of total 29 (14.5%) respondents. Moreover, 24 (12%) respondents are SPM holders, 2(1%) respondents are A-Level holders, 10 (5%) respondents are Foundation holders, 20 (10%) respondents are Diploma holders and 8 (4%) respondents are Master holders. The rest of 2(1%) respondents are others education level holders. Next, most of the respondents are having a monthly income that is less than RM3, 500 which consist of 69(34.5%) respondents. 57 (28.5%) respondents are holding monthly income between RM3, 501- RM4, 000 follow by the total of 28 (14%) respondents are having monthly income between RM4, 001- RM4, 500 and the rest of 46 (23%) respondents are having a monthly income at RM4, 501 and above.

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5.1.1.2   General Information

In addition, total of 200 respondents only 3 (1.5%) respondents do not use internet and the rest of 197 (98.5%) respondents do use the internet. Besides, there are 25(13.5%) respondents do not know about the online grocery shopping and the rest of 173 (86.5%) respondents do have the knowledge about the online groceries shopping. Furthermore, 151 (75.5%) respondents know that grocery stores have provide online grocery shopping service to consumers in Malaysia but 33 (16.5%) of them do not know there is the online grocery shopping service to consumers which provided by Malaysia grocery stores. The rest of 16 (8%) respondents did not respond to this question because as mentioned in the questionnaire that the respondents who didn't answer the question on "Do you know about online grocery shopping?" will have to skip the question on "Do you know that Malaysia store provides online grocery shopping to consumers? "

Besides, the most popular online grocery shopping website that consumers know is Tesco and it consist of 140 respondents out of 200 respondents. 43 respondents out of 200 of respondents have more awareness on Jaya Grocer, then follow up by Happyfresh have a total of 33 respondents who know them have online website to purchase the grocery. Moreover, 12 respondents out of 200 respondents know about GrocerExpress provides online groceries website, 3 respondents out of 200 of respondents know about Soukai online groceries website, 4 respondents out of 200 respondents know about Supplycart, and 7 respondents out of 200 respondents know Redtick. The rest of 8 respondents given other options of online groceries website, such as Honestbee which is one of the online grocery shopping website in Malaysia.

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Based on the result, most of the generation X thinks that convenience is a factor influencing the adoption of online groceries shopping as 101 respondents stated in the result, 74 respondents think that convenience is a fairly important factor, 20 respondents thinks convenience is a fairly important factor and only 5 respondents think that convenience is a least important factor. Secondly, 105 respondents think that perceived ease of use is a fairly important factor influencing the adoption of online groceries shopping, 51 respondents think that perceived ease of use is the most important factor, 36 respondents think that perceived ease of use is a slightly important factor and 8 respondents think that perceived ease of use is a least important factor. Thirdly, most of the generation X thinks that subjective norms are a factor influencing the adoption of online groceries shopping is a fairly important factor as 102 respondents stated in the result, 27 respondents think that subjective norms are the most important factor, 53 respondents think subjective norms is a slightly important factor and only 18 respondents think that subjective norms are a least important factor. Lastly, 89 respondents think that trust is the most important factor influencing the adoption of online groceries shopping, 62 respondents thinks that trust is a fairly important factor, 40 respondents thinks that trust is a slightly important factor and 9 respondents think that trust is a least important factor.

5.1.1.3 Central Tendencies Measurement of Constructs

Firstly, the independent variable, convenience had the highest mean with 19.5400 and the lowest mean is the dependent variable, adoption

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of online groceries shopping with 16.6750. The second highest mean is the independent variable, perceived ease of use with 19.2450, the third highest mean is the independent variable, trust with 18.2350 and the second lowest mean is the independent variable, subjective norms with 17.2000.

While the highest standard deviation is the dependent variable, adoption of online groceries shopping with 3.50869 and the lowest standard deviation is the independent variable, subjective norms with 3.10778. The second highest standard deviation is the independent variable, convenience with 3.41272, the third highest standard deviation is the independent variable, perceived ease of use with 3.37519 and the second lowest standard deviation is the independent variable, trust with 3.13831.

5.1.2   Scale Measurement

In this research, there are total of five constructs which is a total of 25 object that needed to be tested using the Cronbach's Alpha method. This method will be carrying out by using the Statistical Packaging for the Social Science (SPSS). According to the result in Chapter 4, the highest value of Cronbach's Alpha is 0.861, the independent variable, perceived ease of use while the lowest value is 0.707, the independent variable, subjective norms. The second highest value is 0.818, the independent variable, convenience, the third highest value is 0.726, independent variable, trust and the second lowest value is 0.710, the dependent variable, adoption of online groceries shopping. In conclusion,

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the entire test is reliable and accurate where each of the Cronbach's Alpha value is above the value of 0.7.

5.1.3 Inferential Analysis

5.1.3.1 Pearson's Correlation Analysis

According to the result in Chapter 4, all the independent variable in this research is having relationship with the dependent variable, adoption of online groceries shopping. The result stated that the highest correlation value is the relationship between subjective norms and adoption of online groceries shopping with the value of 0.500. The lowest correlation value is the relationship between perceived ease of use and adoption of online groceries shopping with the value of 0.370. The correlation value of the relationship between convenience and adoption of online groceries shopping is 0.468 and the correlation value of the relationship between trust and adoption of online groceries shopping is 0.383.

5.1.3.2 Multiple Regression Analysis

Table 4.13 in chapter 4 shows the R square value at 0.359 which the value implies 35.9% of the adoption of online groceries is influenced

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by convenience, perceived ease of use, subjective norms and trust. While the adjusted R square value is at 0.345.

In Chapter 4, table 4.15 is the output of multiple regression analysis coefficients, shows that there are of three independent variable, convenience, subjective norms and trust that shows a significant relationship with the dependent variable, adoption of online groceries with 0.044, 0.000 and 0.040 respectively which is less than 0.05 while the independent variable, perceived ease of use don't show a significant relationship with the dependent variable, adoption of online groceries with 0.495 which is more than 0.05.

As shown in table 4.15, the Beta value for the independent variable, subjective norms are the strongest Beta value with 0.359 that having a strongest impact on the dependent variable, adoption of online groceries and the least strong is the independent variable, perceived ease of use with 0.055 that having a least impact to the dependent variable, adoption of online groceries. Thus, the multiple regression equation is in the form as following: -

A = 0.996 + 0.243 (C) + 0.055 (PEOU) + 0.359 (SN) + 0.203 (T)

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5.2   Discussions of Major Findings

The main objective of this research is to measure the relationship between the independent variables, convenience, perceived ease of use, subjective norms and trust towards the adoption of online groceries of Generation X. In this part, the researchers provide discussions on major findings to validate the research objectives and hypotheses.

Table 5.1 Summary of the Results for Hypotheses Testing

Hypotheses	Unstandardized Coefficient Beta	t-value	Significant Level	Result
Hypothesis 1: There is a significant relationship between convenience and adoption of online grocery shopping among generation X .	0.243	2.895	0.044	Supported

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Hypothesis 2: There is a significant relationship between perceived ease of use and adoption of online grocery shopping among generation X.	0.055	0.683	0.495	Not Supported
Hypothesis 3: There is a significant relationship between subjective norms and adoption of online grocery shopping among generation X.	0.359	4.850	0.000	Supported
Hypothesis 4: There is a significant relationship between trust and adoption of online grocery shopping among generation X.	0.203	2.897	0.040	Supported

Source: Developed for the research

Based on the table above, the Beta value shows that the independent variable, subjective norms is having a highest beta value with 0.359 which means that it is able to increase the point of the dependent variable, adoption of online groceries for every

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point increase in the subjective norms with constants of other variable. However, the independent variable, perceived ease of use is having a weak impact to the increase the point of the dependent variable, adoption of online groceries for every point increase in the perceived ease of use with constants of other variable where the Beta value is at 0.055.

Therefore, the result show that the independent variable, convenience, subjective norms and trust are significant at the 5% level of significant where the p- value is at 0.044, 0.000 and 0.040 respectively which is less than 0.05 by rejecting the null hypothesis. In conclusion, the independent variable, convenience, subjective norms and trust are supported by this research and having a positive relationship to the research question and research objective while the independent variable, perceived ease of use is not supported by the research because the p- value is more than 0.05 at 0.495.

There are reasons found to explain the reason why the independent variable, perceived ease of use is having a negative relationship on this research and why the independent variable, perceived ease of use is not influencing the Generation X on adopting the online groceries shopping. The reason is the perceived risk, which is a possibility can measure of the consumer's perceived ease of use and perceived usefulness towards the purchasing from online. The existing of perceived risk consists of choosing and searching the information of products and services before making the purchase decisions. Besides, there are several perceived risk during the purchasing process, such as the risk of financial, performance, physical, social, convenience and psychological. For instance, financial risk is the monetary loss potential, performance risk is the expectation of product performance, physical risk is the product safety problems, social risk is consumers' perception towards a product, convenience risk is problem of inconvenience to purchase the product and services, and psychological risk is the important of self- image on purchasing a product. (Hui Li & Wen Huang, 2009)

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5.3   Implications of the Study

5.3.1 Managerial Implications

The reason of having this study is to find out the factors, convenience, perceived ease of use, subjective norms and trust which will influence the Generation X on adopting the online groceries shopping. This study could help the groceries company to understand more on their target consumers and get more new consumers to try on their website to purchase groceries. This study also could help the companies to build relationship with their customers and know the most important factor to attract customers of Generation X to purchase groceries through online.

In the research, the statistic shows that perceived ease of use is having no significant relationship with the adoption of online groceries shopping. It means that perceived ease of use is not a most important factor for the consumers of Generation X to adopt the online groceries shopping. For a groceries company, they should had understood the most important factor for the consumers of Generation X to purchase through their online website. This is important for the company to maintain the quality of their service and provide the consumers a good value on the beneficial or advantages of their online website so that the consumers will know the value

Then, subjective norms, convenience and trust have significant relationship with the adoption of online groceries shopping. Based on the convenient, company should provide consumers more easy ways to connect on their website and more payment methods to purchase the products. Subjective norms will be existed which consumers will recommend something to their

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family, peers or friends with a strong word of mouth while the company is having a good reputation on their company's website. Lastly, trust is important for the company to maintain the quality of their service and provide the consumers a good value on the beneficial or advantages of their online website.

5.4 Limitations of the Study

During the process of this study, the researchers face some limitations that will make the researchers having barriers to continue on the study. Firstly, this study only uses quantitative research that it might not be accurate enough to obtain the answer from the target respondent where they unable to explain further on the answer they had chosen for the question given in the questionnaire. Others researchers will be working on the quantitative and qualitative research to the respondents so they can collect with more accurate data with accurate result.

Secondly, the target respondent of this study is Generation X which aged between 35 to 55 years old. The Generation X may face problem answering the questionnaire where the questionnaire is distributed through Google form due to they might have problem looking at the questionnaire is on their phone with a small screen or the oldest respondents do not know how to use Google form.

Thirdly, this research is targeting on the respondents of Generation X. Although generation X people are always purchase grocery in the store but they have not reach the level of follow up to the latest technology. Besides, the other group of generation can be including in this research such a Generation Y. Currently, Generation Y and most of them start to purchase grocery, for example students will purchase grocery for

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cooking at home in order to save more money. Furthermore, they do understand the knowledge of latest technology and the usage of using it. So, it will be easy to collect the data from the generation y and most of them have more experiences to purchase items through online.

Fourthly, consumers will rather purchase physical store's products and services rather than purchasing groceries through online because consumers worry about the quality of the groceries (Sulastri, Nawi, Abdullah & Latif, 2017).

Lastly, the consumers still prefer to purchase grocery through physical stores because of the risk of payment with the credit card or debit card and it will cause to disrupt consumers from purchasing grocery through online (Pauzi, Thoo, Tan, Muharam, & Talib, 2017). Since the E-commerce started to growth in Malaysia, so there are increasing the existing cases of cyber-crimes. Furthermore, the details of bank and consumers' credit card will be misused which will increase the issues of privacy (Advantages and Disadvantages of Online Shopping, 2006). Thus, there is no consent on what that will influences consumers to purchase grocery online.

5.5   Recommendations for Future Research

First of all, researchers are encouraged to do the quantitative and qualitative research to collect more accurate in data in order to conduct an accurate result. Besides, it may can include the moderator variable and mediator variable to see the possibility of relationship between others variables. Mediating variable is a variable that will affect in between the independent and dependent variables, it can state clearly in between the variables there is another influences happen in the relationship. So, researchers can able to understand more during the research.

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Then, researchers can distribute not only the online Google form but also distribute the hard copy questionnaire for those generation X who do not understand how to use the online Google form. It can be more accurate for teaching them one by one rather than they just simply choose any answer without reading the instruction from the questions. It will be take more time on it but the most important is to collect accurate data and get efficiency result in this research.

Besides, researchers can extend the target population on the respondents of Generation Y. The more different group of respondents can get the different data and result in this research. The result can be defined on how the variables will influence on the adoption of online grocery shopping from Generation X and Generation Y.

Next, Retailers should always guarantee that the groceries product are in a better quality. It will help to build the trust from the customers so they will reduce the chances to go the physical store for purchasing the groceries products.

Last, risk of payment can be reducing if there is a stronger security of protecting the information of consumers or bank. Government can also increase the attention of cybercrimes in order for all the consumers who using online purchase can be feel more safety.

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5.6   Conclusion

In conclusion, the research had been effectively completed where the objective of the study is achieved as the relationship between the dependent variable, adoption of online groceries shopping and the independent variables, convenience, perceived ease of use, subjective norms and trust are studied in the research. There are three independent variables, convenience, subjective norms and trust that are having significant relationship with the dependent variable, adoption of online groceries shopping while the independent variables, perceived ease of use do not have a significant relationship with the dependent variable, adoption of online groceries shopping. However, some of the implication is discussed in this chapter and some recommendation is recommended to the future research study to make sure that the future research can be done in a more effective manner.

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Appendix A: Survey Questionnaire

UNIVERSITI TUNKU ABDUL RAHMAN (UTAR)

FACULTY OF ACCOUNTANCY AND MANAGEMENT (FAM)

Bachelor of International Business (Hons)

A Study on Factors Influencing the Adoption of Online Groceries Shopping among Generation X in Klang Valley

Survey Questionnaire

Dear respondents,

We greatly appreciate you for taking the time and efforts to complete this questionnaire. This questionnaire will only take you 10-15 minutes to complete.

We are students from Universiti Tunku Abdul Rahman (UTAR), Faculty of Accountancy and Management (FAM), pursuing degree in Bachelor of International Business (Hons). We are currently conducting a study on **"A Study on Factor Influencing The Adoption of Online Groceries Shopping among Generation X in Klang Valley"** for our final year project. The objective of this research project is to understand the factors that will be influencing generation X's to adoption the online groceries shopping.

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Your responses are essential for us to complete our study. The information gathered from this questionnaire is strictly for academic purposes and we will assure that all information that you provided to us will be kept **PRIVATE AND CONFIDENTIAL**. Thank you for your participation and cooperation in this study.

Student Name	Email/ Contact number
Carine Cheong Ji Ling	Liingliing52@gmail.com 0182610507
Lee Jia Ying	Jylifes95_95@hotmail.com 01111223213

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Section A: Demographic Profile

INSTRUCTION: Please read **EACH** question carefully and specify your appropriate answer by placing a **TICK (√)** in the boxes given.

Each question should have **ONE** answer.

1. Gender
   - ☐ Male
   - ☐ Female

2. Age
   - ☐ 35 - 39 years
   - ☐ 40 - 44 years
   - ☐ 45 - 49 years
   - ☐ 50 - 55 years

3. Ethnicity
   - ☐ Malay
   - ☐ Chinese
   - ☐ Indian
   - ☐ Others: _____

4. Highest Education Level
   - ☐ SPM
   - ☐ A-Level
   - ☐ Foundation
   - ☐ Diploma
   - ☐ Undergraduate
   - ☐ Postgraduate
   - ☐ Master
   - ☐ Others: _____

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5. Monthly income

☐ Less than RM 3500

☐ RM 3501 - RM 4000

☐ RM 4001 - RM 4500

☐ Above RM 4501

Section B: General Questions

INSTRUCTION: Please read **EACH** question carefully and specify your appropriate answer by placing a **TICK (√)** in the boxes given.

Each question should have **ONE** answer otherwise stated specifically.

1. Do you use Internet?

☐ Yes

☐ No

2. Do you know about online groceries shopping?

☐ Yes

☐ No (If no, proceed to question 5)

3. Do you know that Malaysia store provides online groceries shopping to consumers?

☐ Yes

☐ No (If no, skip Question 4 and proceed to Question 5)

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4. Which online groceries shopping website did you know in Malaysia? (Can choose more than one answers)

□ Tesco

□ Jaya Grocer

□ Soukai

□Organic4u

□Supplycart

□ Redtick

□ HappyFresh

□ GrocerExpress

□Others:_____

5. What are the important factors of using online groceries shopping?

INSTRUCTION: Please **RANK** the factors which are important that will affect the most on adoption of online groceries shopping from 1-4, (Least Important – Most Important)

	Least important	Slightly important	Fairly important	Most important
Convenient	1	2	3	4
Perceived Ease of Use	1	2	3	4
Subjective Norms	1	2	3	4
Trust	1	2	3	4

Section C

INSTRUCTION: Based on each statement below, please **CIRCLE** on the most appropriate response to indicate the importance rating of attributes with the statement on a scale of 1 to 5 as below.

1 = Strongly Disagree   2 = Disagree

3 = Neutral   4 = Agree

5 = Strongly Agree

No.	Adoption of Online Groceries Shopping	Strongly Disagree	Disagree	Neutral	Agree	Strongly A
1	I don't have transportation to go physical shop.	1	2	3	4	5
2	Online groceries shopping could easily get offers or discounted prices.	1	2	3	4	5
3	I don't need to deal with sales people.	1	2	3	4	5
4.	Groceries shopping through physical store shopping is tiring.	1	2	3	4	5
5.	Using the internet to buy a product rather than from the physical store is a good idea.	1	2	3	4	5

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No.	**Convenience**	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Online groceries shopping is use to reduce the hassle in terms of traffic congestion and finding parking space.	1	2	3	4	5
2.	Online groceries shopping is use to reduce the hassle in terms of store crowds and queuing during payment.	1	2	3	4	5
3.	Online groceries shopping allows shopping quickly.	1	2	3	4	5
4.	Online groceries shopping easy to find the desired grocery products.	1	2	3	4	5
5.	Online groceries shopping makes daily life planning easier.	1	2	3	4	5

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No.	Perceived ease of use	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Online groceries shopping is easy to learn to use the online shopping website will be easy for me.	1	2	3	4	5
2.	It is be easy for me to follow the procedures when ordering groceries online.	1	2	3	4	5
3.	Online groceries shopping easy to use own mobile device (eg: smartphones, tablets).	1	2	3	4	5
4.	Online groceries shopping is easy to order products online.	1	2	3	4	5
5.	Online groceries shopping is easy to navigate through the website of an online store.	1	2	3	4	5

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No.	Subjective norms	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Most people who are important to me and my family do not think that we should incorporate Online groceries shopping to our everyday lives	1	2	3	4	5
2.	I will use Online groceries shopping if the service is widely used by people in my community.	1	2	3	4	5
3.	Media's influence on your online groceries purchase.	1	2	3	4	5
4.	Family's influence on your online groceries purchase.	1	2	3	4	5
5.	Friend's/ peer's influence on your online groceries purchase.	1	2	3	4	5

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| No.	Trust	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	There are too many untrustworthy shops on the internet.	1	2	3	4	5
2.	The product ordered online may be sent to wrong place.	1	2	3	4	5
3.	The product ordered online may arrive in a damaged condition.	1	2	3	4	5
4.	The online grocery web site commits their promise.	1	2	3	4	5
5.	Reliability of product descriptions.	1	2	3	4	5

Thank you for your precious time to complete this questionnaire. Your cooperation and participation are sincerely appreciated.
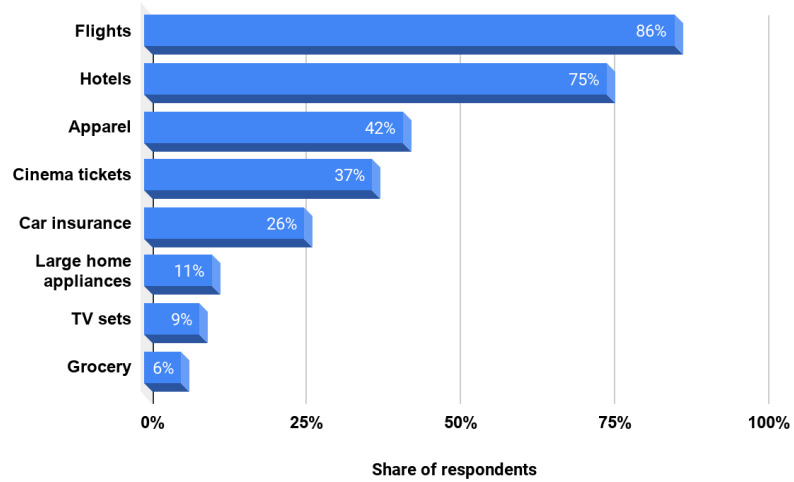
Appendix B: Table and Figure

Appendix 1.1: Top 10 Largest E-Commerce Market

Appendix 1.2: The E-commerce market value from year 2014 to 2020 in Malaysia
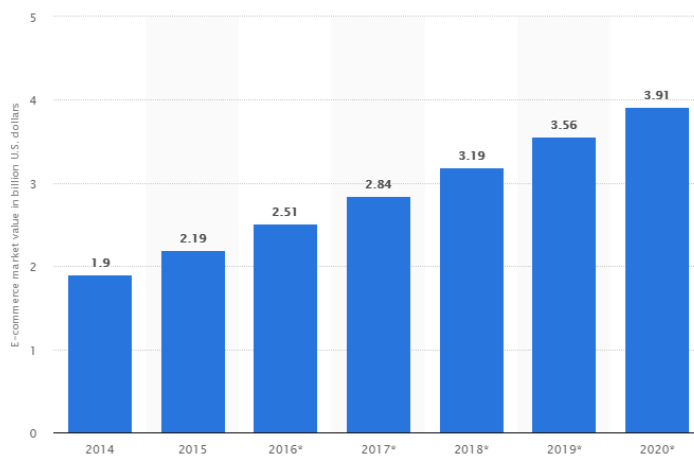
Appendix 1.3: Most recently online purchased product categories in Malaysia in 2014

Appendix 2.1: Independent Variable Convenience
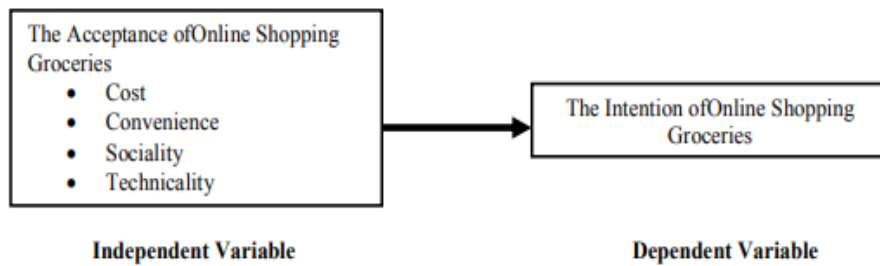
Appendix 2.2: Technology Acceptance Model (TAM)

Figure 1: TAM

Appendix 2.3: Independent Variable Perceived Ease of Use
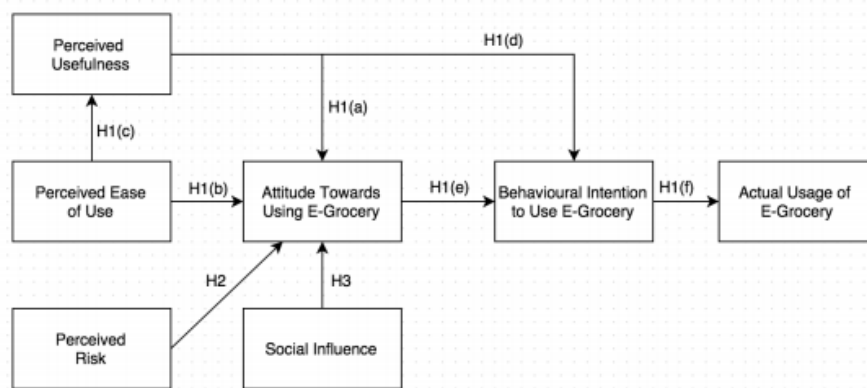
Source: Developed for the research study.

Appendix 2.4: Independent Variable Subjective Norms
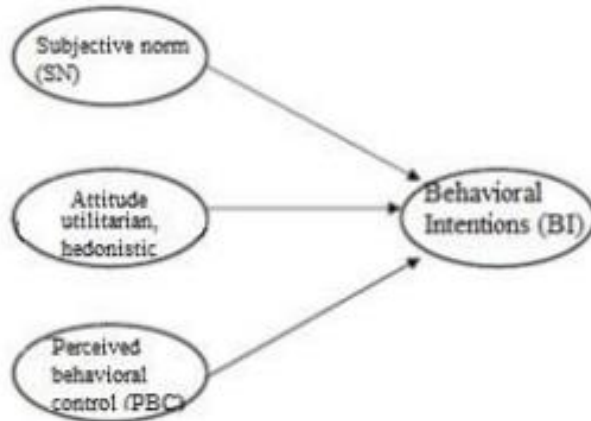
Appendix 2.5: Independent Variable Trust

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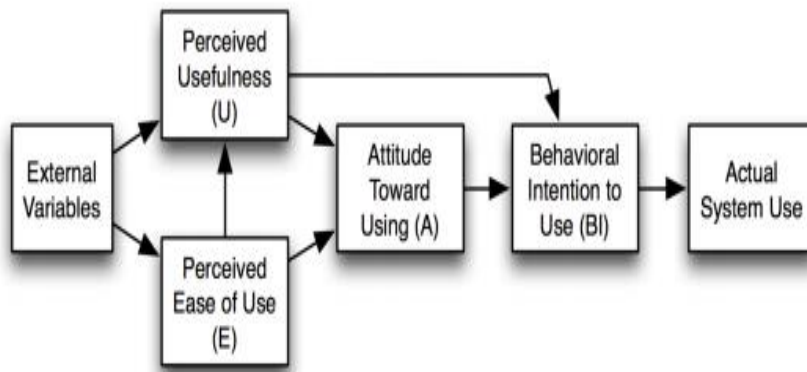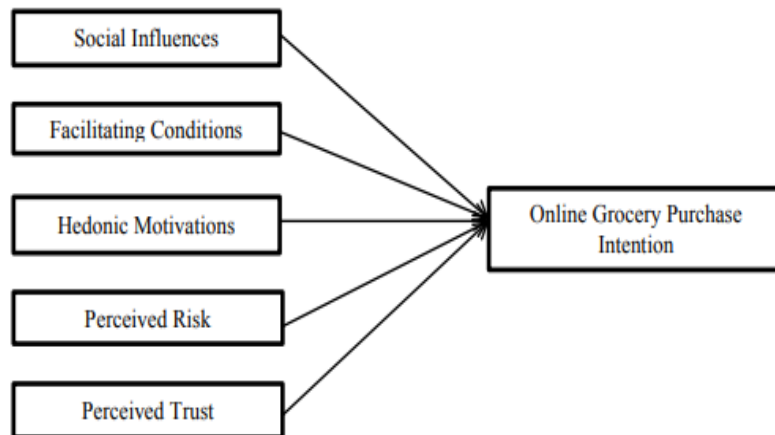Appendix 2.6: A Model of Factors Influencing the Adoption of Online Groceries Shopping among Generation X in Klang Valley
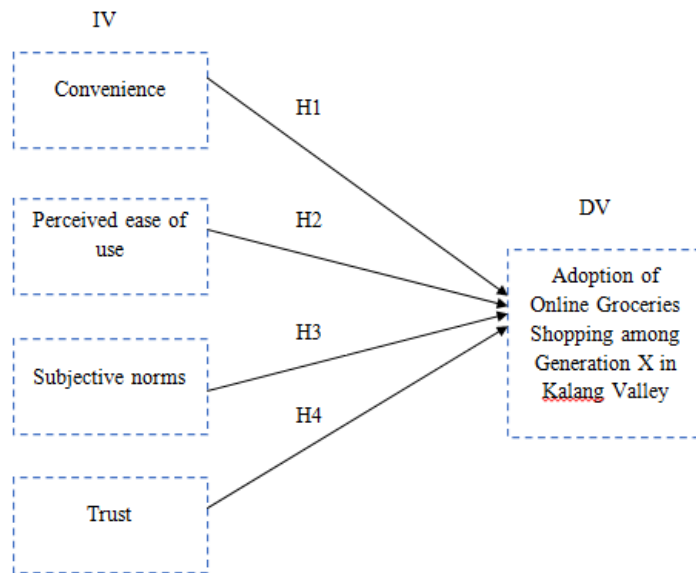
Appendix 3.1: Parts of IV and DV

Parts	Variables	Independent and dependent variables
A	Dependent Variable	Adoption of online groceries shopping
B	Independent Variable	Convenience
C	Independent Variable	Perceived ease of use
D	Independent Variable	Subjective norms
E	Independent Variable	Trust

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Appendix 3.2: Summary of Measures

Variable	Number of Items	Measurement Scale
Adoption of online groceries shopping	5	5-Point Likert Scale (1=Strongly Disagree to 5=Strongly Agree)
Convenience	5	5-Point Likert Scale (1=Strongly Disagree to 5=Strongly Agree)
Perceived ease of use	5	5-Point Likert Scale (1=Strongly Disagree to 5=Strongly Agree)
Subjective norms	5	5-Point Likert Scale (1=Strongly Disagree to 5=Strongly Agree)
Trust	5	5-Point Likert Scale (1=Strongly Disagree to 5=Strongly Agree)

Appendix 3.3: Pilot Testing

Variables	Cronbach's Alpha	No. of items
Adoption of online groceries shopping	0.826	9
Convenience	0.886	9
Perceived Ease of Use	0.921	8
Subjective Norm	0.91	9
Trust	0.839	9

Appendix 3.1: Ordinal Scale Example

2. Age

☐ 35 - 39 years

☐ 40 - 44 years

☐ 45 - 49 years

☐ 50 - 55 years

.

Appendix 3.2: Nominal Scale Example

1. Gender

☐   Male

☐   Female

Appendix 3.4: Measurement Used for Each Variable

	Variable	Measurement
Demographic Profile	Gender	Nominal
	Age	Ordinal
	Ethnicity	Nominal
	Highest Education Level	Ordinal
	Monthly income	Ordinal
General Questions	Do you use Internet?	Nominal
	Do you know about online groceries shopping?	Nominal

.

	Do you know that Malaysia store provides online groceries shopping to consumers?	Nominal
	Which E-grocery website did you know in Malaysia? (Can choose more than one answers)	Nominal
	What are the important factors of using online groceries shopping?	Nominal
Dependent variable	Adoption of online groceries shopping	Interval
Independent variable	Convenience	Interval
	Perceived ease of use	Interval
	Subjective norms	Interval
	Trust	Interval

Appendix 3.5: Origin of Construct

Constructs	Sources
Adoption of online groceries shopping	Rizwan, M., Umair, S. M., Bilal, H. M., Akhtar, M., & Bhatti, M. S. (2014). Determinants of customer intentions for online shopping: A Study from Pakistan. Journal of Sociological Research, 5(1). doi:10.5296/jsr.v5i1.6565
Convenience	Sulastri, A. S., Nawi, N. M., Abdullah, A. M., & Latif, I. A. (2017). Factors Influencing Consumer's Intention towards Online Grocery Shopping. IOSR Journal of Humanities and Social Science, 22(06), 74-79. doi:10.9790/0837-2206107479 Modirghomi, A.,& Sarshar., A. (2005). The Effect Online e-Grocery on Consumers Value in The Iranian Market (Doctoral dissertation, Lulea University of Technology). Retrieved from http://www.diva-portal.se/smash/get/diva2:1021668/FULLTEXT01.pdf
Perceived ease of use	Cheema, U., Rizwan, M., Jalal, R., Durrani, F., & Sohail, N. (2009). THE TREND OF ONLINE SHOPPING IN 21ST CENTURY: IMPACT OF ENJOYMENT IN TAM MODEL. Retrieved from http://www.aessweb.com/pdf-files/3%20(2)%20131-141.pdf

	Yee, P. J. (2016, April). Consumers' Acceptance Towards E-Grocery. Retrieved from http://eprints.utar.edu.my/2083/1/Final_Submission.pdf Sulastri, A. S., Nawi, N. M., Abdullah, A. M., & Latif, I. A. (2017). Factors Influencing Consumer's Intention towards Online Grocery Shopping. IOSR Journal of Humanities and Social Science, 22(06), 74-79. doi:10.9790/0837-2206107479
Subjective norms	Blomqvist, A., Lennartsson, F., & Nyman, L. (2015, May). Consumer Attitudes Towards Online Grocery Shopping. Retrieved from http://www.diva-portal.org/smash/get/diva2:812884/FULLTEXT01.pdf Ranadive, A. (2015, March). An Empirical Study on the Online Grocery Shopping Intentions of Consumers in Vadodara City. Retrieved from https://www.nuv.ac.in/PDF_PB/Amol_Ranadive_1.pdf
Trust	Peball, S. (2017, January). Buying Groceries Online: Consumer Perceptions And Generational Cohorts. Retrieved from https://run.unl.pt/bitstream/10362/23176/1/SarahPeball_2017.pdf

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Appendix 3.6: Range of Cronbach's Alpha value

Cronbach Coefficient alpha (α)	Indication
α value < 0.60	Poor reliability
α value between 0.61 and 0.70	Fair reliability
α value between 0.71 and 0.80	Good reliability
α value between 0.81 and 0.95	Excellent reliability

Appendix 3.7: Value for Pearson Correlation Analysis

Correlation	Positive	Negative
None	+0.0 to +0.09	-0.09 to -0.0
Weak	+0.10 to +0.30	.-0.30 to -0.10
Moderate	+0.30 to +0.50	-0.50 to -0.30
Strong	+0.50 to +0.90	-0.90 to -0.50
Perfect	+1	-1

Appendix 4.1: Statistic of Respondents' Gender

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Male	79	39.5	39.5	39.5
Female	121	60.5	60.5	100
Total	200	100	100	

Appendix 4.2: Percentages of Respondents' Gender
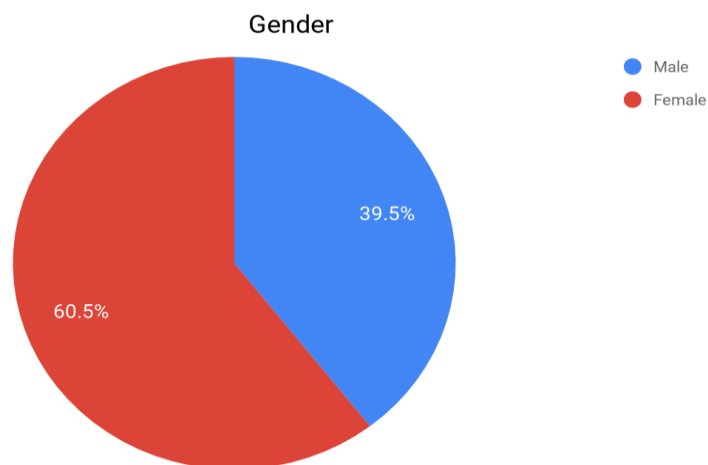
Appendix 4.3: Statistics of Respondents' Age

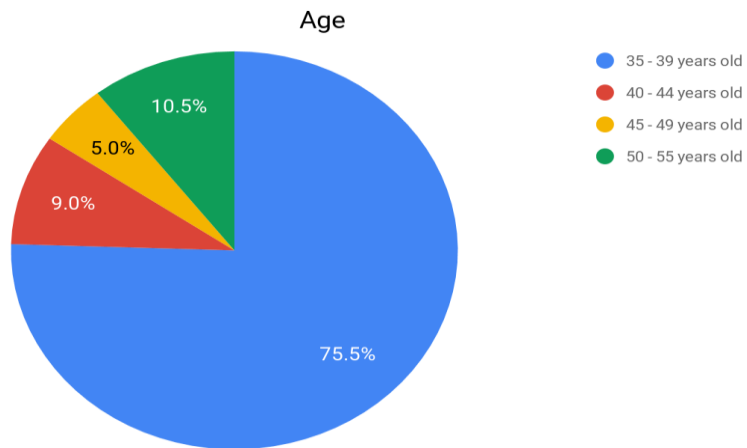|	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
35 - 39 years old	151	75.5	75.5	75.5
40 - 44 years old	18	9	9	84.5
45 - 49 years old	10	5	5	89.5
50 - 55 years old	21	10.5	10.5	100
Total	200	100	100	

.

Appendix 4.4: Percentage of Respondents' Age

Appendix 4.5: Statistic of Respondents' Ethnic Group

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Malay	5	2.5	2.5	2.5
Chinese	187	93.5	93.5	96
India	8	4	4	100
Total	200	100	100	

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Appendix 4.6: Percentage of Respondents' Ethnic Group

Ethnicity

India 4.0%

Malay 2.5%

93.5%

Chinese 93.5%
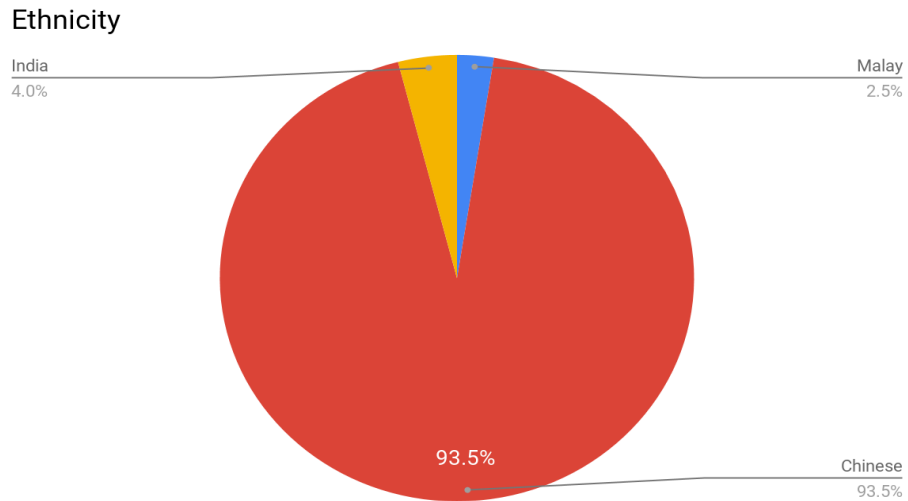
Appendix 4.7: Statistic of Respondents' High Education Level

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
SPM	24	12	12	12
A-Level	2	1	1	13
Foundation	10	5	5	18
Diploma	20	10	10	28

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Undergraduate	105	52.5	52.5	80.5
Postgraduate	29	14.5	14.5	95
Master	8	4	4	99
Others	2	1	1	100
Total	200	100	100	

Appendix 4.8: Percentage of Respondents' Highest Education Level

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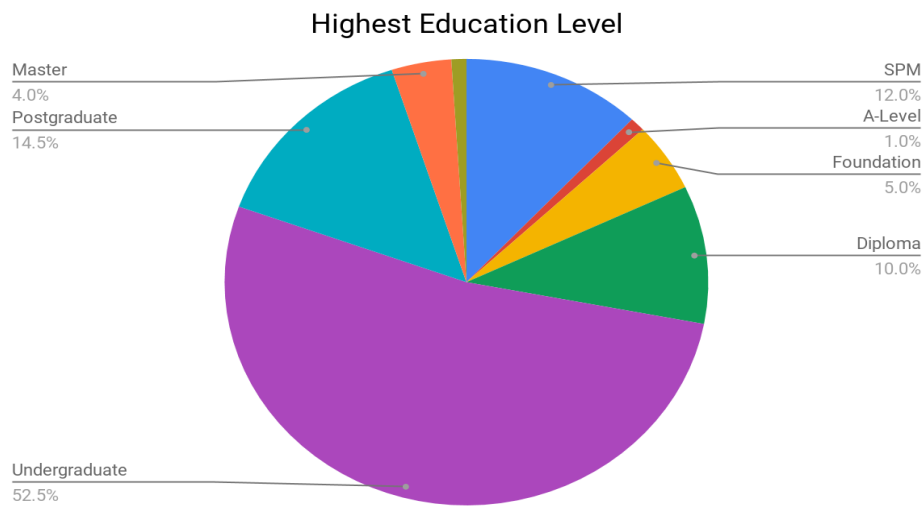
Appendix 4.9: Statistic of Respondents' Monthly Income

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Less than RM3,500.	69	34.5	34.5	34.5
RM3,501 - RM 4,000.	57	28.5	28.5	63
RM 4,001 - RM 4,500.	28	14	14	77
Above RM 4,501.	46	23	23	100
Total	200	100	100	

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Appendix 4.10: Percentage of Respondents' Monthly Income

Monthly Income

- Less than RM3,500.
- RM3,501 - RM 4,000.
- RM 4,001 - RM 4,500.
- Above RM 4,501.

34.5%
28.5%
14.0%
23.0%
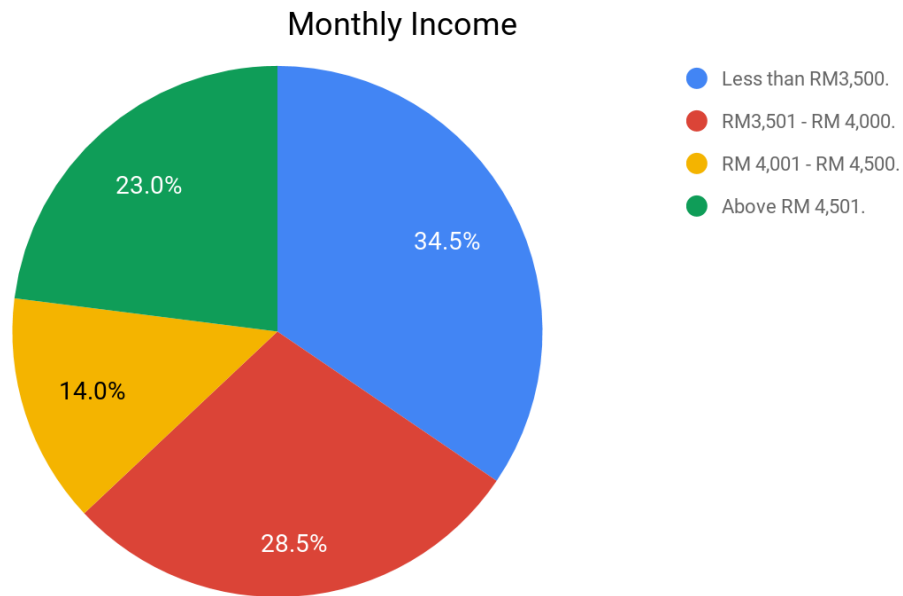
Appendix 4.11: Statistics of Do You Use Internet

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Yes	197	98.5	98.5	98.5
No	3	1.5	1.5	100
Total	200	100	100	

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Appendix 4.12: Percentage of Do You Use Internet

Do You Use Internet

No 1.5%

Yes 98.5%
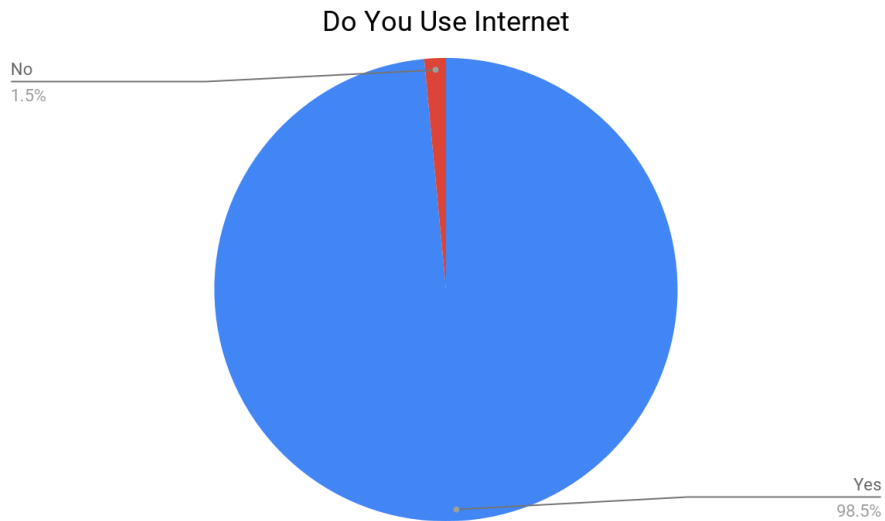
Appendix 4.13: Statistics of Do You Know About Online Groceries Shopping

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	173	86.5	86.5	86.5
No	27	13.5	13.5	100
Total	200	100	100	

Appendix 4.14: Percentage of Do You Know About Online Groceries Shopping

Do You Know About The Online Grocery Shopping?
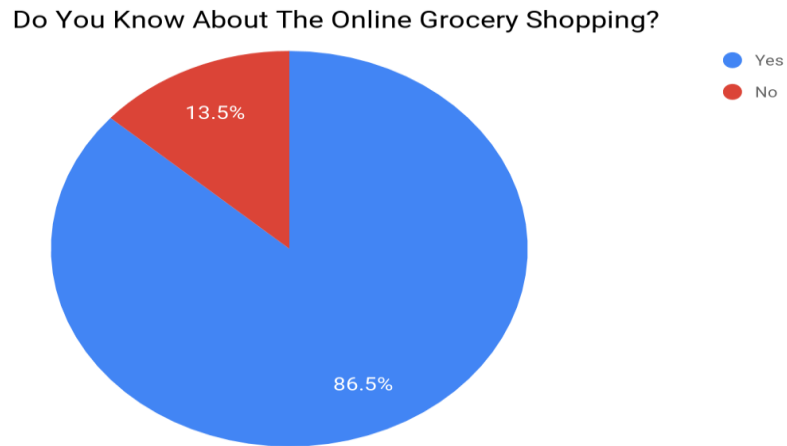
Appendix 4.15: Statistics of Do You Know That Malaysia Store Provides Online
Groceries Shopping To Consumers

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	151	75.5	75.5	75.5
No	33	16.5	16.5	92
No respond	16	8	8	100
Total	200	100	100	

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Appendix 4.16: Percentage of Do You Know That Malaysia Store Provides Online
Groceries Shopping To Consumers

Do You Know That Malaysia Store Provides Online Grocery Shopping
To Consumers
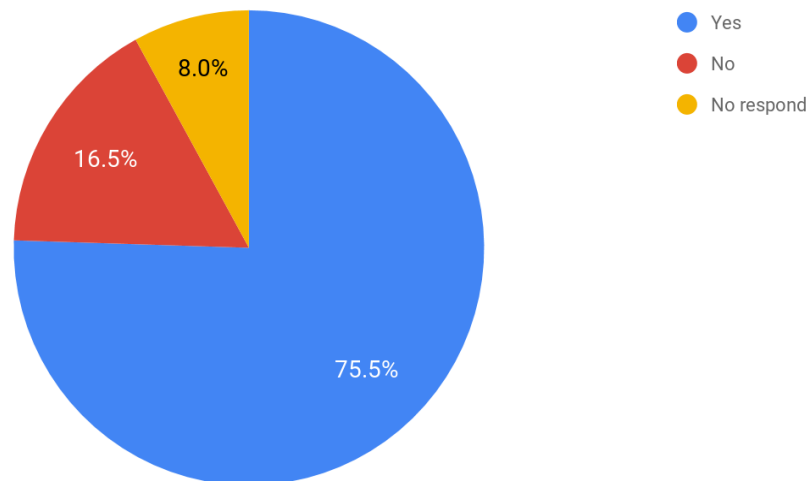
Appendix 4.17: Ranking of Which Online Groceries Shopping Website Did You
Know in Malaysia

Online groceries shopping website	Frequency	Ranking
Tesco.	140	1
Jaya Grocer.	43	2
Soukai.	3	7

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Supplycart.	4	6
Redtick.	7	5
HappyFresh.	33	3
GrocerExpress	12	4
Others	8	-
No response	46	-

Appendix 4.18: Statistics of Ranking of Which Online Groceries Shopping Website Did You Know in Malaysia

Which Online Grocery Shopping Website Did You Know in Malaysia To Consumers
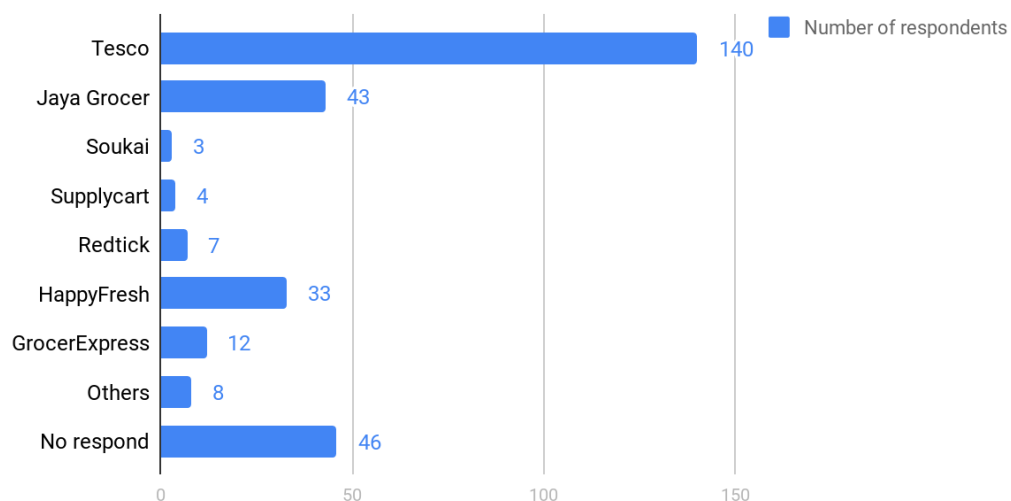
Appendix 4.19: Percentage of what are the important factors of using online groceries shopping

	Rank	Frequency	Cumulative Frequency
Convenience	1 - Least important	5	5
	2 - Slightly important	20	25
	3- Fairly important	74	99
	4 - Most important	101	200
Perceived Ease of Use.	1 - Least important	8	8
	2 - Slightly important	36	44
	3- Fairly important	105	149
	4 - Most important	51	200
Subjective Norms.	1 - Least important	18	18
	2 - Slightly important	53	71
	3- Fairly important	102	173
	4 - Most important	27	200

.

Trust	1 - Least important	9	9
	2 - Slightly important	40	49
	3- Fairly important	62	111
	4 - Most important	89	200

Appendix 4.20 Statistic of what are the important factors of using online groceries shopping

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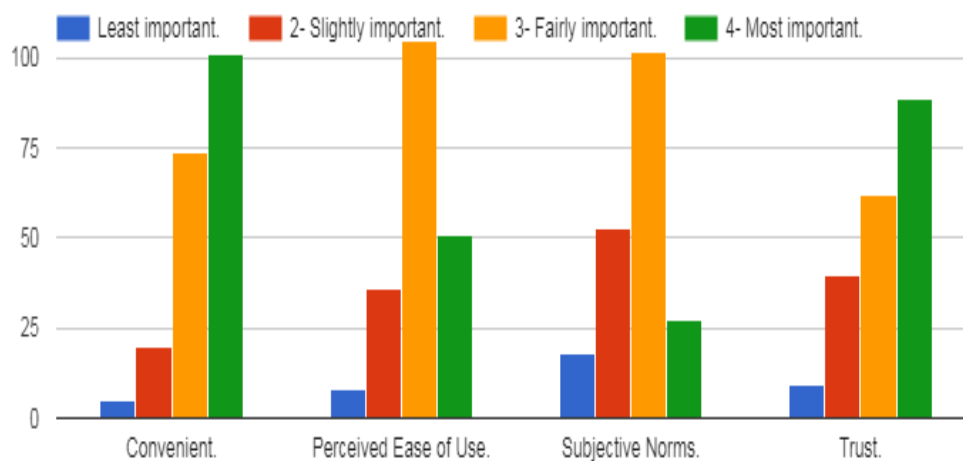
Appendix 4.21: Measurement of Constructs

Variables	Mean	Standard Deviation
Adoption of online groceries shopping	16.6750	3.50869
Convenience	19.5400	3.41272
Perceived ease of use	19.2450	3.37519
Subjective norms	17.2000	3.10778
Trust	18.2350	3.13831

Appendix 4.22: Reliability Analysis Test of Dependent and Independent Variables

Variables	Cronbach's Alpha	No. of items
Adoption of online groceries shopping	0.710	5
Convenience	0.818	5
Perceived ease of use	0.861	5
Subjective norms	0.707	5
Trust	0.726	5

Appendix 4.23: Correlation Matrix for Five Constructs

	Convenience	Perceived ease of use	Subjective norms	Trust	Adoption of online groceries shopping
Convenience	1				
Perceived ease of use	0.672**	1			
Subjective norms	0.430**	0.344**	1		
Trust	0.330**	0.267**	0.343**	1	
Adoption of online groceries shopping	0.468**	0.370**	0.500**	0.383**	1

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

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

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Appendix 4.24: Multiple Regression Analysis Model Summary

Model	R	R Square (R^2)	Adjusted R Square	Std. Error of the Estimate
1	.599[a]	.359	.345	2.83869

Appendix 4.25: Table of ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	878.535	4	219.634	27.256	0.000[b]
Residual	1571.340	195	8.058		
Total	2449.875	199			

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Appendix 4.26: Output of Multiple Regression Analysis Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.996	1.579		.631	.529
	Convenience	.243	.084	.236	2.895	.044
	Perceived ease of use	.055	.081	.053	.683	.495
	Subjective norms	.359	.074	.318	4.850	.000
	Trust	.203	.070	.181	2.897	.040

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Appendix 5.1 Summary of the Results for Hypotheses Testing

Hypotheses	Unstandardized Coefficient Beta	t-value	Significant Level	Result
Hypothesis 1: There is a significant relationship between convenience and adoption of online grocery shopping among generation X .	0.243	2.895	0.044	Supported
Hypothesis 2: There is a significant relationship between perceived ease of use and adoption of online grocery shopping among generation X.	0.055	0.683	0.495	Not Supported
Hypothesis 3: There is a significant relationship between subjective norms and adoption of online grocery shopping among generation X.	0.359	4.850	0.000	Supported

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Hypothesis 4: There is a significant relationship between trust and adoption of online grocery shopping among generation X.	0.203	2.897	0.040	Supported