FACTORS AFFECTING WILLINGNESS TO PAY FOR GREEN PRODUCTS AMONG UNDERGRADUATE STUDENTS IN UTAR

BY

LAI ZHENG HAO

ONG JIA YI

TAN SUK LI

TIO YU XUEN

A final year project submitted in partial fulfillment of the requirement for the degree of

BACHELOR OF ECONOMICS (HONS) FINANCIAL ECONOMICS

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF BUSINESS AND FINANCE

DEPARTMENT OF ECONOMICS

AUGUST 2020

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.
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Name of Student:	Student ID:	Signature:
1) Lai Zheng Hao	1601314	_____
2) Ong Jia Yi	1700105	_____
3) Tan Suk Li	1706269	_____
4) Tio Yu Xuen	1600268	_____

Date: 22nd September 2020

ACKNOWLEDGEMENT

First of all, we would like to show our gratitude to Universiti Tunku Abdul Rahman (UTAR) for providing us with a chance to conduct this final year project (FYP). By conducting this study, we have improved ourselves from several aspects such as interpersonal skills, analytical skills and self-management skills.

Secondly, we would also like to thank our FYP supervisor, Dr. Teoh Sok Yee for her persistent support. We appreciate her willingness to share her valuable experiences, ideas and information with us. Besides, when we face problems in conducting this study, she always gives us constructive advice and invaluable motivation so that we can overcome the problems. Without her guidance, we may not be able to complete this study smoothly.

Thirdly, we would like to express our appreciation to our FYP examiner, Dr. Foo Chuan Chew. He has assisted us in identifying errors in our questionnaire and report. Besides, he has also provided us with some useful and practical recommendations for the improvement of this study.

Fourthly, we would like to give thanks to all the respondents for taking their valuable time and efforts to fill in the questionnaires. Their participation in the survey has allowed us to receive 371 responses within two weeks. Without their help, we are not able to gather such a large number of responses within two weeks.

Lastly, we would like to express our gratitude to our family members and friends. They are always by our side to support us when we are conducting this study. Besides, they also provide us with the motivation to complete the study.

DEDICATION

This study is dedicated to every person who has made an effort to make this study a success. The efforts, regardless of being direct or indirect, are priceless.

First of all, we would like to dedicate this study to UTAR. The university has provided us with resources such as E-Databases and facilities such as computer laboratories. Access to these resources and facilities allow us to conduct the study smoothly.

Secondly, we would like to dedicate this study to our FYP supervisor, Dr. Teoh Sok Yee. She has contributed her invaluable time and effort in leading us to carry out the study. Her guidance and advice have helped us to overcome the difficulties faced during every stage of this study.

Thirdly, we would also like to dedicate this study to our FYP examiner, Dr. Foo Chuan Chew. He has provided us with many useful recommendations on how to improve the study. Hence, this enables us to produce a more comprehensive and reader-friendly report.

In conclusion, without the support from these parties, this study would not be carried out successfully.

TABLE OF CONTENTS

LIST OF TABLES

Page

LIST OF FIGURES

Page

LIST OF ABBREVIATIONS

CEGT	Centre for Environment and Green Technology
ESD	Education for Sustainable Development
FAS	Faculty of Arts and Social Science
FBF	Faculty Business and Finance
FEGT	Faculty of Engineering and Green Technology
FICT	Faculty of Information and Communication Technology
FSc	Faculty of Science
GTFS	Green Technology Financing Scheme
ICS	Institute of Chinese Studies
KeTTHA	Ministry of Energy, Green Technology and Water
MESTECC	Ministry of Energy, Science, Technology, Environment and Climate Change
SCP	sustainable consumption and production
SDGs	Sustainable Development Goals
SIRIM	Standard and Industrial Research Institute of Malaysia
SMEs	small and medium enterprises
SPSS	Statistical Package for the Social Sciences
UTAR	Universiti Tunku Abdul Rahman
VIF	Variance Inflation Factor

LIST OF APPENDICES

Page

PREFACE

This study is very important for the completion of our undergraduate course which is Bachelor of Economics (Hons) Financial Economics offered by Universiti Tunku Abdul Rahman. The topic of this study is "Factors Affecting Willingness to Pay for Green Products among Undergraduate Students in UTAR". Hence, this study is carried out to find out what factors can significantly influence the willingness to pay for green products among undergraduate students in the private university.

Due to the economic growth around the world, many consumers practice unsustainable consumption in their daily lives. As a result, environmental problems become more and more serious. Therefore, every party including the government, educational institutions and religious organizations needs to play their role to reduce the environmental problems. This can be done by motivating consumers to consume green products.

Therefore, this study examines the willingness to pay for green products because it can promote the consumption of green products. This study studies the influences of five factors, which are attitude towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge, on the willingness to pay for green products. This study can offer important insights to the government, educational institutions and religious organizations into how they can improve the undergraduate students' willingness to pay for green products.

ABSTRACT

Even though green products play an important role in reducing the environmental problems, the consumers' low willingness to pay for green products has caused the global demand for green products to be lower than expected. Therefore, many studies concerning the willingness to pay for green products have been conducted among undergraduate students around the world especially in developed countries. However, the role of undergraduate students, studying in private universities in developing countries like Malaysia, has often been overlooked although they are the main future consumers for the green products in these countries. Hence, on the basis of the Extended Theory of Planned Behaviour, this study seeks to determine the influences of attitude towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge on the willingness to pay for green products among undergraduate students in UTAR. In order to collect the data in this study, questionnaires were distributed to 371 UTAR Kampar undergraduate students, which were selected by employing the quota sampling technique. Then, Multiple Linear Regression Analysis was conducted by using the Statistical Package for the Social Sciences (SPSS) version 26.0. The results of the analysis indicate that the attitude towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge have significant influences on the willingness to pay for green products. Therefore, it is recommended that universities, government agencies and religious organizations should focus on these key factors when they attempt to improve the willingness to pay for green products.

Keywords: Willingness to Pay for Green Products, Attitude towards Green Products, Subjective Norm, Perceived Behavioural Control, Environmental Concern, Environmental Knowledge.

CHAPTER 1: INTRODUCTION

1.0 Introduction

In chapter one, the research background is firstly discussed. Then, the problem statement is used to explain the issues related to this study. After that, research objectives, questions and hypotheses are stated respectively. Next, the importance of conducting this study is explained. Subsequently, the summary of the content in each chapter is provided in the chapter layout. Lastly, a conclusion summarises the main points in chapter one.

1.1 Research Background

Conventional or non-green products have created some serious environmental and health problems around the world. For example, the rapid increase in the number of conventional vehicles due to economic growth has caused serious air pollution in Malaysia (Afroz, Masud, Akhtar, Islam & Duasa, 2015). Besides, the consumption of food produced from conventional farming not only causes decreasing soil fertility and water quality but also causes health problems (Yazdanpanah & Forouzani, 2015). For example, the consumption of food with pesticide residues in Iran has led about 23 thousands of consumers to get stomach cancer (Yazdanpanah & Forouzani, 2015). As a result, more and more people favour green products (Zhang, Zhao, Zhao & Tang, 2020).

Green products are products that are considered by consumers to be environmentally friendly because of their production process, raw materials, packaging, marketing communication mix and so forth (Johnstone & Tan, 2015). Other than "green products", these products can also be called "environmentally friendly products", "eco-friendly products", "sustainable products", and "ecological products" (Maichum, Parichatnon & Peng, 2017). Some common examples of green products are organic foods and alternative energy vehicles (Chen & Deng, 2016). These products can protect the environment.

Even though green products provide environmental benefits, they have a higher price compared to conventional products due to the higher cost of production (Pratiwi & Pratomo, 2017). The low willingness to pay for the higher price of green products was found to be the main obstacle that deters the consumption of these products (Nath, Agrawal, Gautam & Sharma, 2014). Therefore, it is clear that the willingness to pay must be improved to increase the consumption of green products (Wei, Ang & Jancenelle, 2018). Willingness to pay for green products is used to estimate the degree of an individual's willingness to pay more money for green products compared to conventional products (Khoiriyah and Toro, 2018). It is explained that willingness to pay for green products is a type of green buying intention (Mamun, Fazal, Ahmad, Yaacob & Mohamad, 2018). Besides, Leszczyńska (2014) further explained that it shows how much value a person judges the products have. According to Gregory-Smith, Manika and Demirel (2017), willingness to pay for green products is a more appropriate concept than self-reported behaviours and generic intentions in exploring environmental-friendly intentions.

Besides consumers, the issues of environmental problems have also gained considerable attention from the policymakers. To reduce environmental problems, sustainable consumption and production (SCP) have gained considerable attention since the United Nations Stockholm Conference on the Human Environment conducted in 1972 (Thongplew, Spaargaren & van Koppen, 2017). Policies were formulated to achieve this sustainable condition. The formulation of the policies

can be divided into two stages (Thongplew et al., 2017). The first stage paid particular attention to production (Thongplew et al., 2017). Companies were encouraged to employ technologies to improve their production and at the same time reduce the environmental impact (Thongplew et al., 2017). However, it was found that policies emphasizing on production were not effective in reducing environmental issues (Ferraz, Buhamra, Laroche & Veloso, 2017).

Therefore, the SCP policies concentrating on consumption were initiated in 1992 since the Earth Summit in Rio de Janeiro (Thongplew et al., 2017). This is when the role of green consumers becomes important in the formulation of environmental policies (Thongplew et al., 2017). This is because consumers are most significant in lessening the environmental degradation problem (Nath et al., 2014). According to do Paço, Shiel and Alves (2019), as consumers recognize the negative consequences of their unsustainable consumption on the environment, they alter their consumption behaviours. These behaviours are called green consumption behaviours. These behaviours comprise recycling, using reusable shopping bags and purchasing green products (Tan, Johnstone & Yang, 2016).

By developing various SCP policies, the Government of Malaysia has played a significant part in encouraging environmental conservation in Malaysia (Teng, Ow, Sandhu & Kassim, 2018). One of the earliest steps taken by the government was the approval of the law, called the Environment Quality Act, in 1974 (Mei, Ling & Piew, 2012). Other than that, the government has also attempted to progress towards the transportation sector which is more sustainable (Afroz et al., 2015). For example, it aims to raise the number of green vehicles by ten percent by 2020 (Afroz et al., 2015).

Besides, the purchase of green products and the use of green technology in Malaysia were motivated by the government through the formation of Ministry of Energy, Green Technology and Water (KeTTHA) in 2009 (Rahman, 2018). This ministry started to implement the National Green Technology Policy on 24 July

2009 to promote green technology which is used to produce green products (Ministry of Energy, Green Technology and Water, 2009).

After that, KeTTHA has also worked with Malaysian Green Technology Corporation (GreenTech Malaysia) to initiate MyHIJAU Programme (Rahman, 2018). In this programme, KeTTHA assists consumers in recognizing green products more easily by having labels of certification bodies recognized by MyHIJAU Mark on green products (Rahman, 2018). Under MyHIJAU Mark, there is one famous eco-label which is provided by Standard and Industrial Research Institute of Malaysia (SIRIM) where SIRIM Eco-labelling Scheme is also called National Eco-labelling Programme of Malaysia (Lasuin & Ching, 2014). Any firm that sells green products can register under these certification bodies in order to differentiate their products from conventional ones. The ministry also makes it easy for consumers to check the details of green products and services in the country by displaying relevant information on a website called MyHIJAU Directory (Rahman, 2018).

"MyHIJAU SME & Entrepreneur" is also under MyHIJAU Programme to help small and medium enterprises (SMEs) to utilize green technologies in producing their green products and services (Atan, 2015). The ministry provides training and other benefits to the selected SMEs so that these participants can adapt to green technologies in a more efficient and effective way than ever (Rahman, 2018).

There was also a financial initiative under this programme called the Green Technology Financing Scheme (GTFS) from 2010 to 2017 (Jamaludin, 2018). A sum of RM 3.5 billion was distributed by the government to this scheme (Jamaludin, 2018). The purpose of this scheme was to motivate Malaysian companies to do more investments in green technology by enabling them to obtain funds more easily and at a lower interest rate (Atan, 2015). 60 percent government guarantee and two percent rebate on interest rate were the incentives offered under

the scheme (Atan, 2015). At the end of 2017, a total of 319 projects have received funds from this scheme (Jamaludin, 2018).

A new version of GTFS, which was GTFS 2.0, was introduced in April 2018 with an allocation of RM 5.0 billion but it was stopped after the change of government during the 14th Malaysian general election (Malaysian Green Technology Corporation, n.d.). After that, on 6 March 2019, GTFS 2.0 was restored for a period from 2019 to 2020 but the budget allocated was reduced to RM 2.0 billion (Malaysian Green Technology Corporation, n.d.). This newly announced GTFS 2.0 is implemented by the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC) which replaces KeTTHA after 14th Malaysian general election (Jamaludin, 2018).

1.2 Problem Statement

Technology revolution and globalization have caused faster economic growth than ever before (Biswas, 2016). Even though economic growth brings good impact to our world, it also brings negative impact such as unsustainable consumption (Biswas, 2016). Unsustainable consumption means that the consumers do not care about natural resources and environment which are important for the livelihood of future generations when consuming goods and services (Qu, Li, Jia & Guo, 2015). Unsustainable consumption then causes severe environmental problems such as climate change, environmental degradation and ecological imbalance (Lai & Cheng, 2016; Malik & Singhal, 2017). Moreover, unsustainable consumption also causes an increase in solid waste (Prakash & Pathak, 2017). According to Joshi and Rahman (2015), 40 percent of environmental destruction is caused by consumer consumption. Besides, according to C40 Cities (2019), urban consumption around the world contributes to 10 percent of global greenhouse gases emissions, which are higher than the greenhouse gases emissions

contributed by the production side such as manufacturing and construction by 60 percent. These greenhouse gases then cause global warming and consequently climate change (Ahmed, Khan & Augustine, 2018; Kweku et al., 2018).

Despite being the main factor causing environmental problems, consumption also plays a key role in protecting the environment (Ferraz et al., 2017). In order to reduce the damage caused by unsustainable consumption to the environment, consumers have mainly focused on green products (Mamun, Fazal, et al., 2018). The consumption of these products is considered as one of the effective methods in decreasing the seriousness of environmental problems (Lai & Cheng, 2016). According to Sheng, Xie, Gong and Pan (2019), people have started to show positive attitudes towards green products so they possess a higher probability to buy these products. Besides, to protect the environment, some consumers also penalize companies that cause harm to the environment by not buying their conventional products (Lu, Chang & Chang, 2015). As a result, companies will be motivated to include green concepts in their business to avoid losing customers (Lu et al., 2015). Prakash and Pathak (2017) claimed that as companies implement the green concept in their business, their profit and market share will improve.

Consequently, an increasing number of companies such as Nike, Honda, General Motors and IKEA have invested a large number of funds to develop and produce green products. For instance, more than USD2.5 billion is used every year by General Motors to innovate and introduce alternative energy vehicles (Wei et al., 2018). However, the demand for green products is lower than expectation (Lai & Cheng, 2016). This is consistent with Iyer, Dawari and Paswan (2016) who stated that the market performance of green products is not satisfactory. This evidence has shown a low willingness to pay for green products. This is supported by Mamun, Mohamad, Yaacob and Mohiuddin (2018) who explained that the market for green products has not reached mass-market status even though government and non-government organization have tried hard to promote green products. The global market share for this type of products is only about 4 percent despite rising

consumer spending on green products (Chekima, Wafa, Igau, Chekima & Sondoh, 2016; Gaspar, Julião & Tjahjono, 2017; Gleim, Smith, Andrews & Cronin, 2013).

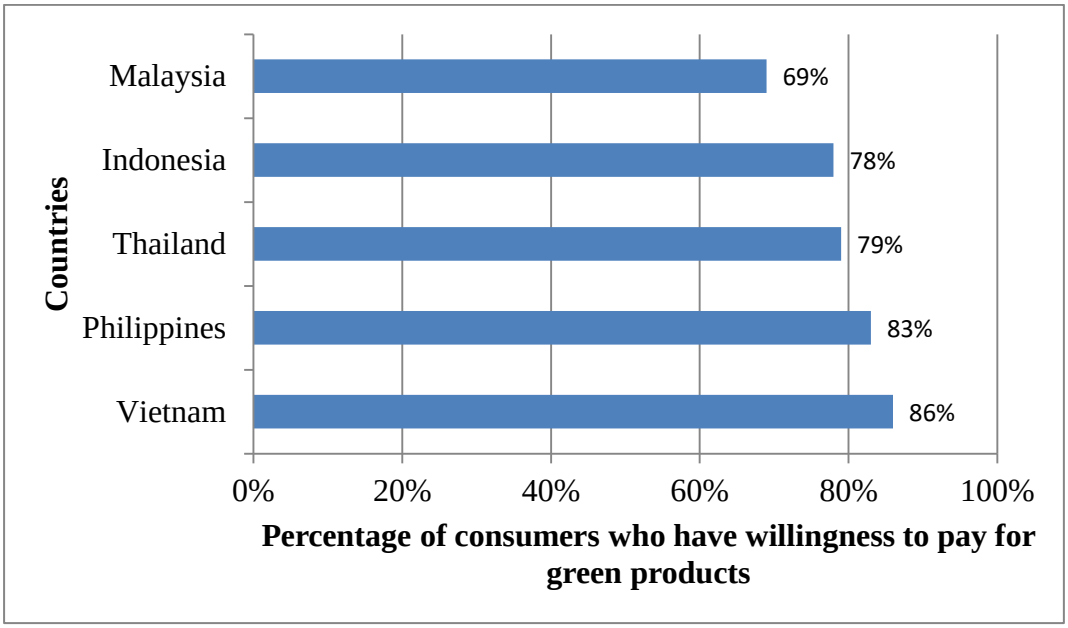
According to Gurău and Ranchhod (2005), the leading markets for green products are situated in developed countries and it is argued the consumers in developed countries are more willing to pay for the green product compared to the consumers in developing countries. The majority of people in developed nations consume green products because they know that they can keep their health and save the environment by buying these products (Handriana, 2016). For instance, in the United States, 56 percent of consumers have the willingness to pay for green products (Kucher, Heldak, Kucher & Raszkar, 2019). Besides, in Singapore, 55 percent of consumers are willing to pay for green products (Nielsen, 2015c).

Previous studies argued that people in developing countries are just experiencing the early stage of development towards the consumption of green products (Ali, Khan, Ahmed & Shahzad, 2011). In developing countries, fewer people purchase green products because the prime concern of people is not to care about health and environment, but to ensure that they can meet the personal and family consumption needs in order to survive (Handriana, 2016). However, recent studies have focused on green product consumption in developing countries because there are insufficient studies in developing countries (Mamun, Fazal, et al., 2018). Besides, the consumers in these countries are more vulnerable to environmental problems than developed countries due to the lack of financial resources and advanced technologies. In addition, most of the victims of natural disasters as a result of climate change are located in developing countries (Zorn, 2017). According to Zorn (2017), from 1991 to 2005, 90 percent of the people who died because of natural disasters and 98 percent of people who are affected by natural disasters come from developing countries (Zorn, 2017). Hence, there is an increasing concern among the consumers in these countries about the negative consequences of their behaviours on the environment (Maichum et al., 2017). This has encouraged them to choose green products (Maichum et al., 2017). As a result, developing countries, especially in Southeast Asia, have more consumers who are

willing to pay for green products compared to developed countries (Nielsen, 2015c).

Figure 1.1

Percentage of consumers who have willingness to pay for green products



Source: Nielsen (2015c)

Figure 1.1 shows the percentage of consumers who have the willingness to pay for green products in five Southeast Asia countries which are Malaysia, Indonesia, Thailand, Philippines and Vietnam. It is found that all these countries have high percentages of consumers who are willing to pay for green products. Vietnam (86 percent) has the highest percentage of consumers who are willing to pay for green products. The country with the second-highest percentage of consumers willing to pay for green products is the Philippines (83 percent). Furthermore, Thailand and Indonesia have 79 percent and 78 percent of consumers who are willing to pay for green products respectively. However, among these developing countries, Malaysia (69 percent) has the lowest percentage of consumers who are willing to pay for green products.

Hence, studying willingness to pay for green products in Malaysia is important as there are insufficient studies on the willingness to pay on green products in the country (Isa, Lim & Chin, 2017).

Malaysia is chosen in this study for several reasons. First, 90 percent of the Malaysians are concerned and well informed of the impact of environmental problems (Kong, Harun, Sulong & Lily, 2014). However, the consumption of green products in this country is not promising (Kong et al., 2014). This is because, in a study involving 616 Malaysian respondents, only 30 percent of the respondents have bought green products before (Lasuin & Ching, 2014). This evidence again shows the lack of consumers who have the willingness to pay for green products in Malaysia.

Secondly, the rankings of Malaysia in various studies related to environmental performance are not satisfactory. In an analysis to identify the Greenest Countries in the Asia Pacific, Malaysia performed moderately by getting the 8th place out of 13 countries (Chin, 2019). Furthermore, the ranking of Malaysia in Environmental Performance Index dropped from 51st place to 63rd in 2016 while it further dropped to 75th place in 2018 (“Malaysia’s Performance”, 2016; “Environmental Performance Index”, 2018). Therefore, in order to improve environmental performance, willingness to pay for green products among the Malaysian consumers should be increased to encourage consumption of green products.

Lastly, according to Zurairi (2018), Malaysia has been hit by 51 natural disaster incidents as a result of climate change from 1998 to 2018. In this period, more than 3 million people were affected, 281 people were killed and damages of RM8 billion were recorded (Zurairi, 2018). Among natural disasters, the flood was the most frequent one because it amounted to 38 times (Zurairi, 2018). Floods alone have caused more than 770,000 people to be affected, 148 people being dead and damages of RM5.82 billion recorded (Zurairi, 2018). According to Shabnam (2014), floods can harm economic growth because the number of people affected

in this type of natural disaster has a significant negative relationship with the GDP per capita growth rate. Tang (2019) stated that climate change in Malaysia is projected to be worse in the future. Therefore, to minimize the negative consequences of climate change on the well-being of people and the economy of Malaysia, the willingness to pay for green products should be promoted to produce fewer greenhouse gases emissions.

Hence, it is a must to educate Malaysian consumers about the advantages of sustainable consumption such as green consumption in protecting the environment and the disadvantages of unsustainable consumption such as using conventional products. Sustainable consumption can be promoted through education because education is important in equipping a person with proper skills and abilities to consume sustainably (Fischer, 2013). Fischer (2013) explained that, as a location where students live, study and work for a long period of their life, educational institutions can potentially promote sustainability through both formal and informal learning. According to Blessinger, Sengupta and Makhanya (2018), one type of educational organizations which are universities are vital in producing a more sustainable future. The important role of universities in promoting sustainable development and increasing the ability of people to deal with environmental issues was recognized as early as in 1992 in Chapter 36 Agenda 21, published by United Nations (United Nations, 1992). From then on, Education for Sustainable Development (ESD) gains much attention (Grosseck, Țîru & Bran, 2019). ESD is related to inserting the sustainable development issues such as climate change and sustainable management of natural resources into the learning and teaching processes so that students can possess knowledge, skills, attitudes and values that are essential in shaping a sustainable future (Grosseck et al., 2019). In 2015, the importance of education in promoting sustainable development is once again emphasized in the 2030 Agenda of Sustainable Development Goals (SDGs) of the United Nations (Grosseck et al., 2019). This agenda is formed by 17 goals and the fourth goal is directly related to education (Grosseck et al., 2019). According to Mead (2017), besides the fourth goal, universities can also assist the achieving all other SDGs including “Responsible Consumption and Production” and “Climate Action” through learning, teaching, research and so on.

Since universities play a vital role in promoting green products, various empirical studies related to intention to purchase green products have been conducted in both public and private universities around the world. For example, one of the studies conducted in public university was done in China by Bhutto, Zeng, Soomro and Khan (2019). Besides, Arli and Tjiptono (2017) carried out a similar study in private universities in Indonesia. In the case of Malaysia, Sharaf, Isa and Al-Qasa (2015) and Sharaf and Isa (2017) have conducted their studies on the green purchase intention in Universiti Utara Malaysia while Lasuin and Ching (2014) conducted a similar study in Universiti Malaysia Sabah. Both of these universities are public. In contrast, limited studies are done in Malaysian private universities. Therefore, more empirical studies should be done in private universities in Malaysia because the number and enrolment level of private higher learning institutions are higher than that of public universities. According to "Malaysia's private universities" (2018), the number of private universities outnumbers public universities because there are 53 private universities while there are only 20 public universities in Malaysia in 2017. Besides, more than 600,000 Malaysian students study at private higher learning institutions while 500,000 Malaysian students study at public universities (Tapsir, 2019). As university students are the main future consumers and there are more of them in private universities, conducting this study in private university can bring a more significant impact on the green purchase intention in Malaysia.

Universiti Tunku Abdul Rahman (UTAR) is a Malaysian private university. In the World University Rankings 2020, UTAR has obtained second place in Malaysia, which is only one place behind Universiti Malaya ("Wee praises UTAR", 2019). Besides, in UI Green Metric World University Ranking 2019, UTAR has improved from the 146th place to 102nd place worldwide while maintaining the 7th place in Malaysia (UI Green Metric, 2018; UI Green Metric, 2019). Hence, it is an organization that has put much effort in the promotion of sustainable development within the university. UTAR Kampar Campus is selected because of several reasons. First of all, International Symposium on Green and Sustainable Technology was carried out in UTAR Kampar campus in 2014, 2017 and 2019 (Centre for Environment and Green Technology [CEGT], n.d.). It is a conference

that offers a chance to scholars, scientists and practitioners around the world to share their most recent research outcome, ideas and progress related to green and sustainable technology (CEGT, n.d.). Secondly, UTAR offers two undergraduate courses related to the environment, which are Bachelor of Engineering (Honours) Environmental Engineering and Bachelor of Science (Honours) Environmental, Occupational Safety and Health (Faculty of Engineering and Green Technology [FEGT], n.d.). Both of these courses are conducted in UTAR Kampar Campus (FEGT, n.d.). Thirdly, UTAR Green Campus Committee has worked with Kampar District Council to promote sustainability around the campus (Ang & Ang, 2018). For example, UTAR Green Campus Committee has involved in the green neighbourhood campaign introduced by Kampar District Council in 2017 (Ang & Ang, 2018). Their efforts include promoting water and energy conservation, waste management and sustainable food (Ang & Ang, 2018). For example, every toilet in Kampar campus is equipped with water-saving taps, energy-saving light bulbs and motion sensors to save energy (Ang & Ang, 2018).

UTAR undergraduate students are chosen to be the respondents because of several reasons. First of all, even though undergraduate students currently have limited purchasing power, they are going to be the main consumers in the market for green products in the future (Choshaly, 2017). Secondly, since they are educated, they are expected to have some knowledge related to environmental sustainability (Hsu, Chang & Yansritakul, 2017). Thirdly, university students are independent when making buying decisions (Butt, 2017). This is because they generally do not discuss with their parents before deciding to buy anything (Lai & Cheng, 2016). According to Butt (2017), consumers who are 18 years old and above can make buying decisions independently. Fourthly, it is claimed that studying university students can generate responses that are close to responses from general consumers (Yazdanpanah & Forouzani, 2015). Fifthly, many of them have prior experience of using green products (Butt, 2017). In the United States, university students have the same or more experience related to remanufactured products, which is also one type of green products, compared to other consumer groups (Wang & Hazen, 2016). Besides, in Iran, university students have a higher chance

of experiencing organic food than the general population (Yazdanpanah & Forouzani, 2015).

Undergraduate students are young consumers who are 18 years old and above. Young consumers are important consumers for green product markets because they have a high willingness to pay for green products. Specifically, 73 percent of Millennials and 72 percent of Generation Z are willing to pay for green products (Nielsen, 2015a, 2015b). Apart from that, young people in Malaysia represent an attractive market segment because there are 29 percent of Millennials and 26 percent of Generation Z in the country (Lin, 2018; Koya, Ahmad, Timbuong & Rahim, 2019). Besides, according to Tan and Lau (2009), higher disposable income is available to young people of developing countries compared to developed countries so they have more purchasing power than those in developed countries. This is because they enjoy more pocket money and salary from part-time jobs (Tan & Lau, 2009). It was explained that the spending habits of young consumers around the world are similar (Tan & Lau, 2009). Therefore, by studying young consumers in Malaysia, the results obtained from this study may be generalized to young people in different countries.

Hence, studying willingness to pay in Malaysia is important as there is a lack of research related to willingness to pay for green products among undergraduates in Malaysia.

Based on the previous studies, the willingness to pay for green products is affected by various factors. However, the influence of some variables, such as attitude towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge, are ambiguous.

Mamun, Mohamad, et al. (2018) explained that attitude towards green products means how positively or negatively people assess the performance of green

buying behaviour. It was discovered that attitude towards green products has a significant influence on the willingness to pay for green products (Khoiriyah & Toro, 2018). In contrast, Setyawan, Noermijati, Sunaryo and Aisjah (2018) indicated that attitude towards green products has no significant influence on the willingness to pay for green products.

According to Wang, Wang, Yang, Wang and Li (2018), subjective norm is the perception of the societal pressures from the important others to do or not to do a particular behaviour. Arli, Tan, Tjiptono and Yang (2018) detected that subjective norm has a significant influence on the willingness to pay for green products. However, Paul, Modi and Patel (2016) stated that subjective norm has no significant influence on the willingness to pay for green products.

Perceived behavioural control is defined as an individual's judgement of how difficult or easy it is to perform an intended behaviour (Bhutto et al., 2019). It was found that perceived behavioural control has a significant influence on the willingness to pay for green products (Bhutto et al., 2019; Yadav & Pathak, 2017; Mamun, Fazal, et al., 2018). However, an insignificant influence of perceived behavioural control on the willingness to pay for green products was found by Karatu and Mat (2015) and Onel (2017).

According to Ahmad and Thyagaraj (2015), environmental concern means the extent of individual's consciousness of environmental issues and their support of attempts to resolve these issues or their readiness to contribute personally to resolve these issues. It was found that environmental concern has a significant influence on the willingness to pay for green products (Prakash & Pathak, 2017). However, Chaudhary and Bisai (2018) discovered that environmental concern has an insignificant influence on the willingness to pay for green products.

Mostafa (2006) stated that environmental knowledge means the basic understanding of the truths, ideas and relationships about the natural surroundings and its vital ecosystems. Goh and Balaji (2016) found that environmental knowledge has a significant influence on the willingness to pay for green products while Jaiswal and Kant (2018) found that environmental knowledge has no significant influence on the willingness to pay for green products.

In short, these existing studies discovered inconsistent results for the relationship between the dependent variable, which is the willingness to pay for green products, and the independent variables, which are attitude towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge. Therefore, the relationship between the dependent variable and these independent variables cannot be clearly understood. Hence, this is the gap to be filled up by conducting this study.

As a result, this study aims at examining the influences of attitude towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge on the willingness to pay for green products among undergraduate students in UTAR.

1.3 Research Objectives

1.3.1 General Objectives

The general objective of this study is to examine the willingness to pay for green products among undergraduate students in UTAR and identify the factors that affect the willingness to pay for green products among them.

1.3.2 Specific Objectives

To fulfil our general objective, the subsequent specific objectives are constructed.

1) To examine whether there is a significant relationship between attitude towards green products and willingness to pay for green products among undergraduate students in UTAR.
2) To examine whether there is a significant relationship between subjective norm and willingness to pay for green products among undergraduate students in UTAR.
3) To examine whether there is a significant relationship between perceived behavioural control and willingness to pay for green products among undergraduate students in UTAR.
4) To examine whether there is a significant relationship between environmental concern and willingness to pay for green products among undergraduate students in UTAR.
5) To examine whether there is a significant relationship between environmental knowledge and willingness to pay for green products among undergraduate students in UTAR.

1.4 Research Questions

To provide a clear direction in our study, the subsequent research questions are constructed.

1) Is there a significant relationship between attitude towards green products and willingness to pay for green products among undergraduate students in UTAR?
2) Is there a significant relationship between subjective norm and willingness to pay for green products among undergraduate students in UTAR?
3) Is there a significant relationship between perceived behavioural control and willingness to pay for green products among undergraduate students in UTAR?
4) Is there a significant relationship between environmental concern and willingness to pay for green products among undergraduate students in UTAR?
5) Is there a significant relationship between environmental knowledge and willingness to pay for green product among undergraduate students in UTAR?

1.5 Hypotheses of the Study

H1: There is a significant relationship between attitude towards green products and willingness to pay for green products among undergraduate students in UTAR.
H2: There is a significant relationship between subjective norm and willingness to pay for green products among undergraduate students in UTAR.
H3: There is a significant relationship between perceived behavioural control and willingness to pay for green products among undergraduate students in UTAR.
H4: There is a significant relationship between environmental concern and willingness to pay for green products among undergraduate students in UTAR.
H5: There is a significant relationship between environmental knowledge and willingness to pay for green products among undergraduate students in UTAR.

1.6 Significance of Study

First, it is necessary to conduct this study because it can enrich the existing literature of green consumption, particularly the willingness to pay for green products, in terms of the theoretical framework. Instead of using the conventional theoretical frameworks such as Theory of Reasoned Action and Theory of Planned Behaviour, a relatively new framework called Extended Theory of Planned Behaviour suggested by Yadav and Pathak (2016) is used. In this framework, two extra variables, which are environmental concern and environmental knowledge, are incorporated to modify the Theory of Planned Behaviour. This is because these two variables are vital in the consumers' decision-making process (Yadav & Pathak, 2016). Hence, by using this improved framework, the willingness to pay for green products in Malaysia can be understood more comprehensively. Consequently, this may facilitate students and academics in conducting their future researches by being more innovative in selecting their theoretical framework.

Secondly, the findings of this study can be used by corporations selling green products in Malaysia to improve their sales. First of all, they can use the findings to target the consumers that have a high willingness to pay for green products. Other than that, they can use the findings of this study in designing marketing activities that improve the willingness to pay for green products too. As willingness to pay is the main factor preventing the consumption of green products (Wei et al., 2018), increasing willingness to pay may increase the sales of their products.

Thirdly, the findings can also be utilized by MESTECC in amending the existing policies and creating new policies to reduce the impact of environmental problems on Malaysia. In 2015, Malaysia promised that the national carbon dioxide emissions will be decreased by 45% from the degree of emissions in 2005 before

2030 (Khoo, 2019). Besides, according to Pilus (2018), Malaysia is dedicated to developing into a carbon-neutral nation before 2050. Green products can contribute to the achievement of these targets. Therefore, when formulating the relevant policies, the government agency can look at the findings of this study and other related studies so that it can understand what factors are more important in driving the willingness to pay for green products. As a result, it can allocate more resources to the significant factors so that the targets could be attained in an effective and efficient manner.

1.7 Chapter Layout

Chapter one details the research background and the problem statement which explains why the research area is chosen. Besides, the research objectives, questions and hypotheses are constructed. Also, the importance of conducting this study is also explained.

Chapter two contains a review of previous studies on the willingness to pay for green products. It includes the review of the variables and also the theoretical frameworks employed in the previous studies. Besides, the definitions of the variables are provided. Findings of other researchers regarding the research area have been presented logically in this chapter.

Chapter three is related to the research methodology. The chapter explains the research design, sampling size selection, sampling technique and research instrument. Besides, the steps in data processing and analysis are also explained.

Chapter four is used to present the research results. The presentation of research results is important for the attainment of the research objectives. In chapter four, the outcomes of descriptive analysis, preliminary data screening and inferential analysis are the major components.

Chapter five concludes the work and discusses the research results obtained from data analysis in detail. Then, some suggestions on how the policymakers can utilize the findings are provided. Lastly, the constraints of this study and the recommendations to overcome these constraints are discussed.

1.8 Conclusion

In conclusion, unsustainable consumption causes environmental problems such as climate change and environmental degradation. These problems can be reduced by the consumption of green products. However, the performance of green products in the market is not as high as expected. This may be due to the high prices of the green products which hinder the consumers from buying the products. Therefore, this study attempts to understand the factors affecting willingness to pay for green products among undergraduate students in UTAR. The factors that are going to be studied are attitude towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

Chapter two is organized in the following sequence. The first part is the review of literature on the dependent variable, which is the willingness to pay for green products. Secondly, its relationships with five independent variables, which are attitudes towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge, are explained. Thirdly, the theoretical frameworks are discussed. The fourth section is the conceptual framework. Lastly, hypotheses in this study are constructed.

2.1 Review of Literature

2.1.1 Willingness to Pay for Green Products

According to Khoiriyah and Toro (2018), willingness to pay for green products is the concept of measuring the readiness of the consumers to pay a price premium to acquire green products. Mamun, Fazal, et al. (2018) claimed that willingness to pay for green products can be interpreted as a type of green buying intention. According to Gregory-Smith et al. (2017), it is more appropriate to study willingness to pay for green products compared to self-reported behaviours and generic intentions in exploring environmental-friendly intentions. Willingness to

pay for green products is triggered when consumers are aware that the level of environmental degradation has negatively influenced their quality of life, and then they try to buy the products produced by manufacturers with the minimum impact on the environment (Chu, Lin & Chi, 2013).

Although there is a trend towards green products, there are several obstacles which hinder consumers from knowing how green products can make the environment better, such as the high cost to obtain green products and the deficiency of information about the green products (Chen, Tsai & Hsieh, 2017). There are some existing studies which found that a part of consumers are willing to pay extra for green products, while a part of them are not (Royne, Levy & Martinez, 2011). One study which covers both United States and Europe found that 70 percent of consumers are only willing to pay a premium of five percent for green products if the quality of these products is identical to conventional products (Kucher et al., 2019). In contrast, it was discovered that consumers in Spain are willing to pay an extra 22 to 37 percent more for food products which are environmentally friendly (Wei et al., 2018).

It was stated that if consumers can perceive the advantage that is over the extra pay to purchase the green product, they are willing to pay more for that particular green product (Royne et al., 2011). And basically, those consumers have more knowledge of green product's advantages and costs. For example, processed foods are usually cheaper than fresh organic vegetables and fruits, but consuming processed food is followed by the risk of colorectal diseases, cancers, diabetes and cardiovascular diseases (Royne et al., 2011). The same theory applies to both green and conventional products, conventional products are usually cheaper than green products, but at the same time, there is the risk of damaging the environment.

2.1.2 Attitude towards Green Products

In the social psychology literature, it is widely concluded that attitude leads to human behaviour. For instance, the Theory of Reasoned Action and Theory of Planned Behaviour asserts that attitude will influence a person's performance (Arli et al., 2018). Consumers' attitude towards green products is always pointed out to be important in the protection of the environment. It is defined as the behaviour based on a consumer's overall evaluation of green products (Lin, Nadlifatin, Amna, Persada & Razif, 2017).

There are different results for the past studies examining the influence of consumers' attitude towards green products on the green purchase intention. A lot of researchers have claimed a significant influence of consumer's attitude towards green products on the intention to purchase green products. Most of the significant results are asserted based on well-developed countries and developing countries, including United States (Choi & Johnson, 2019), Indonesia (Arli et al., 2018), India (Prakash & Pathak, 2017; Chaudhary & Bisai, 2018), Malaysia (Hossain & Lim, 2016), Taiwan (Hsu et al., 2017), Iran (Yazdanpanah & Forouzani, 2015), China (Wang et al., 2018) and Denmark (Barbarossa et al., 2015). When consumers have a good impression of using green products, they will absolutely support green products instead of using other conventional products. This is consistent with Angelovska, Sotiroska, and Angelovska (2012) who claimed that when consumers have pro-environmental attitudes and concerns about the environment, they will more likely purchase green products during their general purchasing behaviour. Besides, Mufidah et al. (2018) have proved that attitudes significantly stimulate green purchasing behaviour. The consumers with a favourable attitude towards green products believe that environmental damage will be reduced by using green products and mostly stated that green products can meet their standards (Chen, Chen & Tung, 2018).

However, some of the studies found an insignificant influence of the consumers' attitude towards green products on the green purchase intention. Some studies have shown insignificant results in developing countries which are Indonesia (Setyawan et al., 2018) and China (Xu, Hua, Wang & Xu, 2020; Xu, Wang & Yu, 2020). There are some possible explanations for the insignificant relationship. Firstly, green products are quite new to the market. Since green products just enter into the sight of people, compared with the conventional products which people can easily find, green products' usage is relatively low especially when they cannot fulfil consumers' high expectations. For instance, Green Eco-Friendly Anti-Bacterial Laundry Detergent is a replacement green product for conventional detergents. Unfortunately, due to the eco-friendly ingredients, the effects of detergent had been weakened. Therefore, the washing degree of eco-friendly detergent is weaker than the normal detergent. Thus, the low usage and unsatisfied feelings lead to a low green purchase intention. This is consistent with Bhatia and Jain (2013) who stated that even though green products have been a hot topic by the researchers and businessmen in recent years, but the demand for them does not achieve the expected level (Bhatia & Jain, 2013).

Young, Hwang, McDonald and Oates (2010) found that many studies postulate that there exists a huge gap between consumers' attitudes and the actual willingness to pay for green products. Moreover, Arli et al. (2018) have also systematically found an attitude-behaviour gap among the studies about green consumption. There are only several theoretical frameworks that can be found with the limited developed definitive explanation for this gap. The discrepancy between consumers' attitudes toward green products and intention to purchase green products is called 'Green Gap' (Arli et al., 2018). It was found that 67 percent of consumers possessed a favourable attitude to consume organic food but only four percent really bought those goods (Joshi & Rahman, 2015). This shows that consumers do not keep pace with their attitudes towards green products. This green gap may be caused by low product availability and low perceived consumer effectiveness (Nguyen, Nguyen & Hoang, 2019).

The statistical methods and the respondents employed in the previous studies are reviewed to give an insight into the inconsistent results for the relationship between consumers' attitude towards green products and green purchase intention.

Different statistical methods have been applied in different studies to investigate the relationship between consumers' attitude towards green products and green buying intention. First of all, Structural Equation Modeling was employed most frequently in the previous studies (Arli et al., 2018; Prakash & Pathak, 2017; Chaudhary & Bisai, 2018; Setyawan et al., 2018; Xu, Hua et al., 2020). Next, Multiple Regression Analysis was applied by Hossain and Lim (2016). Thirdly, Hierarchical Regression Analysis was used by Choi and Johnson (2019). Statistical Package for the Social Sciences (SPSS) was used by Prakash and Pathak (2017) and Chaudhary and Bisai (2018) in conducting their data analysis.

Besides, various groups of samples have been used in different studies to determine the influence of consumers' attitude towards green products on the intention to consume green products. For instance, Prakash & Pathak (2017) used the sample of the young population in India which were walking around 30 malls areas at that moment. Next, university students were used as the research sample in India (Chaudhary & Bisai, 2018) and Indonesia (Setyawan et al., 2018). Besides, Arli et al. (2018) chose a mixture of university students and nonstudents in Indonesia. Additionally, the consumers who would potentially buy green furniture in China were selected in the study conducted by Xu, Hua, et al. (2020). Moreover, Hossain and Lim (2016) selected general consumers in Penang, Malaysia as their research sample. Other than that, consumers who bought green products in the last 12 months then and whose age was between 18 and 64 years old were chosen by Choi and Johnson (2019).

Due to the different research settings in previous studies, it had led to different results for the relationship between attitude towards green products and willingness to pay for green products. For example, Arli et al. (2018) and

Setyawan et al. (2018) examine the influence of consumers' attitude towards green products on the green purchase intention in Indonesia. However, the former used a combination of university students and nonstudents while the latter used solely university students. This might cause Arli et al. (2018) to obtain a significant result and cause Setyawan et al. (2018) to get an insignificant result.

In conclusion, there is the existence of two opposite results for the influence of consumers' attitude towards green products on the intention to buy green products. Most of the existing literature asserted that there is a significant relationship, while only a few studies stated insignificant results between consumers' attitude towards green products and willingness to pay for green products. These different results might be caused by the different respondents since the respondents have their own cultures, ranges of ages, gender, level of education, the policy of that particular country, and green knowledge (Barbarossa et al., 2015). Hence, these may be the reason why researchers can obtain different results.

2.1.3 Subjective Norm

There are different explanations of subjective norm from the previous studies. The first definition of subjective norm is the social pressures that individuals experience when deciding to do or not to do certain actions (Chen & Deng, 2016). And according to Arli et al. (2018), subjective norm can also be defined as beliefs about whether a majority agrees with a particular behaviour. Subjective norms are governed by a set of easily understood normative beliefs of important others which include family members, friends and co-workers (Chen & Deng, 2016). The important referents also include peers (Chaudhary & Bisai, 2018) and teachers (Mohiuddin, Mamun, Syed, Masud & Su, 2018).

There are mixed results for the influence of subjective norm on the intention to purchase green products. From the past studies, it was found that subjective norm has a significant influence on the intention to buy green products in developing countries like Malaysia (Teng et al., 2018), Indonesia (Arli et al., 2018) and India (Sreen, Purbey & Sadarangani, 2018). Besides, the significant influence of subjective norm on green purchase intention was also discovered in developed countries such as the United States (Choi & Johnson, 2019). According to the Theory of Planned Behaviour which was created by Fishbein and Ajzen (1975), subjective norm is linked to the behavioural intention. Moreover, subjective norm can affect the willingness to pay for green products because it reflects the social pressures that individuals feel to participate in targeted behaviours and is governed by a series of beliefs related to cultural values (Chen & Deng, 2016). Many researchers have also pointed out that personal consumption decisions are largely affected by the attitudes of important referents which include friends and family. In other words, consumers have a higher probability to act in a way that corresponds to group beliefs. Therefore, subjective norm can predict behaviour intention to some extent (Chen & Deng, 2016). Consumers may seek support from others when they are uncertain about the consequences of an action (Sreen et al., 2018). This kind of consumers' reaction may cause them to get influenced by others. Moreover, Sreen et al. (2018) also pointed out that subjective norm is the main factor affecting purchase intention.

However, some of the researchers also identified that subjective norm has no significant impact on the green purchase intention in developing nations such as Malaysia (Mamun, Mohamad, et al., 2018), India (Chaudhary & Bisai, 2018) and Iran (Yazdanpanah & Forouzani, 2015) and this result conforms to the study done by Tarkiainen and Sundqvist (2005). These insignificant results may be caused by the different mindsets of consumers. According to Paul et al. (2016), some consumers believe that the recognition of "important others" is not an important factor in purchasing green products. Besides, the people who are important to them such as their friends and family have failed to provide them with any positive impetus as to why they are buying green products. The insignificant result might also happen because the participants have education levels that are high.

According to Wang et al. (2018), consumers, whose level of education is high, are less affected by social pressure. Therefore, the respondents are not easily affected by social norm.

Since there are different results found in the relationship between subjective norm and intention to purchase green products, the statistical methods and samples used in the studies are examined.

A number of statistical methods have been used in the previous studies to examine the influence of subjective norm on the green purchase intention. The first one is Structural Equation Modelling that was applied the most in the previous studies such as researches conducted by Arli et al. (2018), Sreen et al. (2018), Mamun, Mohamad, et al. (2018), Chaudhary and Bisai (2018) and Yazdanpanah and Forouzani (2015). Secondly, Choi and Johnson (2019) used Hierarchical Regression Analysis. Thirdly, Teng et al. (2018) employed Multiple Regression Analysis. SPSS was employed to conduct the data analysis by Sreen et al. (2018) and Chaudhary and Bisai (2018).

The difference in statistical methods used may cause the inconsistent results of the studies studying the relationship between subjective norm and green buying intention. For example, both Teng et al. (2018) and Mamun, Mohamad, et al. (2018) conducted their studies to understand whether subjective norm significantly influences the green purchase intention in Malaysia. However, Teng et al. (2018) who used Multiple Regression Analysis found a significant relationship while Mamun, Mohamad, et al. (2018) who used Structural Equation Modelling found an insignificant relationship.

Besides, different types of respondents have also been used in the existing studies to examine the influence of subjective norm on the intention to purchase green products. For example, a combination of university students and nonstudents in

Indonesia was used by Arli et al. (2018). Next, low-income households with net income less than RM2000 in Malaysia were chosen by Mamun, Mohamad, et al. (2018). Besides, university students were the respondents for the studies conducted by Chaudhary and Bisai (2018) in India and Yazdanpanah and Forouzani (2015) in Iran. Furthermore, Teng et al. (2018) used consumers that purchase food product from a supermarket in Malaysia. In addition, educated urban consumers in India, with the minimum requirement of being a graduate, were selected by Sreen et al. (2018). Moreover, Choi and Johnson (2019) used individuals who bought green products in the past 12 months and whose age was between 18 and 64 years old in the United States as their respondents.

The mixed results for the relationship between subjective norm and green purchase intention may also be due to the variation in the respondents. For instance, Chaudhary and Bisai (2018) and Sreen et al. (2018) carried out their studies in India to investigate the influence of subjective norm on the green purchase intention in India by using Structural Equation Modelling. However, Chaudhary and Bisai (2018) who have chosen university students found an insignificant relationship while Sreen et al. (2018) who have selected urban consumers in India with the minimum requirement of being a graduate found a significant relationship. This shows that urban consumers who are at least graduates are more easily affected by social pressure compared to university students. This is inconsistent with Wang et al. (2018) who stated that individuals, whom education level is high, are less influenced by subjective norm.

In conclusion, different results for the influence of subjective norm on the intention to purchase green products were discovered in the existing literature. This might be due to the different statistical methods used like Structural Equation Modelling and Multiple Regression Analysis when studying the same country. Besides, characteristics of the respondents such as level of education and mindsets may also cause mixed results. This is because even though the same country and statistical method were used in two different studies, they obtained different results when they used different respondents.

2.1.4 Perceived Behavioural Control

Different explanations of perceived behavioural control are found from the previous researches. First, according to Arli et al. (2018), perceived behavioural control can be referred to as the belief of whether carrying out an action is difficult or easy. In other words, perceived behavioural control is described as a factor that causes the actions easier or more difficult to be done (Teng et al., 2018). For example, the availability and price of environmentally friendly food in a country, and the purchasing power of consumers may facilitate the green buying intention (Teng et al., 2018). Besides, perceived behavioural control also reflects the past experience and expected obstacles (Paul et al., 2016).

Mixed results were found in the previous studies examining the influence of perceived behavioural control on the intention to consume green products. From the previous studies, it was identified that perceived behavioural control has a significant influence on the purchase intention of green products in developing countries like Indonesia (Arli et al., 2018), China (Chen & Deng, 2016), Malaysia (Teng et al., 2018) and India (Paul et al., 2016). This is consistent with many studies that have shown that perceived behavioural control is positively correlated with purchase intentions. According to Arli et al. (2018), it was found that the influence of perceived behavioural control on environmental behaviour is vital in terms of energy conservation and green power product selection. Therefore, it is suggested that perceived behavioural control should be used to predict the intention to buy green products. Moreover, according to Arli et al. (2018), perceived behavioural control has a positive influence on an individual's willingness to turn green and buy green products.

However, some of the researchers also identified that perceived behavioural control is not significant in influencing the green product buying intention in developing country like Iran (Yazdanpanah & Forouzani, 2015), Malaysia (Khor

& Hazen, 2017) and Nigeria (Karatu & Mat, 2015). An insignificant result was also found in developed countries like the United States (Choi & Johnson, 2019). The inconsistent results can be explained by the nature of the consumers' mindset. According to Choi and Johnson (2019), if the consumers purchased green products in the previous years, they may already have a high degree of confidence in their capability in purchasing green products because they bought it before. Therefore, the perceived behaviour control no longer affects their green purchase intention. Besides, the insignificant influence of perceived behavioural control can also be explained by the increase in the availability of green products. As green products become more accessible, contemporary consumers may no longer be aware of the barriers to obtaining green products (Choi & Johnson, 2019).

Due to the difference in results for the studies examining the influence of perceived behavioural control on the green purchase intention, the statistical methods and participants chosen in different studies are inspected to give a better understanding to this situation.

Different statistical methods have been used in previous studies to explore the influence of perceived behaviour control on the intention to purchase green products. First, Structural Equation Modelling is the most commonly applied method among the researches. It was applied by Arli et al. (2018), Paul et al. (2016), Yazdanpanah and Forouzani (2015), Khor and Hazen (2017) and Karatu and Mat (2015). Secondly, Hierarchical Regression Analysis was used by Choi and Johnson (2019). Thirdly, Chen and Deng (2016) applied Stepwise Regression Analysis in their study. Fourthly, Multiple Regression Analysis was employed by Teng et al. (2018). SPSS was used as the tool for the data analysis by Paul et al. (2016) and Karatu and Mat (2015).

It is noticed that the difference in statistical methods used has contributed to the mixed results regarding the influence of perceived behavioural control on the green purchase intention. For example, Teng et al. (2018) and Khor and Hazen

(2017) conducted studies to examine the influence of perceived behavioural control on the green buying intention in Malaysia. However, Teng et al. (2018) who used Multiple Regression Analysis found a significant relationship while Khor and Hazen (2017) who used Structural Equation Modelling found an insignificant relationship.

Besides, a variety of samples have also been used in the existing studies to study the relationship between perceived behavioural control and intention to buy green products. For example, a mix of university students and nonstudents in Indonesia was chosen by Arli et al. (2018) in their study. Besides, Chen and Deng (2016) used the respondents from a survey company in China called Sojump. Next, the consumers who bought food products from a supermarket in Malaysia were chosen by Teng et al. (2018). Besides, the consumers who bought electrical and electronic equipment in Malaysia were selected by Khor and Hazen (2017). In addition, the consumers in India, who were highly educated and were 18 years old or older, were chosen by Paul et al. (2016) as their respondents. Furthermore, university students in Iran were the respondents in the study conducted by Yazdanpanah and Forouzani (2015). Moreover, Karatu and Mat (2015) invited university lecturers in Nigeria as the participants. Additionally, Choi and Johnson (2019) selected respondents, who were between 18 and 64 years old and had the experience of buying green products in the past 12 months, as their participants in their study.

The difference in the respondents chosen might lead to the inconsistent results for the studies studying the influence of perceived behavioural control on the green purchase behaviour. For instance, Teng et al. (2018) and Khor and Hazen (2017) examine the influence of perceived behavioural control on the green purchase intention in Malaysia. Teng et al. (2018) selected the consumers of food products and obtained a significant result. In contrast, Khor and Hazen (2017) picked the consumers of electrical and electronic equipment and found an insignificant influence of perceived behavioural control on the intention to purchase green products. This may be because environmentally friendly food products are more

accessible to the consumers compared to environmentally friendly electrical and electronic equipment. Therefore, the consumers of food products feel less difficulty in buying products that are environmentally friendly.

In conclusion, there are inconsistent results in existing literature for the influence of perceived behavioural control on the green purchase intention. This may be because the different statistical methods such as Structural Equation Modelling and Multiple Regression Analysis yield different results. Besides, respondent characteristics may also lead to the problem. This is because even though the studies use the same country such as Malaysia, their results are not the same when they selected different respondents.

2.1.5 Environmental Concern

According to Mutsaers (2015), different definitions have been used to describe environmental concern because the people who do researches on environmental concern come from different fields of study. Lasuin and Ching (2014) defined environmental concern as to how much a person is emotionally involved in environmental problems. According to Ahmad and Thyagaraj (2015), environmental concern is the level of people's consciousness of environmental issues and their support of endeavours to resolve these issues or their readiness to contribute personally to resolve these issues (Ahmad & Thyagaraj, 2015). The definition which was used by Ahmad and Thyagaraj (2015) will be used throughout this study because it is more commonly used in the existing literature of green consumption such as in studies done by Paul et al. (2016), Erdil (2018), Ahmad, Syed, Naseer and Rasool (2018) and Alibeli and White (2011).

Environmental concern is of central importance in researches associated with the environment (Choshaly, 2017; Yadav & Pathak, 2016; Ahmad & Thyagaraj, 2015) and is often considered as an individual's degree of concern towards environmental problems (Jaiswal & Kant, 2018). Generally, the environmental concern of a person can be shown in separate ways at an individual level, from having specific beliefs to carrying out actual behaviours (Choi & Johnson, 2019). Besides, Prakash and Pathak (2017) explained that environmental concern is represented by participating in environmental conservation. Therefore, it can notably motivate humans to act in a way that makes environmental problems less severe (Mostafa, 2006; Ahmad et al., 2018). As a result, it was asserted that environmental concern is vital in affecting pro-environmental behaviours (Jaiswal & Kant, 2018; He, Zhan & Hu, 2018).

The previous studies examining the influence of environmental concern on the intention to purchase green products have come to contradictory conclusions. It was found that environmental concern has a significant influence on the intention to purchase green products in developing countries such as India (Prakash & Pathak, 2017), Thailand (Maichum, Parichatnon & Peng, 2016) and Malaysia (Goh & Balaji, 2016). Furthermore, it was also found that the absence of environmental concern significantly reduces the willingness to pay more for green products (Wei et al., 2018). This indicates that as consumers have a higher environmental concern, they are more willing to pay for green products (Yadav & Pathak, 2016). In other words, when consumers are more emotionally involved in environmental problems, there is more probability for them to pay for green products (Lasuin & Ching, 2014). Similarly, He et al. (2018) explained that consumers who are more environmentally concerned are less sensitive to the economic cost of green products so they are more willing to pay for green products. Some explanations are put forward to understand the significant influence of environmental concern on the willingness to pay for green products. First, consumers with high environmental concern are more likely to consider the environmental impact of their purchase behaviours (Ahmad et al., 2018). As a result, when making purchase decisions, they have a higher willingness to choose and pay more for green products (Ahmad et al., 2018). Secondly, by being willing

to pay for green products, they can show their commitment to environmental protection (Prakash & Pathak, 2017). Lastly, they are more willing to pay for green products since they have the intention to make sure that they and future generations can live a healthy life on this planet (Onurlubaş, 2018).

However, an insignificant influence of environmental concern on the intention to purchase green products was discovered in developing countries such as Malaysia (Choshaly, 2017), India (Chaudhary & Bisai, 2018) and Indonesia (Setyawan et al., 2018). Moreover, an insignificant influence of environmental concern on the green purchase intention is also identified in developed countries such as the United States (Choi & Johnson, 2019). According to Khaola et al. (2014), many studies have discovered the insignificant relationship between environmental concern and pro-environmental behaviours. This means that even though a person has environmental concern, he or she does not always reflect it in their behaviour. For example, the researchers of Pew Research Center claimed that almost all respondents assent that the environment should be protected, but only 33 percent of them are willing to pay extra to reduce the damage to the environment (Pew Research Center, 2010). This may be due to the low quality and poor product attributes of green products (Joshi & Rahman, 2015).

Since it was found that there are inconsistent results for the influence of environmental concern on the green purchase intention, the statistical methods and samples used in these studies are explored to understand why this phenomenon happened.

It is observed that different statistical methods were employed to explore the influence of environmental concern on the green purchase intention. The first one is Structural Equation Modeling which was used by Prakash and Pathak (2017), Chaudhary and Bisai (2018), Maichum et al. (2016), Goh and Balaji (2016) and Setyawan et al. (2018). Secondly, Multiple Regression Analysis was employed by Choshaly (2017). Thirdly, Hierarchical Regression Analysis was applied by Choi

and Johnson (2019). SPSS was used by Prakash and Pathak (2017), Maichum et al. (2016), Choshaly (2017) and Chaudhary and Bisai (2018) to do their data analyses.

The inconsistent results from existing literature may be caused by the difference in the statistical methods used. For example, Goh and Balaji (2016) and Choshaly (2017) studied the influence of environmental concern on the green purchase intention in Malaysia. However, on the one hand, Goh and Balaji (2016) used Structural Equation Modelling and found a significant relationship. On the other hand, Choshaly (2017) used Multiple Regression Analysis and found an insignificant relationship.

Furthermore, different types of consumers have been chosen as participants in the existing studies examining the influence of environmental concern on the green purchase intention. First, university students were selected as respondents in various studies conducted in different countries such as Malaysia (Choshaly, 2017), India (Chaudhary & Bisai, 2018) and Indonesia (Setyawan et al., 2018). Besides, young consumers who were between 18 and 24 years old were chosen as respondents in a study conducted in India by Prakash and Pathak (2017). In addition, general retail shoppers in Malaysia were picked by Goh and Balaji (2016). Other than that, a study conducted in Thailand by Maichum et al. (2016) has employed consumers, who were more than 18 years old and had at least graduated from high school. Consumers in the United States, who were between 18 and 64 years old and had at least bought one green product within one year then, were used by Choi and Johnson (2019).

The inconsistent results may also be caused by the difference in the characteristics of the respondents. For example, Goh and Balaji (2016) and Choshaly (2017) studied the influence of environmental concern on the green purchase intention in Malaysia. However, Goh and Balaji (2016) who used young consumers between 18 and 24 years old found a significant relationship but Choshaly (2017) who selected university students as their participants found an insignificant relationship.

In addition, Prakash and Pathak (2017) and Chaudhary and Bisai (2018) examined the influence of environmental concern on the green purchase intention in India. However, Prakash and Pathak (2017) who chose general retail shoppers as the respondents found a significant result while Chaudhary and Bisai (2018) who invited university students as their participants found an insignificant result. These show that university students do not translate their environmental concern into green purchase intention. Therefore, this might suggest that people with higher education level are less inclined to translate their environmental concern into green purchase intention.

In conclusion, inconsistent results for the influence of environmental concern on the intention to purchase green products were found in the existing literature. This might be caused by the difference of the statistical methods used such as Structural Equation Modelling and Multiple Regression Analysis when studying the same country. Besides, it may also be attributed to the difference in characteristics of the respondents especially in terms of their education level. This is because even though two studies examine the influence of environmental concern on the green purchase intention in the same country, the study which has respondents with high education level such as university students found an insignificant influence of environmental concern on the green purchase intention while the study which did not specify the education level found a significant influence.

2.1.6 Environmental Knowledge

Generally, knowledge is a person's comprehension and awareness of a concept (Lin & Niu, 2018). Besides, it is also defined as facts or information that are learned by an individual and kept in his or her memory (Kusuma & Handayani, 2018). Specifically, environmental knowledge means the basic understanding of the truths, ideas and relationships about the natural surroundings and its vital ecosystems (Mostafa, 2006; Goh & Balaji, 2016; Kumar, Manrai & Manrai, 2017; Jaiswal & Kant, 2018). Environmental knowledge about green products is the understanding of the environmental impact and the production process of the products (Erdil, 2018). Environmental knowledge is used interchangeably with green knowledge and ecological knowledge in prior studies (Karatu & Mat, 2015).

It was reported that environmental knowledge can transform an individual into someone who is environmentally sensitive (Sharaf et al., 2015). According to Li, Li, Jin and Wang (2019), consumers who have environmental knowledge have a high readiness to take the initiative to protect the environment. This is consistent with Mostafa (2006) who stated that the knowledge about a particular environmental issue and the ways to actively tackle the issue is important in motivating people to involve actively in combating environmental issues. This is because after having environmental knowledge and understanding that humans contribute much to the environmental problems worldwide, consumers can notice their responsibility to preserve the environment and support sustainability development (Azizan & Suki, 2013; Maichum et al., 2017). Therefore, people who have environmental knowledge are more likely to involve in favourable environmental behaviours (Sharaf & Isa, 2017). Environmental knowledge has been used in various types of environmental researches such as those examining environmental attitude, environmental friendly behavioural intention, willingness to pay for green products, and green purchase intention (Choi & Johnson, 2019).

There were inconsistent results concerning the influence of environmental knowledge on the intention to purchase green products (Choi & Johnson, 2019). It was found that environmental knowledge has a significant impact on the intention to buy green products in developing countries such as Malaysia (Goh & Balaji, 2016), India (Chauhan & Bhagat, 2017) and Thailand (Maichum et al., 2017), and in developed countries like the United States (Choi & Johnson, 2019). Furthermore, Wei et al. (2018) also identified that environmental knowledge is significantly related to the willingness to pay for green products. This shows that after consumers gain knowledge of the negative impacts of environmental issues and the significance of environmental sustainability, there is a higher chance for them to pay for green products (Kusuma & Handayani, 2018). This also indicates that environmental knowledge is vital in the consumers' decision-making process to buy green products (Mei et al., 2012; Goh & Balaji, 2016; Maichum et al., 2017; Hossain & Lim, 2016). This is because environmental knowledge can determine the way consumers gather and arrange information, the amount of information employed in the decision-making process and the way they evaluate goods and services (Kusuma & Handayani, 2018). Therefore, by having environmental knowledge, consumers can differentiate green products from conventional products (Hossain & Lim, 2016). As they become more informed and knowledgeable about green products, there is a higher chance for them to purchase green products (Maichum et al., 2016). In summary, as consumers' environmental knowledge about green products increases, their environmental ethics are likely to improve so their consumption behaviours become more sustainable (Erdil, 2018).

In contrast, an insignificant influence of environmental knowledge on the intention to purchase green products was also identified in developing countries such as Malaysia (Sharaf & Isa, 2017), India (Ahmad & Thyagaraj, 2015) and Thailand (Maichum et al., 2016). This indicates that even though an individual has environmental knowledge, he or she does not always carry out environmentally friendly behaviours (Sharaf & Isa, 2017). According to Sharaf et al. (2015), the insignificant influence of environmental knowledge on the green purchase intention is due to the perception of many consumers that green products are

specialty products that are specific to a particular group of consumers. Therefore, they do not take the initiative to gain knowledge related to these products (Sharaf et al., 2015). As a result, the respondents' degree of environmental knowledge is too low to induce their intention to buy green products (Erdil, 2018). This is consistent with Jaiswal and Kant (2018) who reported that the insignificant influence of environmental knowledge on the green purchase intention in India is caused by the low environmental knowledge among people in India including the young and educated ones.

Since inconsistent results for the influence of environmental knowledge on the green purchase intention were found in the extant literature, the statistical methods and respondents employed are analysed to understand why the inconsistent results occur.

It was observed that different statistical methods were employed to study the influence of environmental knowledge on the intention to purchase green products. Structural Equation Modeling was used by Goh and Balaji (2016), Ahmad and Thyagaraj (2015), Maichum et al. (2016) and Maichum et al. (2017). Next, Multiple Regression Analysis was employed by Sharaf and Isa (2017) and Chauhan and Bhagat (2017). Other than that, Hierarchical Regression Analysis was utilized by Choi and Johnson (2019). To carry out the aforementioned data analysis, SPSS was employed by Ahmad and Thyagaraj (2015), Maichum et al. (2016) and Maichum et al. (2017).

The mixed results discovered in the existing literature may be attributed to the difference in the statistical methods used. For example, both the studies conducted by Goh and Balaji (2016) and Sharaf and Isa (2017) examine the influence of environmental knowledge on the green purchase intention in Malaysia. However, Goh and Balaji (2016) who used Structural Equation Modeling found a significant relationship while Sharaf and Isa (2017) who used Multiple Regression Analysis found an insignificant relationship.

Furthermore, different respondents have been selected as the participants of the existing studies examining the influence of environmental knowledge on the green purchase intention. University students in Universiti Utara Malaysia were chosen as the respondents in the study conducted by Sharaf and Isa (2017). Besides, young consumers were chosen in studies conducted in India (Chauhan & Bhagat, 2017) and Thailand (Maichum et al., 2017). Moreover, retail shoppers, who were 18 years or older, were picked in a study carried out in Malaysia by Goh and Balaji (2016). Other than that, Ahmad and Thyagaraj (2015) used Indian consumers, who had bought electronic products before, as their participants. In addition, consumers, who were 18 years or older and had at least completed high school, were used in a study conducted in Thailand by Maichum et al. (2016). Furthermore, consumers, who were between 18 and 64 years old and had bought at least one green product within one year then, were chosen in a study carried out in the United States by Choi and Johnson (2019).

The mixed results concerning the influence of environmental knowledge on the green purchase intention may also be caused by the difference in the respondents employed in different studies. For example, both Maichum et al. (2017) and Maichum et al. (2016) used Structural Equation Modelling to study the impact of environmental knowledge on the green purchase intention in Thailand. Maichum et al. (2017) who chose young consumers, who were between 18 and 29 years of age, as respondents found a significant influence of environmental knowledge on the green purchase intention. In contrast, Maichum et al. (2016) who chose consumers, who were 18 years or older and have at least completed high school, found an insignificant influence of environmental knowledge on the green purchase intention. This suggests that the environmental knowledge of the consumers in the sample of Maichum et al. (2016) which cover a wider age range than Maichum et al. (2017) may be too low to translate into green purchase intention.

In short, inconsistent results were found for the influence of environmental knowledge on the green purchase intention. The difference in statistical methods

like Structural Equation Modeling and Multiple Regression Analysis in different studies examining the same country may have contributed to this condition. Besides, this may also be caused by the difference in the respondents' age and education level. This is because even though the influence of environmental knowledge on the green purchase intention in the same country was examined, different results were obtained. The study which used educated consumers found a significant relationship while the study which used young consumers found an insignificant relationship.

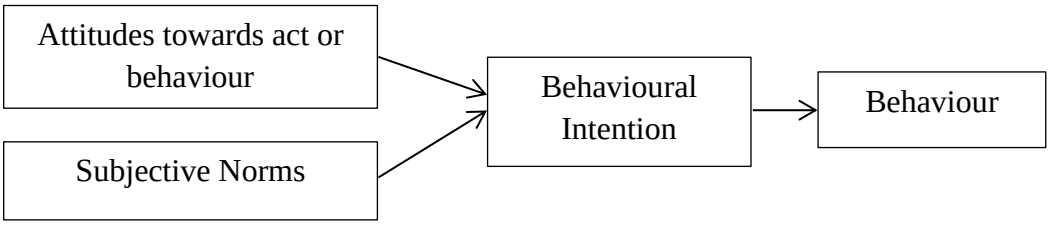
2.2 Theoretical Framework

The following theories have been developed by past studies to explain the relationship between willingness to pay for green products and its determinants which are attitudes towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge. They include the Theory of Reasoned Action, Theory of Planned Behaviour and Extended Theory of Planned Behaviour.

2.2.1 Theory of Reasoned Action

Figure 2.1:

Theory of Reasoned Action



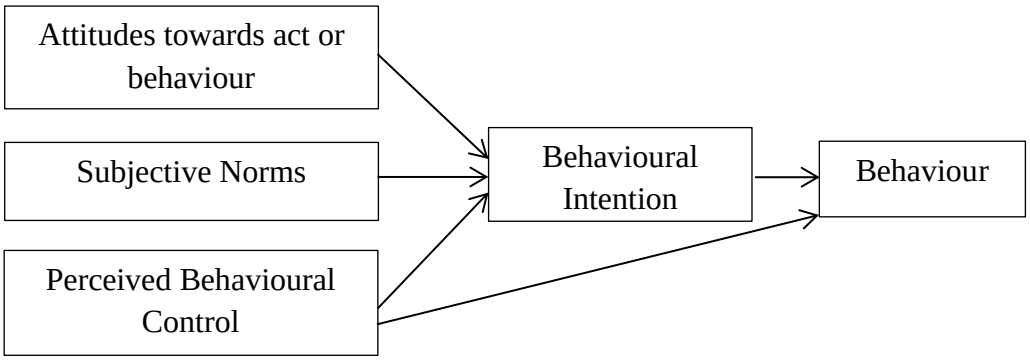
Source: Fishbein and Ajzen (1975)

Theory of Reasoned Action was introduced by Fishbein and Ajzen (1975). It has been widely used in various studies including those related to corporate ethics, consumer ethics, and decision to buy ethical products, environmental problems (Sun, Teh & Linton, 2018). Prakash and Pathak (2017) stated that it is a social psychology theory which tries to estimate and comprehend some particular behaviour of humans. It was argued that understanding the relationship between attitudes, intentions and behaviours is important in understanding green product purchase behaviours (Sun et al., 2018). Therefore, this theory is appropriate in researches related to environmental problems and consumption of green products because the main components in this theory are attitudes, intentions and behaviour (Sun et al., 2018). In this theory, two variables, which are attitude and subjective norms, will influence individuals' behavioural intention, which in turn strongly determines their behaviour (Prakash & Pathak, 2017). This theory was used by Prakash and Pathak (2017), Mei et al. (2012) and Sun et al. (2018) to study the factors influencing green purchase intention.

2.2.2 Theory of Planned Behaviour

Figure 2.2

Theory of Planned Behaviour



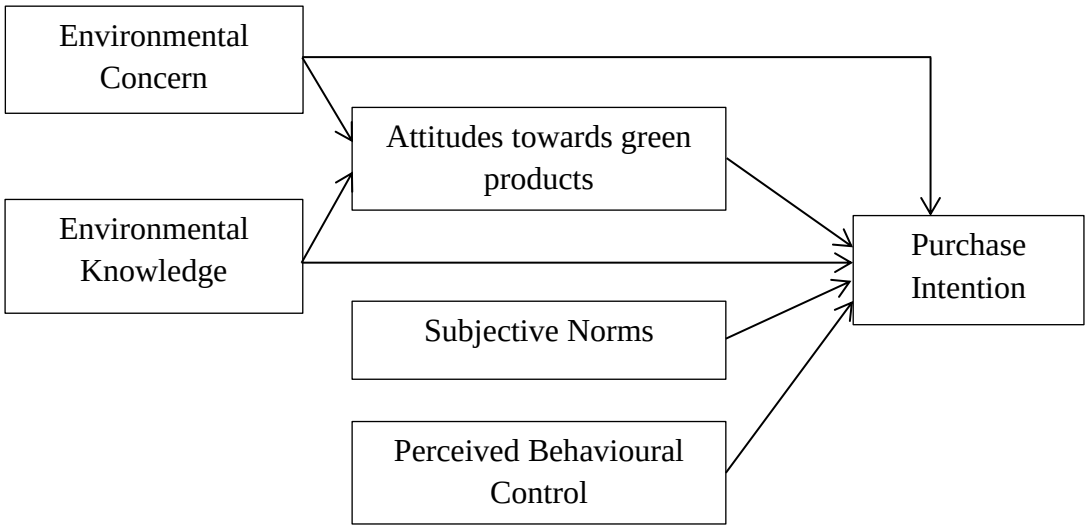
Source: Ajzen (1991)

Theory of Reasoned Action has been criticised because it only deals with completely volitional control (Paul et al., 2016). Therefore, based on Theory of Reasoned Action, Ajzen (1991) has developed a new theory called Theory of Planned Behaviour. Compared to Theory of Reasoned Action, this theory has included one more variable, which is perceived behavioural control (Kusuma & Handayani, 2018). This variable will not only influence behavioural intention, but it will also influence the behaviour (Chaudhary & Bisai, 2018). Perceived behavioural control is able to enhance the predictability of the theory because it is a non-volitional factor (Paul et al., 2016). This theory has been utilized in various studies examining pro-environmental behaviour (Hsu et al., 2017). According to Yadav and Pathak (2016), this theory is very handy in understanding consumers' intention and behaviour towards various green products and services like green restaurants, green hotels, energy-saving appliances, green products and organic products. Besides, this theory has also been utilized to explain the green consumer behaviour among young people including undergraduate students (Yadav & Pathak, 2016). According to Sreen et al. (2018), this theory is proved to be better than other theories in estimating individuals' behaviour.

2.2.3 Extended Theory of Planned behaviour

Figure 2.3

Extended Theory of Planned Behaviour



Source: Yadav and Pathak (2016)

However, Theory of Planned Behaviour was also criticized because it emphasizes too much on self-interest motives while fails to take into account other variables (Nguyen, Lobo & Greenland, 2016). Therefore, lately, in developing countries, the inclusion of additional variables in Theory of Planned Behaviour becomes a profound topic in the studies related to green consumption (Moon, Mohel & Farooq, 2019). This is able to enhance the predictability of the theory (Yadav & Pathak, 2016). As a result, the purchase intention for green products can be understood in a more comprehensive way (Paul et al., 2016).

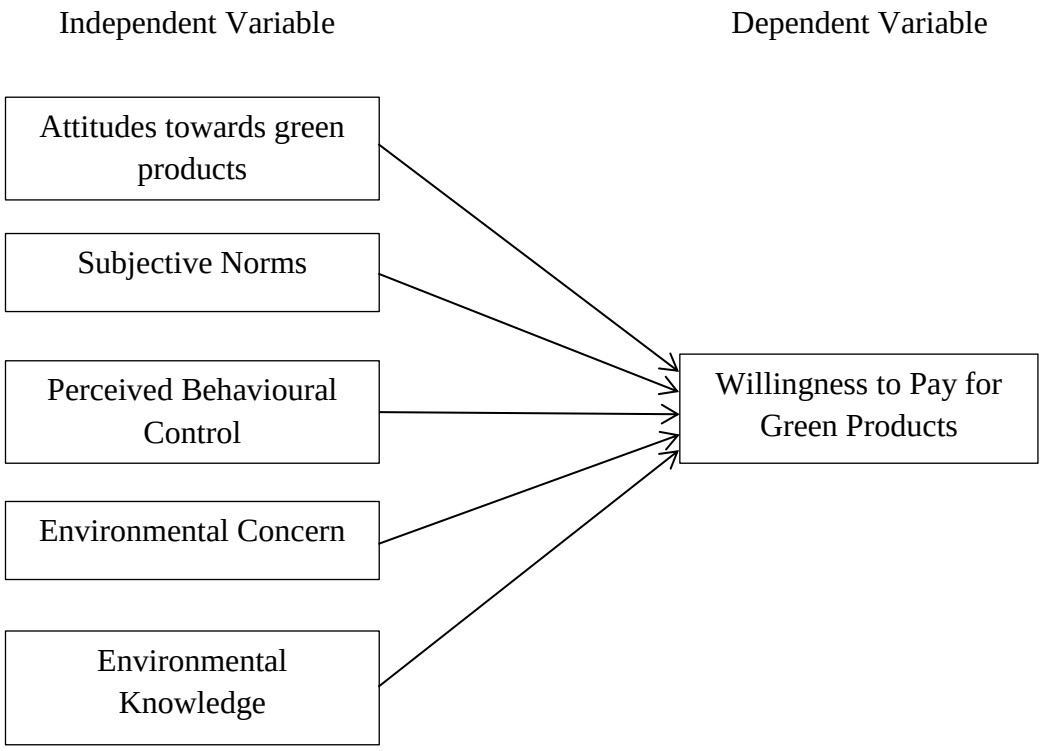
Hence, Theory of Planned Behaviour can be expanded by adding new variables into the theory (Yadav & Pathak, 2016). It was suggested that cognitive factors such as environmental concern and environmental knowledge should be added to the theory (Jaiswal & Kant, 2018). According to Maichum et al. (2016), previous studies have overlooked the role of environmental concern and environmental

knowledge even though they are vital in influencing buying decision making for green products. Some studies which included both environmental concern and environmental knowledge in their model are Choi and Johnson (2019), Maichum et al. (2016), Yadav and Pathak (2016) and Setyawan et al. (2018).

2.3 Conceptual Framework

Figure 2.4

Conceptual Framework



Based on the previous theoretical models that have been discussed in the last section, a conceptual framework is introduced in Figure 2.1 to study the willingness to pay for green products among undergraduate students in UTAR. This conceptual framework involves five independent variables which are attitudes towards green products, subjective norms, perceived behavioural control,

environmental concern and environmental knowledge. Based on previous studies, it is inferred that these independent variables will significantly influence the willingness to pay for green products, which is a type of green purchase intention. Therefore, this framework will be used to examine whether the inference is correct. Hence, the hypotheses will be constructed based on this framework in the subsequent section.

2.4 Hypotheses Development

2.4.1 Consumers' Attitudes towards Green Products and Willingness to Pay for Green Products

Consumers' attitude towards green products can possibly have a significant influence on the willingness to pay for green products, which is a more specific type of green purchase intention. According to Khoiriyah and Toro (2018), when people has a strong belief that green products are healthier and able to protect the environment, they will form a positive attitude towards these products. Then, this will induce them to have high green purchase intention despite the higher price of green products compared to conventional products (Choi & Cho, 2015).

Some studies have examined the influence of consumers' attitude towards green products on the intention to buy green products in developing countries such as China (Bhutto et al., 2019), India (Jain & Agarwal, 2017; Ahmad & Thyagaraj, 2015), Malaysia (Mamun, Fazal, et al., 2018) and Indonesia (Khoiriyah & Toro, 2018) and the results showed that attitude towards green products is significantly related to the green purchase intention. In addition, Chaudary and Bisai (2018)

found that a significant influence of attitude towards green products on the green purchase intention exists among university students. Therefore, the first hypothesis developed for this study is:

H1: There is a significant relationship between attitude towards green products and willingness to pay for green products among undergraduate students in UTAR.

2.4.2 Subjective Norm and Willingness to Pay for Green Products

Next, subjective norm can also significantly influence the willingness to pay for green products. This is because subjective norm indicates the social pressures faced by the respondents in making their decisions (Chen & Deng, 2016). According to Chen and Deng (2016), consumers have a higher tendency to conform to what people they value believe or do. As a result, if the people important to them believe that they should buy green products, they are more likely to buy these products even though the price is higher than conventional products.

Previous studies have studied the influence of subjective norm on the green purchase intention and concluded a significant impact of subjective norm on the intention in developing countries such as Taiwan (Hsu et al., 2017), Indonesia (Arli & Tjiptono, 2017), India (Joshi, Shoerey & Gandhi, 2019), Vietnam (Nguyen et al., 2016) and Pakistan (Moon et al., 2019). Furthermore, the significant relationship was also found among young consumers such as university students by Yadav and Pathak (2016). Therefore, the second hypothesis developed for this study is:

H2: There is a significant relationship between subjective norm and willingness to pay for green products among undergraduate students in UTAR.

2.4.3 Perceived Behavioural Control and Willingness to Pay for Green Products

Besides, perceived behavioural control has also been found to significantly influence the willingness to pay for green products. Perceived behavioural control represents the belief of whether doing an action is difficult or easy (Arli et al., 2018). Therefore, when consumers perceive that it is easy to buy green products because the products are widely accessible and low-cost, they will have higher perceived behavioural control. As a result, the probability for them to have the willingness to pay for green products is greater.

The significant influence of perceived behavioural control on the green purchase intention was found in India (Chaudhary & Bisai, 2018), Taiwan and Indonesia (Mufidah et al., 2018), China (Wang et al., 2018), Thailand (Vantamay, 2018) and Malaysia (Mamun, Fazal, et al., 2018; Mamun, Mohamad, et al., 2018). Besides, Vantamay (2018) found that perceived behavioural control significantly influences the green purchase intention among university students. Therefore, the third hypothesis developed for this study is:

H3: There is a significant relationship between perceived behavioural control and willingness to pay for green products among undergraduate students in UTAR.

2.4.4 Environmental Concern and Willingness to Pay for Green Products

Besides, environmental concern can also have a significant influence on the willingness to pay for green products. This is because, when people are concerned about the environment, they will participate in environmental protection efforts to make environmental problems less serious (Prakash & Pathak, 2017). Due to their concern, these consumers are more careful when choosing products in order to decrease the environmental impact of their purchase behaviours (Ahmad et al., 2018). As a result, consumers with high environmental concern probably have a higher willingness to pay for green products compared to other consumers.

Numerous studies have studied the influence of environmental concern on the intention to purchase green products. Some studies found that environmental concern has a significant influence on the green purchase intention in developing countries such as Malaysia (Ramayah, Lee & Mohamad, 2010), Turkey (Onurlubaş, 2018), Indonesia (Puspitasari, Rinawati, Suliantoro & Sutrisno, 2018) and India (Vasan, 2018). Additionally, Lasuin and Ching (2014) found a significant influence of environmental concern on the green purchase intention among university students. Therefore, the fourth hypothesis developed for this study is:

H4: There is a significant relationship between environmental concern and willingness to pay for green products among undergraduate students in UTAR.

2.4.5 Environmental Knowledge and Willingness to Pay for Green Products

Lastly, environmental knowledge can also be significantly related to the willingness to pay for green products. As consumers have more environmental knowledge, they are more likely to have environmental responsibility (Azizan & Suki, 2013). Besides, compared to consumers with low environmental knowledge, they are more knowledgeable about differentiating green products from conventional ones (Hossain & Lim, 2016). As a result, consumers with high environmental knowledge have a higher probability to be willing to pay for green products.

Many studies have analysed the influence of environmental knowledge on the green purchase intention and found a significant influence of environmental knowledge on the intention to consume green products in developing countries like Malaysia (Azizan & Suki, 2013), India (Chauhan & Bhagat, 2017), Indonesia (Kusuma & Handayani, 2018) and Thailand (Maichum et al., 2017). Besides, Setyawan et al. (2018) discovered that environmental knowledge is significantly related to the green purchase intention among undergraduate students. Therefore, the fifth hypothesis developed for this study is:

H5: There is a significant relationship between environmental knowledge and willingness to pay for green products among undergraduate students in UTAR.

2.5 Conclusion

The review of literature on the independent variables (attitude towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge) and dependent variable (willingness to pay for green products) are provided in this chapter. Besides, the theoretical frameworks used in previous studies are also explained. Furthermore, the conceptual framework and the hypotheses for this study are developed.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

The key purpose of this study is to examine the willingness to pay for green products among undergraduate in UTAR and the factors that affect their willingness. To achieve this objective, research methodology, which is discussed throughout this chapter, is very important. The research design is firstly addressed. Then, the data collection method is explained. Subsequently, the sampling design, research tool, scales and definitions are discussed. Furthermore, the types of data processing and data analysis employed are explained. The quantitative study design has been used in this study. Online questionnaires are used to gather the primary data, and samples are drawn by using a quota sampling method.

3.1 Research Design

Research design is defined as "a detailed proposal created to solve a research problem" (Zikmund, Babin, Carr & Griffin, 2013). There are two types of research design which are qualitative research and quantitative research.

Quantitative research involves numerical measurement and analysis. Therefore, statistics are used to analyse the data obtained. That is why quantitative research methods can be considered scientific in nature (Daniel, 2016). The application of statistical methods in data analysis of quantitative research can decrease the time

and effort required by researchers to describe the results (Daniel, 2016). Besides, it can also ensure the objectivity of studies (Daniel, 2016).

In this study, quantitative research is applied. This research design was adopted by Khoiriyah and Toro (2018), Teng et al. (2018) and Khor and Hazen (2017) to investigate the factors affecting green purchase intention. The questions in the survey questionnaire are designed as fixed-alternative. This type of questions means that the questions are close-ended which let a participant select his or her answers from a fixed list of potential responses (Hruschka et al., 2004).

3.2 Data Collection

One of the vital steps in every study is to collect data. In the end, the level of accuracy of the data collected will affect the outcome of the results. According to Sekaran and Bougie (2010), there are two categories of data sources, namely primary data and secondary data. In this study, the former is selected to gather the data to reach the research objective.

3.2.1 Primary data

When unknown data is gathered for the first time for a specific purpose or to solve certain problems, it is called the primary data (Sekaran & Bougie, 2013). In collecting primary data, there are few techniques, including questionnaires, surveys and government documents.

In order to gather primary data, questionnaires are given to target respondents to collect information relevant to this research topic. According to Zikmund et al. (2013), the questionnaire is more dependable than other methods because it is in written form that provides the respondents with various choices for each question. In addition, the answers to the questionnaire are kept completely anonymous, private and confidential (Daniel, 2016). In the study, a series of questions related to willingness to pay for green products are asked in the questionnaire. The reason for using the questionnaire in this study is that it is a low cost and a less time-consuming method of collecting data from interviewees (Zikmund et al., 2013). It was used in studies conducted by Khoiriyah and Toro (2018), Teng et al. (2018) and Khor and Hazen (2017) to study factors of green purchase intention.

3.3 Sampling Design

3.3.1 Target Population

The target population represents all respondents who meet the particular standard, especially for a research investigation (Mohsin, 2016). The researchers have the responsibility to make sure that the respondents are from the target population to gather and analyse the right data. In other words, it is vital to confirm that the respondents are eligible for the survey.

The objective of this study is to investigate the factors that can influence the willingness to pay for green products among undergraduate students in UTAR Kampar Campus. Therefore, the target population of this study are all undergraduate students in UTAR Kampar Campus.

3.3.2 Sampling Location

The place that is selected to collect the data is the sampling location. Since the target population are all undergraduate students in UTAR Kampar Campus, the sampling location selected is UTAR Kampar Campus.

3.3.3 Sampling Elements

An element refers to any single unit or case from a target population. By using a certain sampling technique, some elements from the population will be chosen in a study to be analysed. In this study, the sampling elements or target respondents are UTAR undergraduate students selected from six different faculties in Kampar campus based on quota sampling. Besides faculties, the selected respondents for this study are also different in terms of genders, ages, ethnicities and current years of study.

3.3.4 Sampling Technique

Zikmund et al. (2013) asserted that there are two methods to do the sampling, namely probability and non-probability sampling. Probability sampling means the situation where each individual of the target population has known or nonzero probability of being chosen as a sample subject. On the other hand, the unknown or prearranged opportunity of being chosen as a sample subject is regarded as non-probability sampling. Based on both sampling designs, there are different types of sampling strategies (Sekaran & Bougie, 2010).

Data employed in this study is gathered through the questionnaires designed for students who are pursuing their degrees. In this study, quota sampling, which belongs to a non-probability sampling technique, has been selected to choose respondents in UTAR Kampar Campus. It is a sampling technique which can be used without having a sampling frame (Yang & Banamah, 2014). This technique is chosen because Brick (2011) claimed that quota sampling generates results which are similar to results obtained by using probability sampling. Besides, quota sampling also improves the problems of low response rate faced by probability sampling (Yang & Banamah, 2014).

This method was used in some empirical studies. Sheng et al. (2019) had used quota sampling techniques to collect data from adults (ages 18 or over) from India. Furthermore, the study done by Sreen et al. (2018) employed the quota sampling technique to gather data from the Indian consumers and also graduate students in different educational institutes. Besides, Paul et al. (2016) also selected the quota sampling technique to choose their target sample who resided in India. In short, quota sampling is a basic selection process of sampling and it is easy to understand. It allows researchers to sample a subgroup to fulfil the objectives of their studies. Hence, adopting quota sampling enables the provision of adequate and trustworthy data to carry out the pilot test, and proceed to test the hypotheses (Sreen et al., 2018).

3.3.5 Sampling Size

According to Krejcie and Morgan (1970), they claimed that the National Education Association's research division had published a formula to determine sample size. Besides, they provided a table for the decision of the sample size to ensure a good decision model. In this study, the sampling size is determined by the "Table for Determining Sample Size from a Given Population" (Refer to

Appendix 1.3). As shown in Table 3.1, there are 9675 UTAR undergraduate students in Kampar. Therefore, this study requires 370 minimum respondents.

Table 3.1:

Population of undergraduate students in UTAR, Kampar

Faculty	Undergraduate students	% of overall students	Number of respondents
Faculty Business and Finance (FBF)	4331	44.76%	166
Faculty of Arts and Social Science (FAS)	1682	17.39%	64
Faculty of Information and Communication Technology (FICT)	1428	14.76%	55
Faculty of Science (FSc)	1336	13.81%	51
Faculty of Engineering and Green Technology (FEGT)	668	6.90%	26
Institute of Chinese Studies (ICS)	230	2.38%	9
Total	9675	100%	371

3.4 Research Instrument

3.4.1 Questionnaire

The research instrument used to gather the primary data from the undergraduate students in UTAR Kampar is the questionnaire. According to Wilkinson and Birmingham (2003), the questionnaire is the preferred tool for those who engage in research. It is a cheaper and more effective way to get large quantities of data from various respondents. Since fixed-alternative questions are employed in the questionnaire of this study, the respondents must make choices based on their viewpoint among a set of options (Sekaran and Bougie, 2013). In this study, the questionnaires are distributed online by using Google form. The online survey was also used by Choshaly (2017), Iyer et al. (2016) and Chen and Deng (2016) to study factors affecting green purchase intention.

In this study, this survey questionnaire consists of a cover layout and three sections. Section A is constructed to obtain target respondents' personal background details. There are five demographic questions in this study, which are related to gender, age, ethnicity, current year of study and faculty. While Section B comprises 25 questions that are related to the factors (attitude towards green products, subjective norm, perceived behavioural control, environmental concern, and environmental knowledge) that affect the willingness to pay for green products. In Section C, five questions are constructed to measure their willingness to pay for green products.

In Section B and C, all constructs are measured by five-point Likert scales. Babakus and Mangold (1992) believed that five-point Likert scales reduce the frustration level while answering the questionnaire. Therefore, the scales increase the quality of the data and improve the response rates from the target respondents.

According to Johns (2010), five-point Likert scales fulfil the condition of providing enough choices while at the same time making things manageable for the participants. For instance, Ha and Janda (2012) used five-point Likert scales to collect data on the consumers' attitudes toward environmental issues. In addition, Yazdanpanah and Forouzani (2015) also employed five-point Likert scales to obtain the data of attitude and subjective norm toward green products.

3.4.2 Pre-Test

Prior to distributing the questionnaire to the undergraduate students in UTAR Kampar Campus, the questionnaire has been reviewed by two Universiti Tunku Abdul Rahman's lecturers.

3.4.3 Pilot Test

It is a must to make sure that the scales applied in a study use clear and appropriate language, and there are no obvious errors or omissions during constructing a new scale (Johanson & Brooks, 2010). Therefore, the pilot test is always recommended to estimate the response rate and the feasibility of a study. A pilot test is a small test that is conducted before the full-scale test is carried out. The data is gathered from a small part of the target respondents to identify the possible problems and check the viability of the study (Zikmund, 2003). Hence, before collecting the data from all the target respondents, a pilot test is carried out because it measures the reliability and accuracy of the questionnaire. By conducting the pilot test, the quality of the questionnaire is improved. If the results of the pilot test are not ideal, some adjustments can be made before the questionnaire is used in a full-scale study. In this study, the pilot study was

conducted for five days from 11 March 2020 to 15 March 2020. 30 sets of questionnaires were given to the undergraduate students from different faculties (FBF, FAS, FSc, FEGT, FICT, and ICS) in UTAR Kampar Campus. This is because a sample size of 30 respondents for a pilot test was recommended by Johanson and Brooks (2010). The library and canteens of UTAR were selected as the target place to collect the primary data from the undergraduate students. All the collected data were processed through the SPSS 26.0 software to check and measure the questionnaires' reliability.

3.5 Constructs Measurement (Scale and Operational Definitions)

Construct measurement is the area that receives much attention from researchers (Boyd, Bergh, Ireland & Ketchen, 2013). In this study, construct measurement is vital to maintain the validity of the results and findings.

3.5.1 Scale of Measurement

Measurement means the allocation of symbols such as numerical symbols to characteristics of the object based on pre-specified regulations (Sekaran & Bougie, 2013). The variables were categorized and quantified to be measured by using the scale of measurement. The three scales of measurement used in this study are the nominal scale, ordinal scale and interval scale.

3.5.1.1 Nominal Scale

A nominal scale lets researchers allocate the subjects to certain groups or categories (Sekaran & Bougie, 2013). A nominal scale gives a value to an object to enable categorization. No quantity is represented by the scale so the value does not necessarily have to be a number. By using a nominal scale, the data is categorized into different sets in which no ranking is implied. This scale is used in Section A. According to Forthofer, Lee and Hernandez (2007), a nominal scale can be used to measure gender. Therefore, in this study, the nominal scale has been used to indicate gender as below.

Example of nominal scale:

Your gender: ( ) Male ( ) Female

3.5.1.2 Ordinal Scale

An ordinal scale is more complex than a nominal scale (MacKenzie, 2013). An ordinal scale can not only be used for categorization of the data but also providing the ranking to the data (Mistrik, Soley, Ali, Grundy & Tekinerdogan, 2016). However, an ordinal scale contains little to no detail on how much the two measurement points are different from each other (Mistrik et al., 2016). In other words, an ordinal scale does not have an equal interval between two consecutive measurement points (MacKenzie, 2013). This scale is used in Section A. According to Forthofer et al. (2007), an ordinal scale can be used to measure age group. Thus, the ordinal scale has been used in this study to indicate the age group as below.

Example of ordinal scale:

Your age: ( ) 18-21 ( ) 22-25 ( ) 26-29

3.5.1.3 Interval Scale

For an interval scale, there is an order among the measurements. There is also a meaningful difference between measurements (Sekaran & Bougie, 2013). This means that even though an interval scale contains the attributes of the nominal and ordinal scales, interval scale is different from them because it contains the information about the differences in quantities of between measurement points. This scale is employed in Section B and C. According to Joshi, Kale, Chandel & Pal (2015), Likert scale is categorized as an interval scale. Therefore, in this study, the Likert scale has been utilized to ask the questions related to the independent variables and dependent variable as below.

Example of interval scale:

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Between green and conventional products, I prefer green one.	1	2	3	4	5

3.5.2 Origin of Construct

Table 3.2:

Summary of Measures used for Present Study

Variables	Adapted from	Items	Cronbach's alpha from previous studies	Scale
Dependant Variable: Willingness to pay for green products	Mamun, Fazal, et al. (2018)	5 items	0.980	Strongly disagree (1) to Strongly agree (5)
Independent variable 1: Attitude towards green products	Mamun, Mohamad, et al. (2018)	4 items	0.960	Strongly disagree (1) to Strongly agree (5)
	Chen et al. (2018)	1 item	0.920	
Independent variable 2: Subjective norm	Onel (2017)	4 items	0.842	Strongly disagree (1) to Strongly agree (5)
	Nguyen et al. (2016)	1 item	0.831	
Independent	Paul et al. (2016)	5 items	0.819	Strongly

variable 3: Perceived behavioural control				disagree (1) to Strongly agree (5)
Independent variable 4: Environmental concern	Onurlubaş (2018)	4 items	0.812	Strongly disagree (1) to Strongly agree (5)
	Chaudhary and Bisai (2018)	1 item	0.770	
Independent variable 5: Environmental knowledge	Sharaf and Isa (2017)	5 items	0.74	Strongly disagree (1) to Strongly agree (5)

3.5.3 Measurement of Independent Variables and Dependent Variable: Operational Definition

Five factors affecting willingness to pay for green products are chosen in this study, namely attitude towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge. The five-point Likert scale is used for all the items. On the five-point Likert scale, one means “Strongly Disagree” and five means “Strongly Agree”.

3.5.3.1 Willingness to pay for green products

Willingness to pay for green products measures the degree of the consumers' readiness to pay extra money to obtain green products (Khoiriyah & Toro, 2018). In particular, willingness to pay can represent a type of green purchase intention so the Theory of Planned Behaviour can be used (Mamun, Fazal, et al., 2018).

Willingness to pay for green products is measured by using 5 items. The scale is adopted from Mamun, Fazal, et al. (2018). The sample items include "*I would pay extra for green products even if it had a less-appealing design*", "*The probability that I will pay extra to buy green products is very high*" and "*I intend to pay more for green products*".

3.5.3.2 Attitude towards green products

Attitude towards green products means how positively or negatively people assess the performance of green products (Mamun, Mohamad, et al., 2018).

Attitude towards green products is measured by employing four items which are adapted from Mamun, Mohamad, et al. (2018). Some sample items are "*Between green and conventional products, I prefer green one*", "*I think that purchasing green products is favourable*" and "*I think that purchasing green products is a good idea*".

3.5.3.3 Subjective norm

Subjective norm means the beliefs about whether a majority agrees with a particular behaviour (Arli et al., 2018). In this case, the behaviour means buying green products. In addition, the subjective norm may be caused by people who are important to the consumers such as family and friends (Arli et al.,2018).

Subjective norm is measured by using four items. These items are adapted from Onel (2017). Sample items include "*Most people who are important to me think that I should purchase green products*", "*Most people who are important to me would approve of my decision to purchase green products*" and, "*My family members think I ought to be purchasing green products*".

3.5.3.4 Perceived behavioural control

Perceived behavioural control means the belief of whether carrying out an action is difficult or easy (Arli et al., 2018). This variable will be varied based on the availability, price and purchasing power (Teng et al., 2018).

Perceived behavioural control is measured by using five items. These items are adapted from Paul et al. (2016). The sample items cover "*I see myself as capable of purchasing green products in future*", "*Green products are generally available in the shops where I usually do my shopping*" and "*I have resources to purchase green products*".

3.5.3.5 Environmental Concern

Environmental concern means the level of individuals' consciousness of environmental problems and their support of attempts to find a solution to these issues or their preparedness to contribute personally to resolve these issues (Ahmad & Thyagaraj, 2015). It also shows how much a person is emotionally involved in environmental problems (Lasuin & Ching, 2014).

Environmental concern is measured by utilizing five items. It is selected and adapted from Onurlubaş (2018). Some sample items include "*Environmental (natural) pollution is one of my future concerns*", "*Humankind should live in harmony with the nature, so that they can continue their lives*" and "*I would be willing to reduce my consumption to help protect the environment*".

3.5.3.6 Environmental Knowledge

Environmental knowledge means the essential understanding of the truths, ideas and relationships about the natural surroundings and its vital ecosystems (Goh & Balaji, 2016). Knowledge of green products is also considered as environmental knowledge (Erdil, 2018).

Environmental knowledge is measured by using five items which are adapted from Sharaf and Isa (2017). The sample items for environmental knowledge are "*I know more about green products than the average person*", "*I know how to select products that reduce the amount of waste*" and "*I understand the environmental phrases and symbols on product packages*".

3.5.4 Questionnaires Designing

The questionnaires contain three parts which are Section A, B and C. Section A is associated with demographic variables. Hence, the personal information of targeted respondents is collected in this section. There is a sum of five questions in Section A. Gender, ethnicity, and faculty are measured by the nominal scale, whereas age and year of study are measured by the ordinal scale.

In Section B, there are 25 questions related to the determinants selected which are attitude towards green products, subjective norm, perceived behavioural control, environmental concern, and environmental knowledge. In this part, an interval scale is applied as the scale of measurement and the Likert Scale is employed to design the questions. The respondents need to choose from the range from 1 to 5 to show their perception. In the questionnaire, 1 indicates “Strongly Disagree”, 2 indicates “Disagree”, 3 indicates “Neutral”, 4 indicates “Agree” and 5 indicates “Strongly Agree”.

In Section C, there are five questions for the dependent variable, which is the willingness to pay for green products. The Likert scale, which is an interval scale, was utilized as the scale of measurement. The scale ranges from 1 to 5. Similar to Section B, 1 indicates “Strongly Disagree”, 2 indicates “Disagree”, 3 indicates “Neutral”, 4 indicates “Agree” and 5 indicates “Strongly Agree”. After gathering the data by using the questionnaire, SPSS 26.0 software is used to explain the reliability of the questionnaires.

3.6 Data Processing

Data processing is the process to change primary data into useful information. Based on Kveder and Galico (2008), checking, editing, coding and transcribing represent the main steps for data processing. Data processing is done after the responses are collected from the respondents. Much focus and carefulness are needed during data processing to keep the data away from any error. In a nutshell, by doing data processing, raw data is changed into information. Data processing can be done through certain computer software such as SPSS 26.0 which is utilized in the study.

3.6.1 Data Checking

First, data checking is carried out. This ensures that all the questionnaires are valid. The questionnaires may be invalid due to errors such as the omission of data, missing data, and inconsistent responses. This situation is minimized through data checking. Carrying out a pilot test can detect these errors. After that, changes and amendment on the questionnaires can be made to improve reliability. Besides, it is the duty of the researchers to make sure that the collected data from the questionnaires are answered completely and correctly (Sekaran & Bougie, 2009). In a nutshell, data checking is the process of getting more compatible and more accurate data (Zikmund et al., 2013).

3.6.2 Data Editing

Data editing is the next step after data checking. In this process, checking, adjusting or editing the missing answer or inconsistent responses from the target respondents are done. Data editing assists in decreasing the unsatisfactory answers. When incomplete responses are found, the missing data is edited by the researchers by imitating the answering pattern of the respondents. This enhances the consistency of the data. In other words, to ensure that the results are consistent, the data needs to be edited (Sekaran and Bougie, 2009).

3.6.3 Data Coding

Subsequently, data coding is performed. Data coding involves applying numerical codes to the responses of the targeted respondents. Then, these numerical codes are entered into SPSS 26.0. The responses are assigned a code from 1 to 5 while the missing value will be assigned a code of 99. To summarize, data coding means categorizing all the data edited into numerical numbers or any others symbols (Sekaran & Bougie, 2009).

For Section A, the answer to each question is coded as below:

Q1	Gender	"Male" = 1 "Female" = 2
Q2	Age	"18-21" = 1 "22-25" = 2 "26-29" = 3
Q3	Ethnic	"Malay" = 1

		"Chinese" = 2 "Indian" = 3 "Others" = 4
Q4	Current year of study	"Year 1" = 1 "Year 2" = 2 "Year 3" = 3 "Others" = 4
Q5	Faculty	"Faculty of Arts and Social Science (FAS)" = 1 "Faculty of Business and Finance (FBF)" = 2 "Faculty of Engineering and Green Technology (FEGT)" = 3 "Faculty of Information and Communication Technology (FICT)" = 4 "Faculty of Science (FSc)" = 5 "Institute of Chinese Studies (ICS)" = 6

In Section B, the answer to each question is coded with the 5- point Likert scale as below:

- "Strongly Disagree (SD)" is coded as 1

- "Disagree (D)" is coded as 2

- "Neutral (N)" is coded as 3

- "Agree (A)" is coded as 4

- "Strongly Agree (SA) is coded as 5

3.6.4 Data Transcribing

Lastly, data transcribing is performed. By transcribing data, the raw data is changed into practical information. Throughout the data processing, SPSS 26.0 is employed.

3.7 Data Analysis

Following the data processing, the data is examined to see whether the hypotheses constructed in this study are accepted or rejected (Sekaran & Bougie, 2016). This process helps answer the proposed research questions (Sekaran & Bougie, 2016). In this study, data is analysed by utilizing statistical software called SPSS 26.0. This software was used by Hossain and Lim (2016) in their empirical study. This software is used for performing various data analyses, namely descriptive analysis, reliability test, multicollinearity test, normality test and also inferential analysis.

3.7.1 Descriptive Analysis

The first analysis carried out is descriptive analysis. According to Zikmund et al. (2013), the descriptive analysis represents the most fundamental data analysis. It is defined as any statistical method that summarizes the collected data so that the data can be comprehended in an easier way (Aldrich, 2019). The descriptive analysis involves generating tables for the measures of central tendency, measures of dispersion and shape of the distribution (Aldrich, 2019). Besides, the descriptive analysis also includes frequency statistics (Larson, 2006). In this study, tables detailing mean, standard deviation, frequency and percentage of the data are created. Besides tables, pie graphs are also generated for data obtained from Section A.

3.7.2 Scale Measurement

3.7.2.1 Reliability Test

Then, to identify whether the scale is reliable, the reliability test is used. If the scales are reliable, they are independent of random error (Pallant, 2013). Therefore, it is important to use reliable scales. One of the main indicators of reliability is internal consistency. It means how much the items that form a scale are all assessing the identical underlying trait (Pallant, 2013). Usually, internal consistency is determined by using Cronbach's alpha coefficient (Pallant, 2013). It estimates the mean correlation among the items within a scale (Pallant, 2013). It is always between zero and one. A higher number means that the reliability is higher (Pallant, 2013).

Table 3.3

Cronbach's Alpha Rule of Thumb

Cronbach's Alpha	Level of Reliability
$\alpha < 0.6$	Poor
$0.6 \leq \alpha < 0.7$	Fair
$0.7 \leq \alpha < 0.8$	Good
$0.8 \leq \alpha \leq 0.95$	Excellent

Source: Zikmund, Babin, Carr and Griffin, 2010

As shown in Table 3.3, the scales have poor reliability when the value of Cronbach's alpha is below 0.6. Then, the reliability of the scales is fair when it is more than or equal to 0.6 but less than 0.7. Next, the scales have good reliability when the Cronbach's alpha is greater or equal to 0.7 but less than 0.8. Lastly, the scales are considered to have excellent reliability when the Cronbach's alpha is above 0.8 but below 0.95. Therefore, to ensure the reliability of a scale, the Cronbach's alpha should be above 0.6.

Table 3.4

Results of Reliability Test for Pilot Test

Variables	Cronbach's alpha	Reliability
Dependant Variable: Willingness to pay for green products	0.931	Excellent
Independent variable 1: Attitude towards green products	0.741	Good
Independent variable 2: Subjective norm	0.727	Good
Independent variable 3: Perceived behavioural control	0.795	Good
Independent variable 4: Environmental concern	0.647	Fair
Independent variable 5: Environmental knowledge	0.778	Good

Table 3.4 shows the results of the reliability test for the pilot test. The highest Cronbach's alpha value, which is 0.931, belongs to the scales of willingness to pay for green products. Meanwhile, the Cronbach's alpha value of environmental concern, which amounts to 0.647, is the lowest. As the Cronbach's alpha values for all the variables are larger than 0.6, all the scales are reliable.

3.7.3 Preliminary Data Screening

3.7.3.1 Multicollinearity

The first preliminary data screening that is done is detecting multicollinearity. Multicollinearity means that the correlation between independent variables is high (Sekaran & Bougie, 2016). When independent variables are highly correlated, the value of the error term will increase (Abdulwahab, Zulkhairi & Galadima, 2011). As a consequence, the results of the regression analysis are not reliable anymore (Sekaran & Bougie, 2016). Therefore, this serious problem is detected before the regression is conducted. Two calculations are used to detect multicollinearity problem.

First, the variance inflation factor is calculated by using SPSS. A variance inflation factor that is greater than 10 signals that there is high multicollinearity. Secondly, tolerance value is also calculated by using SPSS (Sekaran & Bougie, 2016). A tolerance value that is less than 0.1 also means that there is high multicollinearity (Sekaran & Bougie, 2016).

3.7.3.2 Normality

The next preliminary data screening is to conduct the normality tests. The assumption of normality is necessary to be fulfilled before doing a lot of inferential statistical techniques (Coakes & Ong, 2011). This is because when data does not have a normal distribution, precise and dependable results which enables us to draw a conclusion about the population parameters cannot be obtained

(Ghasemi & Zahediasl, 2012). Therefore, tests are carried out to determine whether the distribution of data is normal or not.

The first method to test the normality assumption is to look at skewness and kurtosis. According to Kim (2013), if the number of respondents is more than 300, a combination of skewness value between -2 and +2 and kurtosis value between -7 and +7 show the normality of the data.

The second method to test the normality of data is to look at the histogram. If the data distribution is normal, it means that the shape of the histogram is symmetrical and bell-shaped (Pallant, 2013). Furthermore, the frequency of the curve is highest in the middle and becomes smaller as it moves to both extremes (Pallant, 2013).

The third method is the normal probability plot. Under this method, the observed values are on the X-axis while the expected values in case of the normal distribution are on the Y-axis (Pallant, 2013). If the pattern of the graph is somehow a straight line, then it implies normal distribution (Pallant, 2013).

3.7.4 Inferential Analysis

The most important data analysis is inferential analysis. In this step, the sample data collected is employed to draw inferences about the population (Aldrich, 2019). This also means that the sample statistics computed in a study are used to estimate the unknown population parameters. Therefore, by using the sample data of 371 students from different faculties in UTAR Kampar Campus, it is possible to understand the willingness to pay for green products among all undergraduate students in UTAR. In this study, an inferential analysis called the multiple linear

regression analysis is used to examine the relationship between the dependent variable, which is the willingness to pay for green products and independent variables, which are attitude towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge.

3.7.4.1 Multiple Linear Regression Analysis

Multiple linear regression is employed when there is only one dependent variable but the number of independent variables is more than one (Aldrich, 2019). Therefore, this method can be employed in this study because there are five factors that are chosen in this study. This method was employed by Choshaly (2017) and Mei et al. (2012) to study the green purchase intention.

After running the regression, the model will be evaluated based on the Model Summary table, ANOVA table and Coefficients table. In the Model Summary table, R square is analysed (Pallant, 2013). It measures how much of the variation in the dependent variable is affected by the independent variables (Pallant, 2013). Besides, the ANOVA table is used to know whether the model significantly explains changes in the dependent variable by looking at F-statistic (Pallant, 2013). If the p-value of the F-statistic is below 0.1, then the model can significantly explain the dependent variable (Pallant, 2013). Lastly, the Coefficients table is employed to study the influence of each independent variable on the dependent variable. If the p-value is not more than 0.1, the independent variable is significantly related to the dependent variable.

The equation for the multiple linear regression is

$$WTP_i = \beta_0 + \beta_1 ATT_i + \beta_2 SN_i + \beta_3 PBC_i + \beta_4 EC_i + \beta_5 EK_i + \mu_i$$

Where WTP_i = Willingness to pay for green products

ATT_i = Attitude towards green products

SN_i = Subjective norm

PBC_i = Perceived behavioural control

EC_i = Environmental concern

EK_i = Environmental knowledge

μ_i = error term

The multiple linear regression analysis will be conducted based on the equation above. It is hypothesized that all independent variables, which are on the right-hand side of the equation, significantly influence the dependent variable, which is on the left-hand side as discussed in the hypothesis development in chapter two.

3.8 Conclusion

In summary, chapter three talks about how this study is conducted. This study is a quantitative research. Pre-test and pilot test were carried out before the real test. During the real test, primary data is collected by giving questionnaires to 371 undergraduate students from all faculties in UTAR Kampar Campus. After collecting enough questionnaires, the data is processed. Then, the data is analysed based on both descriptive and inferential analysis.

CHAPTER 4: RESEARCH RESULTS

4.0 Introduction

In this chapter, data analysis is performed. First, the descriptive analysis is performed. Secondly, the reliability test is done to make sure that the scales are reliable. Thirdly, preliminary data screening is carried out by checking whether there are multicollinearity and non-normality problems. Lastly, Multiple Linear Regression Analysis is conducted. All of these analyses are done by using SPSS 26.0.

4.1 Descriptive Analysis

First, the descriptive analysis is performed so that the data could be understood easily. First, the descriptive analysis is done on the demographic data gathered in Section A of the survey questionnaire. Secondly, the data from Section B and C also goes through descriptive analysis. In the following analysis, tables and pie charts are generated to summarize the data.

4.1.1 Respondents' Demographic Profile

This study involves five categories of demographic data which are gender, age group, ethnicity, current year of study and also faculty. They are analysed one by one in the following sections.

4.1.1.1 Gender

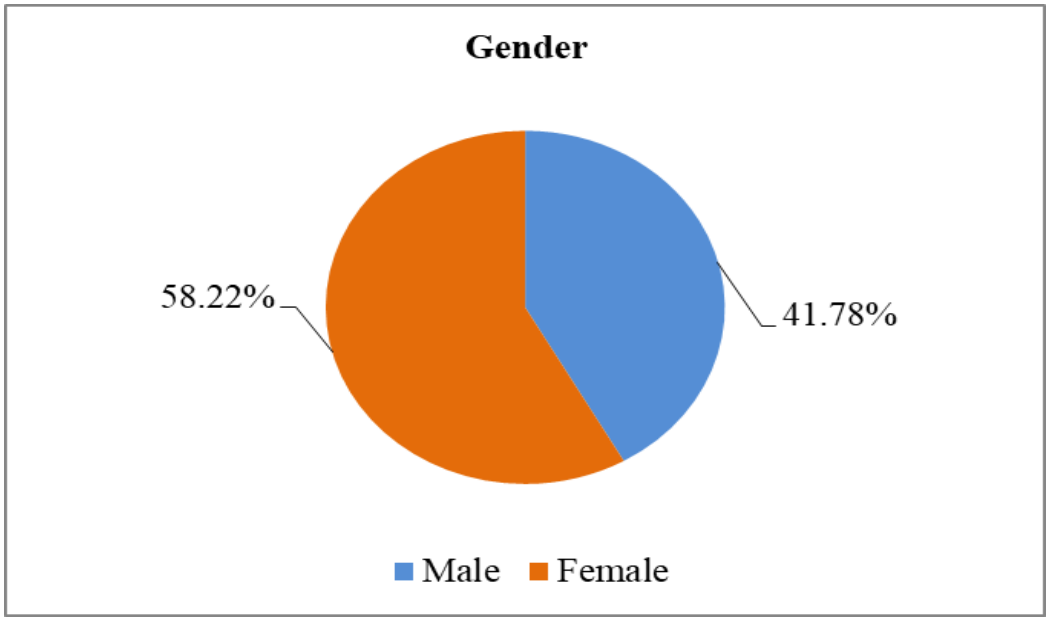
Table 4.1

Descriptive Analysis for Gender

Gender	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Male	155	41.78	155	41.78
Female	216	58.22	371	100.00

Figure 4.1

Descriptive Analysis for Gender



First of all, the respondents are grouped according to their gender. Table 4.1 indicates that 371 undergraduate students participated in the survey. Then, based on both Table 4.1 and Figure 4.1, 58.22% (216 respondents) of them are male while 41.78% (155 respondents) of them are female. Therefore, there are more female participants compared to male ones.

4.1.1.2 Age Group

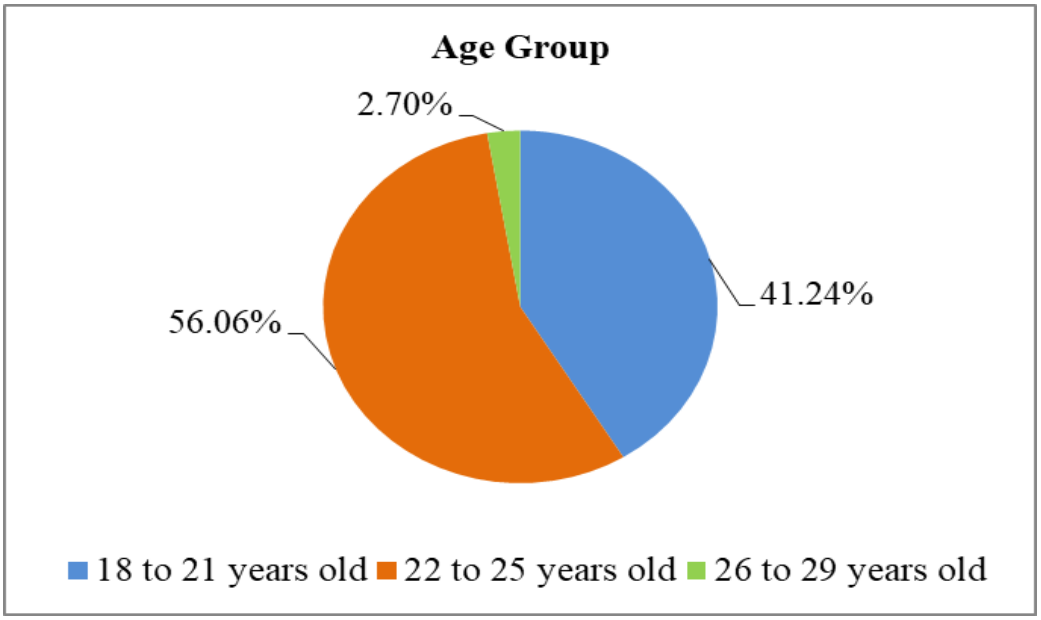
Table 4.2

Descriptive Analysis for Age Group

Age Group	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
18 to 21 years old	153	41.24	153	41.24
22 to 25 years old	208	56.06	361	97.30
26 to 29 years old	10	2.70	371	100.00

Figure 4.2

Descriptive Analysis for Age Group



Other than gender, the respondents are also grouped according to the age groups in which they belong to. Based on Table 4.2 and Figure 4.2, 56.06% (208 respondents) of the participants are from 22 to 25 years old. Then, 41.24% (153 respondents) of the participants are from 18 to 21 years old. Lastly, only 2.70% (10 respondents) of the participants are from 26 to 29 years old.

4.1.1.3 Ethnicity

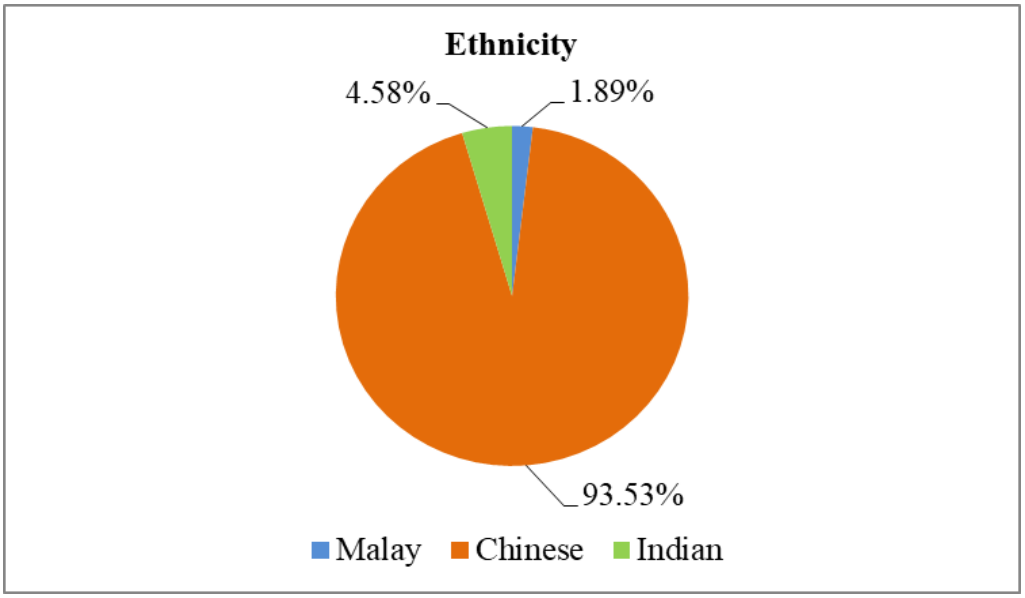
Table 4.3

Descriptive Analysis for Ethnicity

Ethnicity	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Malay	7	1.89	7	1.89
Chinese	347	93.53	354	95.42
Indian	17	4.58	371	100.00

Figure 4.3

Descriptive Analysis for Ethnicity



The third category is ethnicity. According to Table 4.3 and Figure 4.3, there are three types of ethnicity for the participants. Most of the respondents are Chinese because they account for 93.53% (347 respondents) of the total participants. 4.58% (17 respondents) of the respondents are Indians. The least number of respondents are Malays because they only account for 1.89% (7 respondents).

4.1.1.4 Current Year of Study

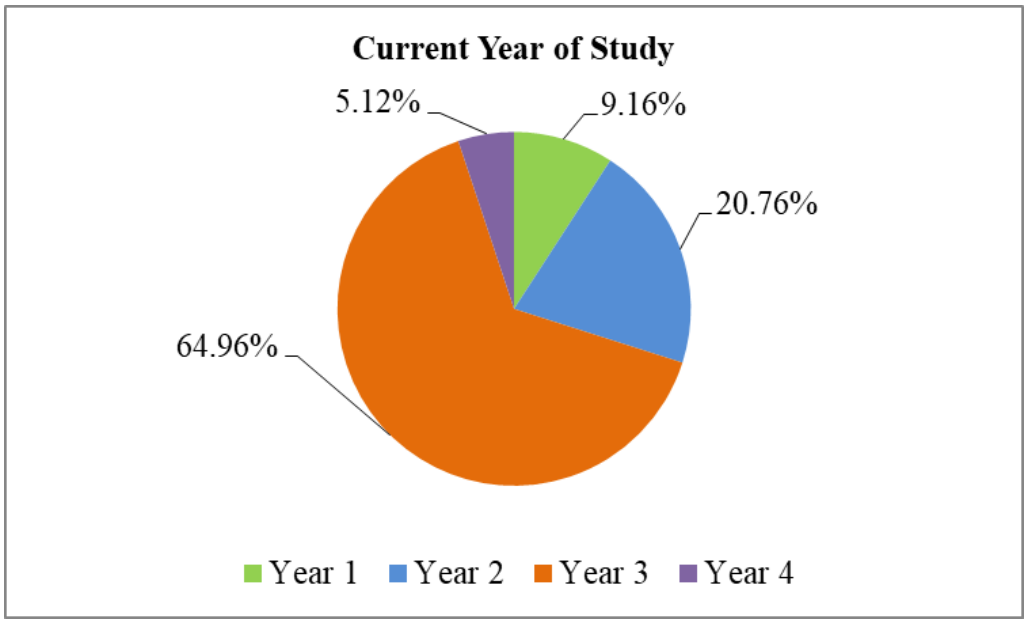
Table 4.4

Descriptive Analysis for Current Year of Study

Current year of study	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Year 1	34	9.16	34	9.16
Year 2	77	20.76	111	29.92
Year 3	241	64.96	352	94.88
Year 4	19	5.12	371	100.00

Figure 4.4

Descriptive Analysis for Current Year of Study



Fourthly, the respondents are also categorized by their current year of study. Based on Table 4.4 and Figure 4.4, 64.96% (241 respondents) of them are Year 3 students. Then, 20.76% (77 respondents) of them are Year 2 students. Next, 9.16% (34 respondents) of them are from Year 1. The least number of respondents are

Year 4 students as they only account for 5.12% (19 respondents) of the total participants.

4.1.1.5 Faculty

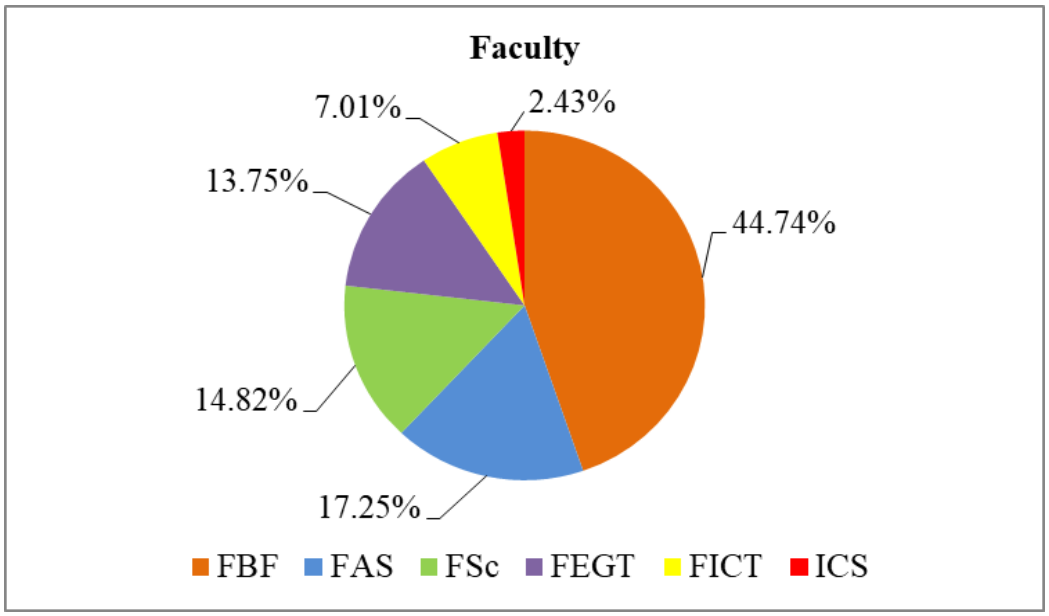
Table 4.5

Descriptive Analysis for Faculty

Faculty	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Faculty Business and Finance (FBF)	166	44.76	166	44.76
Faculty of Arts and Social Science (FAS)	64	17.39	230	62.15
Faculty of Information and Communication Technology (FICT)	55	14.76	285	76.91
Faculty of Science (FSc)	51	13.81	336	90.72
Faculty of Engineering and Green Technology (FEGT)	26	6.90	362	97.62
Institute of Chinese Studies (ICS)	9	2.38	371	100.00

Figure 4.5

Descriptive Analysis for Age Group



Lastly, the respondents are also grouped by their faculties. According to Table 4.5 and Figure 4.5, most of the participants, which are 44.74% (166 respondents), are from the Faculty of Business and Finance (FBF). Then, 17.25% (64 respondents) of them are from the Faculty of Arts and Social Science (FAS). Next, 14.82% (55 respondents) are from the Faculty of Information and Communication Technology (FICT). Furthermore, 13.75% (51 respondents) of them are from the Faculty of Science (FSc). In addition, 7.01% (26 respondents) of them are from the Faculty of Engineering and Green Technology (FEGT). The least number of respondents come from the Institute of Chinese Studies (ICS) as there are only 2.43% (9 respondents) of them from this faculty.

4.1.2 Central Tendencies and Dispersion Measurement of Constructs

For the next section, the responses for the questions related to the dependent variables and the independent variables collected in Section B and Section C are

examined. The analyses performed include one of the measures of central tendency, which is the mean, and one of the measures of dispersion, which is the standard deviation. The analysis is done one by one for each variable.

4.1.2.1 Willingness to Pay for Green Products

Table 4.6

Central Tendencies Measurement of Willingness to Pay for Green Products

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
WTP1	I would pay extra for green products even if it had a less-appealing design.	371	3.590	0.944	4	1
WTP2	The probability that I will pay extra to buy green products is very high.	371	3.501	0.922	5	2
WTP3	When I replace any household appliance, I am willing to pay extra to purchase green one.	371	3.682	0.829	1	5
WTP4	Compared with	371	3.644	0.893	3	4

	ordinary non-green products, I am more willing to pay extra to buy green products.					
WTP5	I intend to pay more for green products.	371	3.652	0.913	2	3

First, the questions related to willingness to pay for green products are examined. According to Table 4.6, WTP3 has the largest mean of 3.682. However, it also has the smallest standard deviation of 0.829. The second-largest mean of 3.652 belongs to WTP5 and it has a standard deviation of 0.913. Then, the third-largest mean which is 3.644 belongs to WTP4 and it has a standard deviation of 0.893. Although WTP1 obtains the fourth-largest mean of 3.590, it has the largest standard deviation of 0.944. Lastly, WTP2 obtains the smallest mean which is 3.501 and a standard deviation of 0.922.

4.1.2.2 Attitude towards Green Products

Table 4.7

Central Tendencies Measurement of Attitude towards Green Products

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
ATT1	Between green and conventional	371	4.083	0.725	4	3

	products, I prefer green one.					
ATT2	I think that purchasing green products is favourable.	371	4.081	0.784	5	1
ATT3	I think that purchasing green products is a good idea.	371	4.364	0.713	2	4
ATT4	I think that purchasing green products is safe.	371	4.283	0.777	3	2
ATT5	I think green products that can reduce environmental damage are important.	371	4.598	0.618	1	5

Secondly, the questions related to attitude towards green products are analysed. According to Table 4.7, ATT5 owns the largest mean of 4.598. However, it also has the smallest standard deviation of 0.618. The question with the second-largest mean, which is 4.364, is ATT3, and it owns a standard deviation of 0.713. Next, the third-largest mean of 4.283 belongs to ATT4 and it has a standard deviation of 0.777. Then, ATT1 possesses the fourth-largest mean of 4.083 and it also possesses a standard deviation of 0.725. Lastly, the smallest mean which 4.081 belongs to ATT2. However, ATT2 has the largest standard deviation which is 0.784.

4.1.2.3 Subjective Norm

Table 4.8

Central Tendencies Measurement of Subjective Norm

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
SN1	Most people who are important to me think that I should purchase green products.	371	3.566	0.920	5	3
SN2	Most people who are important to me would approve of my decision to purchase green products.	371	3.890	0.839	2	4
SN3	Most people who are important to me would support me purchasing green products.	371	3.914	0.817	1	5
SN4	My family members think I ought to be purchasing green products.	371	3.642	0.946	3	2

SN5	My friends think I ought to be purchasing green products.	371	3.577	0.957	4	1

The third variable examined is the subjective norm. According to Table 4.8, SN3 owns the largest mean of 3.914. However, it also owns the smallest standard deviation of 0.817. Next, the second-largest mean which is 3.890 belongs to SN2 and it has a standard deviation of 0.839. The third-largest mean, which is 3.642, belongs to SN4 and it has a standard deviation of 0.946. Then, SN5 possesses the fourth-largest mean of 3.577. However, SN5 possesses the largest standard deviation of 0.957. Lastly, SN1 has the smallest mean which is 3.566 and a standard deviation of 0.920.

4.1.2.4 Perceived Behavioural Control

Table 4.9

Central Tendencies Measurement of Perceived Behavioural Control

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
PBC1	I believe I have the ability to purchase green products.	371	3.957	0.837	2	4
PBC2	I see myself as capable of purchasing	371	4.156	0.730	1	5

	green products in future.					
PBC3	I have resources to purchase green products.	371	3.768	0.933	4	2
PBC4	I have time to purchase green products.	371	3.836	0.896	3	3
PBC5	Green products are generally available in the shops where I usually do my shopping.	371	3.609	1.019	5	1

Fourthly, the questions concerning perceived behavioural control are analysed. According to Table 4.9, PBC2 owns the largest mean of 4.156. However, it owns the smallest standard deviation of 0.730. Then, the second-largest mean of 3.957 belongs to PBC1 and it has a standard deviation of 0.837. Furthermore, the third-largest mean of 3.836 belongs to PBC4 and it has a standard deviation of 0.896. Subsequently, the question which has the fourth-largest mean of 3.768 is PBC3 and it owns a standard deviation of 0.933. Lastly, despite having the smallest mean of 3.609, PBC5 owns the largest standard deviation of 1.019.

4.1.2.5 Environmental Concern

Table 4.10

Central Tendencies Measurement of Environmental Concern

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
EC1	Environmental (natural) pollution is one of my future concerns.	371	4.307	0.744	4	4
EC2	Humankind should live in harmony with the nature, so that they can continue their lives.	371	4.429	0.695	1	5
EC3	I would be willing to reduce my consumption to help protect the environment.	371	4.237	0.766	5	1
EC4	I am concerned about the polluted air's effects on me and my family.	371	4.356	0.752	2	3
EC5	I am concerned about the world's current natural	371	4.329	0.753	3	2

	(environmental) situation.					

The fifth variable analysed is environmental concern. According to Table 4.10, EC2 owns the largest mean of 4.429. However, it also owns the smallest standard deviation of 0.695. Then, the second-largest mean of 4.356 belongs to EC4 and it has a standard deviation of 0.752. Next, the third-largest mean of 4.329 belongs to EC5 and it has a standard deviation of 0.753. Subsequently, the question which has the fourth-largest mean of 4.307 is EC1 and it has a standard deviation of 0.744. Lastly, despite owning the smallest mean of 4.237, EC3 owns the largest standard deviation of 0.766.

4.1.2.6 Environmental Knowledge

Table 4.11

Central Tendencies Measurement of Environmental Knowledge

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
EK1	I know more about green products than the average person.	371	3.380	0.994	3	3
EK2	I know how to select products that reduce the amount of waste.	371	3.644	0.905	1	5
EK3	I understand the	371	3.590	0.932	2	4

	environmental phrases and symbols on product packages.					
EK4	I am very knowledgeable about green products.	371	3.291	1.022	4	2
EK5	I can give people advice about different brands of green products.	371	3.084	1.120	5	1

The last variable analysed is environmental knowledge. According to Table 4.11, EK2 owns the largest mean which is 3.644. However, it also owns the smallest standard deviation of 0.905. Next, the second-largest mean of 3.590 belongs to EK3 and it has a standard deviation of 0.932. Then, the third-largest mean of 3.380 belongs to EK1 and it has a standard deviation of 0.994. Subsequently, the question which has the fourth-largest mean of 3.291 is EK4 and it has a standard deviation of 1.022. Lastly, despite having the smallest mean which is 3.084, EK5 possesses the largest standard deviation which is 1.120.

4.2 Scale Measurement

4.2.1 Reliability Test

Table 4.12

Cronbach's Alpha Reliability Analysis

No.	Type of the Variable	Name of the Variable	Number of Items	Cronbach's Alpha	Reliability Test
1	Dependent Variable	Willingness to pay for green products	5	0.904	Excellent
2	Independent Variable	Attitude towards green products	5	0.795	Good
3	Independent Variable	Subjective norm	5	0.863	Excellent
4	Independent Variable	Perceived behavioural control	5	0.831	Excellent
5	Independent Variable	Environmental concern	5	0.849	Excellent
6	Independent Variable	Environmental knowledge	5	0.903	Excellent

Table 4.12 shows the values of Cronbach's alpha for each variable. From the table, independent variables such as subjective norm (0.863), perceived behaviour control (0.831), environmental concern (0.849) and environmental knowledge (0.903) have excellent reliability due to their high Cronbach's alpha exceeding 0.80. Cronbach's alpha of attitude towards green products (0.795) indicates that it

has good reliability because it is higher than 0.70 but lower than 0.80. For the dependent variable, the Cronbach's alpha is 0.904 so it has excellent reliability. In short, all the scales are highly reliable because the Cronbach's alpha of the independent variables and the dependent variable are both above 0.70. Therefore, all items are kept in the study.

4.3 Preliminary Data Screening

Before conducting inferential analysis, preliminary data analysis is performed to ensure that the results of this study are reliable. The two preliminary data analyses carried out are multicollinearity test and normality test.

4.3.1 Multicollinearity Test

Multicollinearity occurs when the correlation between independent variables is high (Sekaran & Bougie, 2016). If this problem exists in a model, this leads to a high error term so the results are unreliable. To detect the multicollinearity problem in this study, two methods that are used are the variance inflation factor (VIF) and tolerance value. If the VIF is more than 10 and the tolerance value is less than 0.1, there is a high multicollinearity problem (Sekaran & Bougie, 2016).

Table 4.13

Tolerance Value and Variance Inflation Factor (VIF)

Independent variables	Collinearity statistics	
	VIF	Tolerance
Attitude towards green products	1.649	0.606
Subjective norm	1.802	0.555
Perceived behavioural control	2.012	0.497
Environmental concern	1.454	0.688
Environmental knowledge	1.512	0.662

Based on Table 4.13, all independent variables have the VIF values of less than 10. Besides, their tolerance values are more than 0.1. Therefore, it is clear that the multicollinearity problem does not among the independent variables.

4.3.2 Normality Test

After conducting the multicollinearity test, normality tests are employed to examine the normality of the data. In this study, the normality of the data is determined based on three methods, which are skewness and kurtosis values, a histogram and also a normal Q-Q plot.

Table 4.14:

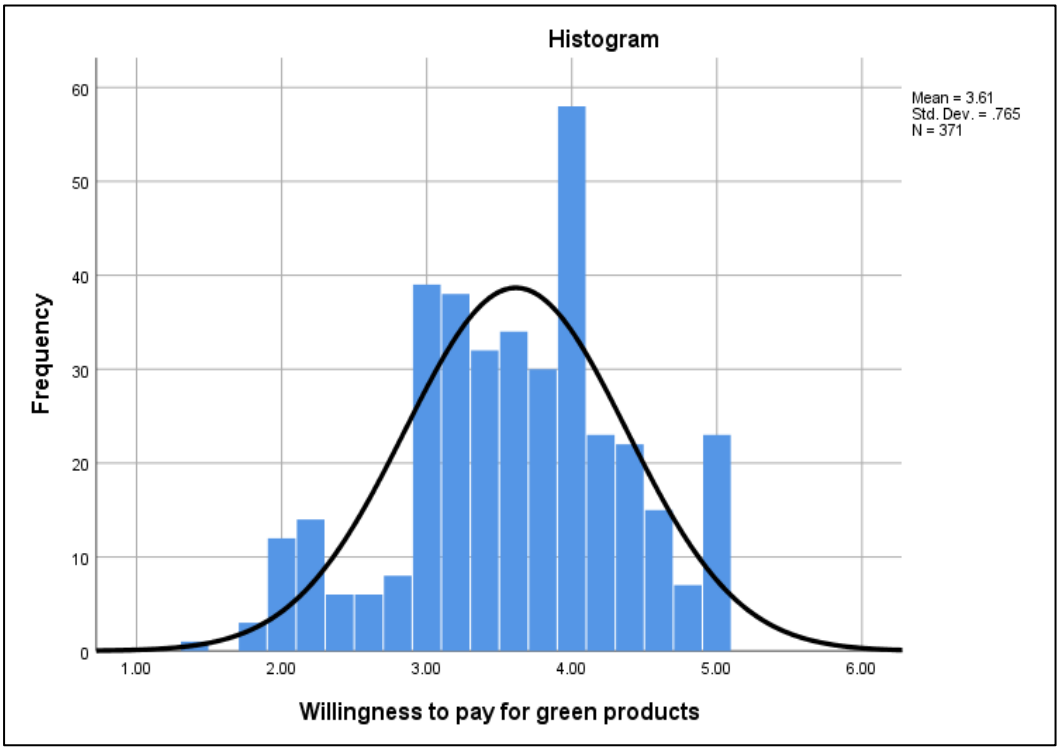
Normality Test Result

Variables	Skewness	Kurtosis
Dependent Variable: Willingness to pay for green products	(0.279)	(0.234)
Independent Variable 1: Attitude towards green products	(0.985)	2.024
Independent Variable 2: Subjective norm	(0.055)	(0.482)
Independent Variable 3: Perceived behavioural control	(0.266)	(0.084)
Independent Variable 4: Environmental concern	(1.123)	1.944
Independent Variable 5: Environmental knowledge	0.053	(0.620)

First of all, the normality of the data is determined by looking at the skewness and kurtosis of the data. When the sample size is bigger than 300, the data has a normal distribution if the value of skewness is between -2 and +2 and, at the same time, the value of kurtosis is between -7 and +7 (Kim, 2013). According to table 4.14, all the skewness values are between -2 and +2. Environmental knowledge has the highest skewness value which is 0.053 while environmental concern has the lowest skewness value which is -1.123. It is also observed that all kurtosis values are between -7 and +7. Attitude towards green products has the highest kurtosis value which is 2.024 while environmental knowledge has the lowest kurtosis value which is -0.620. Since all skewness values are between -2 and +2 and all kurtosis values are between -7 and +7, the data for all the variables are considered to be normally distributed.

Figure 4.6:

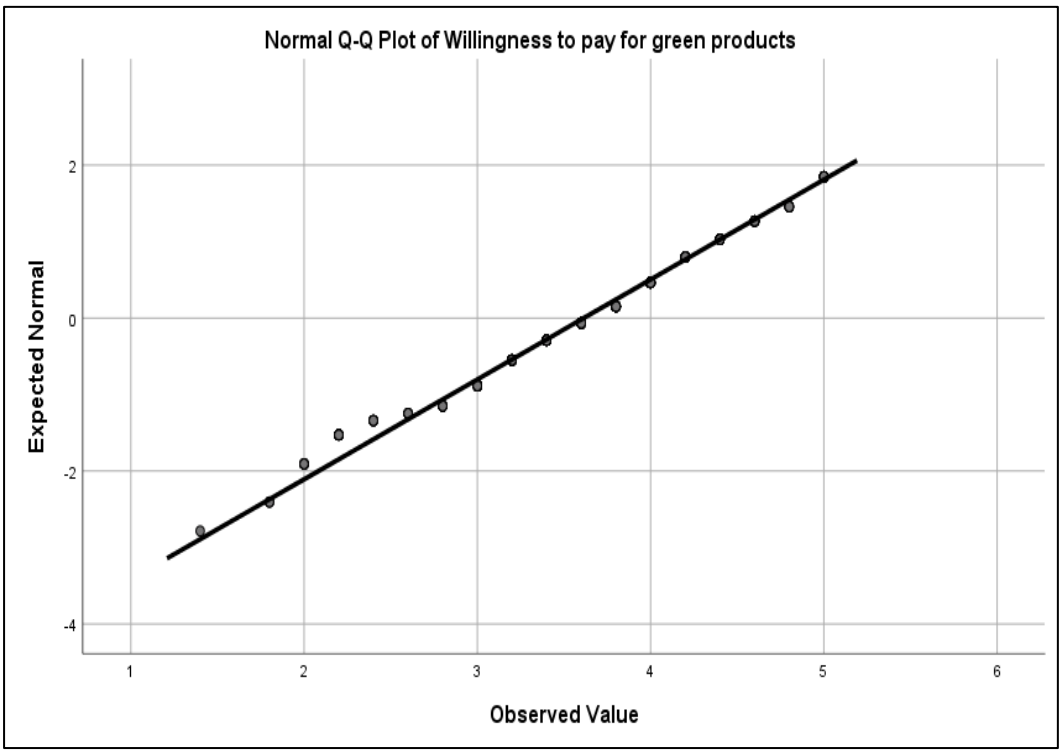
Histogram



Secondly, a histogram is also used to check whether the data fulfils the normality assumption. A histogram is a figure that is frequently used to summarize the quantitative data in research articles, newspapers and so on (Kaplan, Gabrosek, Curtiss & Malone, 2014). Figure 4.6 shows the histogram that is created based on the data of our dependent variable, which is the willingness to pay for green products. In this histogram, the distribution plot is created and a normal distribution curve is superimposed on the plot. It is observed that the distribution plot roughly follows the pattern of the normal distribution curve. The frequency of the data is the highest in the middle and becomes lower as it moves to both extremes. Therefore, it is said to be approximately symmetrical and bell-shaped. As a result, the data is considered to be normally distributed.

Figure 4.7:

Normal Q-Q plot



Thirdly, a type of normal probability plot, which is called a normal Q-Q plot, is used to graphically understand whether the data follows a normal distribution. A normal Q-Q plot is a scatterplot that compares the empirical quantile which is plotted on the X-axis and the theoretical quantile which is plotted on the Y-axis (Almeida, Loy & Hofmann, 2018). The empirical quantile follows the distribution of the collected or observed data while the theoretical quantile follows the normal distribution. If both distributions are roughly the same, the quantiles are also approximately the same (Ramachandran & Tsokos, 2015). Therefore, a straight line in a normal Q-Q plot indicates a normal distribution (Pallant, 2013). Based on Figure 4.7, all the data points are situated near the diagonal line so a pattern that is approximately a straight line is formed. Therefore, it is concluded that the data has a normal distribution.

4.4 Inferential Analysis

4.4.1 Multiple Regression Analysis

Table 4.15

Multiple Regression Analysis

	Unstandardized Coefficient Beta	Coefficient Std. Error	Standardized Coefficient Beta	t-statistics	P-value
(Constant)	(0.038)	0.279		(0.136)	0.892
ATT	0.231	0.074	0.163	3.117	0.002
SN	0.113	0.058	0.106	1.951	0.052
PBC	0.227	0.064	0.204	3.536	0.000
EC	0.135	0.064	0.103	2.105	0.036
EK	0.229	0.045	0.253	5.073	0.000
R-squared					0.398
Adjusted R-squared					0.389
F-test					48.169
P-value					0.000
Durbin Watson					1.982

In this study, the relationship between the five independent variables, which are attitude towards green products (ATT), subjective norm (SN), perceived behavioural control (PBC), environmental concern (EC) and environmental knowledge (EK), and the dependent variable, which is the willingness to pay for green products, is examined. According to Table 4.15, the results show that the

attitude towards green products, subjective norm, perceived behavioural control, environmental concern, as well as environmental knowledge, are significant at t-statistics of 3.117, 1.951, 3.536, 2.105, 5.073 respectively since the p-values of all these t-statistics are smaller than 0.10.

The first independent variable, attitude towards green products is significant at 99% of confidence level. This is because its p-value which is 0.002 is less than the significance level of 0.01. This result conforms to the findings of Hossain and Lim (2016), Prakash and Pathak (2017), and Yazdanpanah and Forouzani (2015). The result agrees with this study's expectations that attitude towards green products is significantly related to the willingness to pay for green products among the undergraduate students in UTAR Kampar. Moreover, the unstandardized regression coefficient is positive at 0.231, which indicates that one unit increase in attitude towards green products leads to an increase of 0.231 unit in the willingness to pay for green products among undergraduate students in UTAR Kampar, ceteris paribus.

Besides, subjective norm, which is the second independent variable in this study, is proven to be significant at 90% of confidence level. This is because its p-value which is 0.052 is less than the significance level of 0.10. The result conforms to the findings of Teng et al. (2018) and Choi and Johnson (2019). Hence, it shows that subjective norm is significantly related to the willingness to pay for green products among undergraduate students in UTAR Kampar as this study assumes. The unstandardized regression coefficient is positive at 0.113, which reveals that one unit increase in subjective norm improves the willingness to pay for green products among the undergraduate students in UTAR Kampar by 0.113 unit, ceteris paribus.

Furthermore, the third independent variable, perceived behavioural control is significant at 99% of confidence level. This is because its p-value which is 0.000 is less than the significance level of 0.01. The result conforms to the findings of

Chen and Deng (2016), Paul et al. (2016), and Arli et al. (2018). The result verifies this study's expectation which asserts that perceived behavioural control and willingness to pay for green products have a significant relationship. The unstandardized regression coefficient is positive at 0.227. Therefore, an increase in a unit of perceived behavioural control tends to increase 0.227 unit of the willingness to pay for green products among undergraduate students in UTAR Kampar, holding other variables constant.

Environmental concern, which is the fourth independent variable, is significant at 95% of confidence level. This is because its p-value which is 0.036 is less than the significance level of 0.05. The result agrees with the findings of Prakash and Pathak (2017), Maichum et al. (2016), and Goh and Balaji (2016). This shows that environmental concern has a significant influence on the willingness to pay for green products. Also, the unstandardized regression coefficient shows a positive result at 0.135. This indicates that an increment of one unit of environmental concern increases the willingness to pay for green products among undergraduate students in UTAR Kampar by 0.135 unit, ceteris paribus.

In addition, the selected last independent variable in this study, environmental knowledge is significant at 99% of confidence level. This is because its p-value which is 0.000 is less than the significance level of 0.01. The outcome of this study conforms to the results of Li et al. (2019) and Mostafa (2006). They claim that environmental knowledge significantly leads to a high willingness to pay for green products because consumers want to protect the environment. Besides, the unstandardized regression coefficient is positive at 0.229. This shows that an increment of one unit of environmental knowledge increases the willingness to pay for green products among undergraduate students in UTAR Kampar by 0.229 unit, holding other variables constant.

Apart from that, R-squared (R^2) or the coefficient of determination is a statistical measurement that explains how many percentages of change in the dependent

variable is determined by the change in the independent variables (Filho, Silva & Rocha, 2011). The result of 0.398 R^2 represents that 39.8% of the variation in willingness to pay for green products among undergraduate students in UTAR Kampar is affected by the combined variation of the attitude towards green products, subjective norm, perceived behavioural control, environmental concern, and environmental knowledge. The remaining 60.2% of the variation in the willingness to pay for green products among undergraduate students in UTAR Kampar is explained by other relevant factors.

Next, the adjusted R-squared is 0.389. This means that 38.9% of the variation in the willingness to pay for green products among undergraduate students in UTAR Kampar is interpreted by combined variation of attitude towards green products, subjective norm, perceived behavioural control, environmental concern, as well as environmental knowledge after considering the degree of freedom.

Furthermore, the regression model is statistically significant at the confidence level of 99%. This is because the p-value of F-test is 0.000 which is less than the significance level of 0.01. Hence, the F-statistic of 48.169 is significant. Hence, this model significantly illustrates the relationship between the five independent variables, which are attitude towards green products, subjective norm, perceived behavioural control, environmental concern, and environmental knowledge and the dependent variable, which is the willingness to pay for green products.

Durbin Watson Test is a measurement of autocorrelation, also known as the serial correlation in the residuals of a regression analysis. The problem of autocorrelation leads to the underestimation of standard error and misleading results eventually. Durbin Watson Test has the value falling between zero and four. The value of less than two means positive autocorrelation while the value of more than two means negative autocorrelation. If the Durbin Watson statistic has the value of two, this means that the autocorrelation problem is absent from the model. According to the result in the table, the Durbin Watson statistic is 1.982.

Since the value is very close to two, there is no autocorrelation problem in our model.

4.5 Conclusion

To perform data analysis, SPSS 26.0 is utilized. It is useful in analysing and summarizing the data obtained from the respondents. It is found that the scales for the questionnaire are reliable. Besides, there is no multicollinearity and non-normality problem. In short, from the multiple regression analysis, all the five independent variables which are attitude towards green products, subjective norm, perceived behavioural control, environmental concern, and environmental knowledge are significantly related the willingness to pay for green products.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.0 Introduction

In chapter five, the findings obtained in chapter four are discussed more comprehensively. First, the results for the inferential analysis are summarized. Secondly, the reasons why these results are obtained are discussed. Thirdly, some suggestions on how the findings can be utilized are provided. Lastly, the constraints of this study and suggestions for future research are also discussed.

5.1 Summary of Statistical Analysis

Table 5.1

Summary of the Statistical Findings

Independent Variables	T-statistics	P-value	Results
Attitude towards Green Products	3.117	0.002	Significant
Subjective Norm	1.951	0.052	Significant
Perceived Behavioural Control	3.536	0.000	Significant
Environmental Concern	2.105	0.036	Significant
Environmental Knowledge	5.073	0.000	Significant

According to Table 5.1, attitude towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge have significant relationships with the willingness to pay for green

products. Therefore, all the independent variables are strong predictors of the willingness to pay for green products among undergraduate students in UTAR.

5.2 Discussion on Major Findings

In this section, the major findings, which are summarized in Section 5.1, are analysed in a more detailed manner. These findings are discussed one by one by connecting them to the efforts done by the university.

5.2.1 Key Determinants of Willingness to Pay for Green Products among Undergraduate Students in UTAR

5.2.1.1 Attitude towards Green Products and Willingness to Pay for Green Products

Based on the results of the inferential analysis, attitude towards green products has a significant relationship with the willingness to pay for green products among undergraduate students in UTAR. This is similar to the findings of Choi and Johnson (2019), Arli et al. (2018) and Chaudhary and Bisai (2018). Attitude towards green products means how positively or negatively consumers evaluate green products (Mamun, Mohamad, et al., 2018). This favourable attitude is formed when consumers believe that green products can decrease the environmental problems (Chen et al., 2018).

Many efforts have been made by UTAR in promoting a positive attitude towards green products. For example, UTAR organized "Sustainable and Innovative Green Product Design Competition" to promote green products among undergraduate students in Malaysia. Another activity done to promote green products was "Solar Competition" organized by the Engineering Society in 2017 to promote the utilization of solar cells. Besides, Engineering Society also organized "My Green Space: Green Building Innovation Competition" in 2019 to promote the green houses which have a less negative impact on the environment while still maintain the comfort. Moreover, in order to promote green products, UTAR also works on the Green Campus Initiative by prohibiting the usage of polystyrene-based products by the cafeterias, push cart operators and event organisers. These efforts done by UTAR have developed the favourable attitude towards green products among UTAR students which leads to their higher willingness to pay for green products.

5.2.1.2 Subjective Norm and Willingness to Pay for Green Products

The results also reveal a significant relationship between subjective norm and willingness to pay for green products among undergraduate students in UTAR. This is supported by the findings of Teng et al. (2018), Arli et al. (2018) and Sreen et al. (2018). Subjective norm is defined as beliefs about whether a majority accepts a particular behaviour (Arli et al., 2018). It includes the opinion of important others like peers (Chaudhary & Bisai, 2018) and teachers (Mohiuddin et al., 2018).

UTAR has have carried out various activities which have successfully shaped the perceived social pressure among the undergraduate students in UTAR to consume green products. For example, from 2016 to 2019, UTAR has organized 14 green projects which were participated by 659 UTAR students and 167 UTAR staff

including lecturers. Besides, UTAR has also organized "gotong-royong", which was a type of communal work, at Beautiful Gate Foundation. This activity was also participated by both students and lecturers. As these activities allow more interactions between students and lecturers, the students face higher social pressure from their environmentally-minded lecturers to consume green products. Moreover, UTAR has clubs and societies such as UTAR Sustainable Development Club, Built Environment Society and Engineering Society that connect environmentally-minded students together. By joining these clubs and societies, undergraduate students feel higher pressure from their peers to purchase green products. Hence, these efforts done by UTAR have formed a greater subjective norm among the undergraduate students in UTAR which increases their willingness to pay for green products.

5.2.1.3 Perceived Behavioural Control and Willingness to Pay for Green Products

Next, it is also found that perceived behavioural control has a significant relationship with the willingness to pay for green products among undergraduate students in UTAR. This result is similar to the result of Arli et al. (2018), Teng et al. (2018) and Paul et al. (2016). Perceived behavioural control refers to the belief of whether carrying out an action is difficult or easy (Arli et al., 2018). Perceived behavioural control can be reflected by the situational factors such as availability and economic cost of the products (Chen & Deng, 2016).

UTAR has taken some steps to make it easy for undergraduate students to obtain green products. One of the major steps is to make it compulsory for the cafeterias, push cart operators and event organisers to use plates, cups, boxes and packaging which are recyclable, paper-based or translucent polypropylene-based. This increases the availability of green products in UTAR. Furthermore, UTAR

prohibits the sellers from charging an additional cost for the usage of these environmentally-friendly plates, cups, boxes and packaging except when the students order takeaway food. For the takeaway food, students are only charged a minimum cost which ranges from RM0.20 to RM0.50. Hence, the students are able to purchase green products on the campus at a reasonable price. The availability and low cost of green products on the campus have improved the perceived behavioural control of the students, and this contributes to the high willingness to pay for green products.

5.2.1.4 Environmental Concern and Willingness to Pay for Green Products

Then, environmental concern is also found to have a significant relationship with the willingness to pay for green products among undergraduate students in UTAR. Similar results are also put forward by Prakash and Pathak (2017), Maichum et al. (2016) and Goh and Balaji (2016). Environmental concern means the consciousness of environmental issues and the support or readiness to resolve these issues (Ahmad & Thyagaraj, 2015). According to Lasuin and Ching (2014), as consumers are more emotionally involved in environmental issues, they have a higher environmental concern.

In order to raise awareness and emotional involvement in the environmental issues among the undergraduate students, UTAR has put in efforts to organize various activities. For instance, the Faculty of Business and Finance carried out campaigns such as Energy Saving Campaign and Eco Friendly Campaign in 2017 to promote the awareness of preserving the environment. Besides, UTAR Sustainable Development Club carried out “Go Green Campaign” in 2018 to raise the environmental concern of the UTAR students. Furthermore, the Community Service Society of UTAR organizes an event called “Earth Hour” annually to spread the awareness of global warming and climate change. Moreover, UTAR

also worked with Technological Association Malaysia to organize Ecobot Competition in 2019 which was targeted to improve the awareness about climate change issues. These activities have enhanced the environmental concern of undergraduate students in UTAR. Because of this, their willingness to pay for green products is increased.

5.2.1.5 Environmental Knowledge and Willingness to Pay for Green Products

Lastly, it is also discovered that there is a significant relationship between environmental knowledge and willingness to pay for green products among undergraduate students in UTAR. This is in agreement with the findings of Goh and Balaji (2016), Chauhan and Bhagat (2017) and Maichum et al. (2017). Environmental knowledge means the general understanding of the truths, ideas and relationships about the natural surroundings and its vital ecosystems (Goh & Balaji, 2016).

UTAR has successfully equipped undergraduate students with sufficient environmental knowledge in several ways. For example, UTAR offers undergraduate courses related to the environment such as Bachelor of Engineering (Honours) Environmental Engineering and Bachelor of Science (Honours) Environmental, Occupational Safety and Health. These courses produce undergraduate students who have high environmental literacy. Besides, UTAR also organized webinars related to environmental sustainability such as “Moving towards Circular Economy”, talks such as “Why should we Go Green?” and workshops such as “Green Revolution: Enhancing Supply Chain Effectiveness”. Other than that, UTAR also conducted conferences, which revolved around environmental issues, such as the “International Symposium on Green and Sustainable Technology” and “Mini Symposium on Chemistry and Green Technology”. As the undergraduate students in UTAR gain more environmental

knowledge from these courses, webinars, talks, workshops and conferences, they become more willing to pay for green products.

5.3 Implications of the Study

In this section, the managerial implications are provided. The emphasis is on what actions can be taken by the organizations, such as universities, government and religious organizations, to promote the willingness to pay for green products based on the results obtained from data analysis.

5.3.1 Managerial Implications

According to the results of the multiple regression analysis, it is found that the first independent variable, attitude towards green products, has a significant influence on the willingness to pay for green products. In order to improve the willingness to pay for green products, all the universities can play a leading role to increase the undergraduate students' attitude towards green products. For instance, universities can organize talks and campaigns which emphasize the benefits of purchasing green products to cultivate undergraduate students' attitude towards green products. Besides, the government could emphasize the main content of the environmental campaigns and green messages on the benefits of green products to the environment and health. At the same time, the government could highlight the importance of these benefits. The government can reach more undergraduate students by displaying and advertising green products through the infomercial or social media since nowadays undergraduate students spend most of their time on their electronic mobile devices. Also, the government could persistently instil the importance of green products into the students since they are in primary schools

until they enter universities. By taking these steps, the attitude towards green products is likely to increase and lead to a higher willingness to pay for green products among university students.

Besides, the subjective norm, which is the second independent variable in this study, has a significant relationship with the willingness to pay for green products. Therefore, the important referents such as family members, friends, peers and teachers play a significant role to convince the undergraduate students to buy green products. Universities could encourage the formation of more clubs and societies that are related to sustainable development which can attract more students who are environmentally friendly together. Besides, religious organizations such as Buddhist associations, Christian associations and Islamic associations can always advocate their followers to bring along family members when attending their environmental events to allow for more parent-child interactions. For example, Tzu Chi Foundation, which is a Buddhist association, combined Parents' Day and Tzu Chi's Environmental Day to encourage their followers to bring along their children to do recycling activities. This can increase the influence of the parents on their children's willingness to pay for green products. Besides, the government could develop more campaigns that emphasize the negative consequences of using conventional products by inviting some opinion leaders such as popular celebrities or famous people to publicize the effort. This is because undergraduate students are likely to imitate and perform the actions done by these people. Given that the important referents get influenced by these campaigns and activities, undergraduate students can feel more social pressure which causes them to be more willing to pay for green products.

The third independent variable which is perceived behavioural control has a significant influence on the willingness to pay for green products. Perceived behavioural control can be reflected by the availability and economic cost of green products (Chen & Deng, 2016). Therefore, universities can concentrate on increasing the availability of green products on their campuses. In order to achieve that, universities can implement environmental policies and regulations which

prohibit the food vendors from using non-green products such as polystyrene based products and plastic straws. Besides, the government can encourage the use of green products such as recyclable plastic bottles in the universities by providing subsidies on green products to the universities. This can enable undergraduate students to obtain green products at a more affordable price. Hence, by improving the availability and decreasing the economic cost of green products, the universities and government can improve the perceived behavioural control of undergraduate students so they can become more willing to pay for green products.

Next, environmental concern, which is the fourth independent variable selected in this study, has also been found to have a significant relationship with the willingness to pay for green products. Therefore, to increase the willingness to pay for green products among undergraduate students, universities can organize environmental poster competitions and post the award-winning posters along the corridor aisle of their campuses. This can attract undergraduate students' attention and help them realize how severe the environmental damages around the world are. Besides, universities could also conduct more environmental activities such as environmental campaigns, talks and workshops on their campuses. Next, the government can organize debate competitions that are related to environmental issues in the universities and offer attractive prizes to encourage more undergraduate students to join the competitions. The government could also utilize different platforms such as social media and newspapers to remind undergraduate students about the seriousness of environmental problems. These suggested steps could increase the environmental concern of undergraduate students and subsequently increase their willingness to pay for green products.

Last but not least, the last independent variable in this study is environmental knowledge, which also has a significant relationship with the willingness to pay for green products. Hence, universities can include more environmental knowledge into the teaching and learning materials and syllabus so that undergraduate students can have a higher willingness to pay for green products. Also, universities could conduct an environmental quiz competition every

semester. This naturally boosts up undergraduates students' environmental knowledge, and in turn, increase their willingness to pay for green products. Furthermore, the government can carry out talks which provide the undergraduate students with the knowledge on how to differentiate green products from conventional products by looking at the green labels, symbols and phrases on the products. Besides, the government can spread environmental knowledge to undergraduate students through the infomercial and social media. If these activities are carried out, the undergraduate students can have more environmental knowledge which can lead to a higher willingness to pay for green products.

5.4 Limitations of Study

In this section, several constraints of the study have been identified. First of all, the focus of this study is on the undergraduate students of UTAR Kampar campus. This is because undergraduate students are the main consumers of future green products. UTAR Kampar campus has done a lot of efforts to promote sustainable development among the undergraduate students and has improved from 146th place to 102nd place in the UI Green Metric World University Rankings 2019. However, the result of this study may be difficult to generalize to undergraduate students from other universities in Malaysia. This is because it is possible that undergraduate students from other universities have different degrees of willingness to pay for green products.

Next, this study is a quantitative study that collects data based on questionnaires to explain the relationship between the independent variables, which are attitude toward green products, subjective norm, perceived behavioural control, environmental concern, and environmental knowledge, and the dependent variable, which is the willingness to pay for green products. The survey questionnaire is used because it is a preferred tool for collecting information about the attitudes,

social traits and behaviours of the respondents (Bulmer, 2004). Besides, it enables a large amount of data to be collected in a cheaper and more effective way. Moreover, it is a method that enables a comparison between responses and ensures the anonymity of the participants. However, by using the survey questionnaire, it is difficult for us to understand the respondents' thoughts in depth.

Last but not least, the purpose of this study is to examine the direct relationship between the independent variables and the dependent variable based on the Extended Theory of Planned Behaviour (Yadav & Pathak, 2016) because this theory considers two additional variables which are environmental concern and environmental knowledge compared to original Theory of Planned Behaviour. However, this study only focuses on the direct relationship between the dependent variable and the independent variables without taking into account the possibility of mediators and moderators in studying the willingness to pay for green products.

5.5 Recommendations for Future Research

Hence, some aspects of the research can be improved in the upcoming researches studying the factors affecting the willingness to pay for green products so that this topic can be understood more comprehensively. Therefore, some recommendations are given in this section.

The first recommendation is that future researchers could select respondents from other Malaysian public and private universities so that the results in different universities can be compared among one another. This enables the difference in willingness to pay for green products between different universities to be identified. Moreover, future researchers could use a combination of undergraduate students from different universities instead of involving only one university. This

may improve the accuracy of the results and the ability to generalize the results to undergraduate students in other universities in Malaysia.

The second recommendation is that future researchers could utilize qualitative research techniques in their studies. For example, qualitative research techniques such as face-to-face interviews and focus group interviews can be carried out to gather data about the factors affecting willingness to pay for green products. Furthermore, the future researches may use the mixed method which combines both quantitative and qualitative method. This may allow future researchers to understand the respondents' thoughts more deeply.

The third recommendation is that future studies could expand their scope of the study by including more relevant variables. For example, future researchers could propose conceptual frameworks which investigate the role of mediating variables and moderating variables. This could offer deeper insights into the nature of the willingness to pay for green products.

5.6 Conclusion

The ultimate goal of this study is to study the factors affecting the willingness to pay for green products among undergraduate students in UTAR. Questionnaires were distributed to collect data and SPSS 26.0 is used to analyse the data. The results indicate that all hypotheses from H1 to H5 are accepted. This shows that the attitude towards green products, subjective norm, perceived behavioural control, environmental concern and environmental knowledge have significant influences on the willingness to pay for green products. These findings are thoroughly discussed and some implications of these findings are provided. Lastly, the constraints of the study are discussed and the corresponding suggestions are

provided for upcoming researches. Hence, this study could provide some insights to future researchers in terms of respondent selection, data collection and variable selection.

REFERENCES

Abdulwahab, L., Zulkhairi, M. D., & Galadima, M. B. (2011). Data screening and preliminary analysis of the determinants of user acceptance of Telecentre. *Journal of Information Systems: New Paradigms, 1*(1), 11-23.

Afroz, R., Masud, M. M., Akhtar, R., Islam, M. A., & Duasa, J. B. (2015). Consumer purchase intention towards environmentally friendly vehicles: An empirical investigation in Kuala Lumpur, Malaysia. *Environmental Science and Pollution Research, 22*, 16153-16163.

Ahmad, A., & Thyagaraj, K. S. (2015). Consumer's intention to purchase green brands: The roles of environmental concern, environmental knowledge and self expressive benefits. *Current World Environment, 10*(3), 879-889.

Ahmad, I., Syed, F., Naseer, S., & Rasool, G. (2018). Environmental concern as an underlying mechanism between environmental beliefs and green purchase intentions. *South Asian Journal of Management Sciences, 12*(1), 93-115.

Ahmed, N., Khan, T. I., & Augustine, A. (2018). Climate change and environmental degradation: A serious threat to global security. *European Journal of Social Sciences Studies, 3*(1), 161-172.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211.

Aldrich, J. O. (2019). *Using IBM SPSS statistics* (3rd ed.). Los Angeles, CA: SAGE Publications, Inc.

Ali, A., Khan, A. A., Ahmed, I., & Shahzad, W. (2011). Determinants of Pakistani consumers' green purchase behavior: Some insights from a developing country. *International Journal of Business and Social Science, 2*(3), 217-226.

Alibeli, M. A., & White, N. R. (2011). The structure of environmental concern. *International Journal of Business and Social Science, 2*(4), 1-8.

Almeida, A., Loy, A., & Hofmann, H. (2018). Ggplot2 compatible quantile-quantile plots in R. *The R Journal, 10*(2), 248-261.

Mohsin, A. (2016). A manual for selecting sampling techniques in research. *University of Karachi, Iqra University*.

Ang, S., & Ang, S. (2018). Developing sustainably until 2030: A case study on a university town, Kampar (Perak, Malaysia). *International Journal of Social Science and Humanity, 8*(5), 129-133.

Angelovska, J., Sotiroska, S. B., & Angelovska, N. (2012). The impact of environmental concern and awareness on consumer behavior. *Journal of International Environmental Application & Science, 7*(2), 406–416.

Arli, D., Tan, L. P., Tjiptono, F., & Yang, P. (2018). Exploring consumers' purchase intention towards green products in an emerging market: The role of consumers' perceived readiness. *International Journal of Consumer Studies, 42*(4), 389-401.

Arli, D., & Tjiptono, F. (2017). God and green: Investigating the impact of religiousness on green marketing. *International Journal of Nonprofit and Voluntary Sector Marketing, 22*(3), 1-11.

Atan, A. M. (2015). *MyHIJAU Programme & Green Technology Financing Scheme* [PowerPoint presentation]. Retrieved from https://www.st.gov.my/en/contents/presentations/Seminar_EE_2015/05.%20MGTC_%20MyHIJAU%20Programme%20&%20GTFS%20-En.%20Abd%20Malik%20B.%20Atan.pdf

Azizan, S. A. M., & Suki, N. M. (2013). Consumers' intention to purchase green product: Insights from Malaysia. *World Applied Sciences Journal, 22*(8), 1129-1134.

Babakus, E., & Mangold, W. G. (1992). Adapting the SERVQUAL scale to hospital services: An empirical investigation. *Health Services Research, 26*(6), 767-786.

Barbarossa, C., Beckmann, S. C., Pelsmacker, P. D., Moons, I., & Gwozdz, W. (2015). A self-identity based model of electric car adoption intention: A cross-cultural comparative study. *Journal of Environmental Psychology, 42*, 149-160.

Bhatia, M., & Jain, A. (2013). Green marketing: A study of consumer perception and preferences in India. *Electronic Green Journal, 1*(36), 1–15.

Bhutto, M. Y., Zeng, F., Soomro, Y. A., & Khan, M. A. (2019). Young Chinese consumer decision making in buying green products: An application of theory of planned behavior with gender and price transparency. *Pakistan Journal of Commerce and Social Sciences, 13*(3), 599-619.

Biswas, A. (2016). A study of consumers' willingness to pay for green products. *Journal of Advanced Management Science, 4*(3), 211-215.

Blessinger, P., Sengupta E., & Makhanya, M. (2018, September 7). Higher education's key role in sustainable development. *University World News*. Retrieved from https://www.universityworldnews.com/post.php?story=20180905082834986

Bulmer, M. (2004). *Questionnaires* (1st ed.). California, Thousand Oaks: SAGE.

Butt, A. (2017). Determinants of the consumers green purchase intention in developing countries. *Journal of Management Sciences, 4*(2), 217-236.

Boyd, B. K., Bergh, D. D., Ireland, R. D., & Ketchen, D. J. J. (2013). Constructs in strategic management. *Organizational Research Methods, 16*(1), 3-14.

Brick, J. M. (2011). The future of survey sampling. *Public Opinion Quarterly, 75*(5), 872-888.

C40 Cities. (2019). The future of urban consumption in a 1.5°c world. Retrieved from https://c40-production-images.s3.amazonaws.com/other_uploads/images/2270_C40_CBE_MainReport_250719.original.pdf?1564075036

Centre for Environment and Green Technology. (n.d.). Activities. Retrieved from http://cegt.research.utar.edu.my/Activities.php

Chaudhary, R., & Bisai, B. (2018). Factors influencing green purchase behavior of millennials in India. *Management of Environmental Quality: An International Journal, 29*(5), 798-812.

Chauhan, V., & Bhagat, R. (2017). Impact analysis of environmental knowledge and environmental attitude on purchase intention among young consumers. *Amity Journal of Management Research, 2*(2), 59-69.

Chekima, B., Wafa, S. A. W. S. K., Igau, O. A., Chekima, S., & Sondoh, S. L. Jr. (2016). Examining green consumerism motivational drivers: Does premium price and demographics matter to green purchasing? *Journal of Cleaner Production, 112,* 3436-3450.

Chen, C., Chen, C., & Tung, Y. (2018). Exploring the consumer behavior of intention to purchase green products in Belt and Road Countries: An empirical analysis. *Sustainability, 10,* 1-18.

Chen, H. S., Tsai, B. K., & Hsieh, C.M. (2017). Determinants of consumers' purchasing intentions for the hydrogen-electric motorcycle. *Sustainability, 9,* 1-12.

Chen, K., & Deng, T. (2016). Research on the green purchase intentions from the perspective of product knowledge. *Sustainability, 8*(9), 1-16.

Chin, W. L. (2019, April 19). Malaysia ranks 8th in Asia-Pacific for environment-friendliness. *Edge Prop*. Retrieved from https://www.edgeprop.my/content/1514119/malaysia-ranks-8th-asia-pacific-environment-friendliness?fbclid=IwAR3sacOdjveCP1qD53QIKF71lOkO3JuPa1s8hCEULOqcafQkJDeCkxG0_BQ

Choi, D., & Johnson, K. K. P. (2019). Influences of environmental and hedonic motivations on intention to purchase green products: An extension of the theory of planned behaviour. *Sustainable Production and Consumption, 18,* 145-155.

Choi, S., & Cho, Y. C. (2015). Exploring the effects of customer attitude and purchase intention on green products: Implications for corporate environment strategies and public policy. *Journal of Marketing Thought, 2*(3), 20-31.

Choshaly, S. H. (2017). Consumer perception of green issues and intention to purchase green products. *International Journal of Management, Accounting and Economics, 4*(1), 66-79.

Chu, P. Y., Lin, Y. L., & Chi, W. N. (2013). A study of consumers' willingness to pay for environmentally friendly clothing for Generation Y: The influences of shopping orientation, fashion orientation and green consumption style. *Marketing Review, 10*(1), 19-42.

Coakes, S. J., & Ong, C. (2011). *SPSS: Analysis without anguish: Version 18 for Windows* (18th ed.). Queensland, Australia: John Wiley & Sons Australia, Ltd.

Daniel, E. (2016). The usefulness of qualitative and quantitative approaches and methods in researching problem-solving ability in science education curriculum. *Journal of Education and Practice, 7*(15), 91-100.

do Paço, A., Shiel, C., & Alves, H. (2019). A new model for testing green consumer behaviour. *Journal of Cleaner Production, 207*, 998-1006.

Environmental Performance Index. (2018). Retrieved from https://epi.envirocenter.yale.edu/downloads/epi2018reportv06191901.pdf

Erdil, M. (2018). Understanding the drivers of Generation Y consumers' green purchase intention: Price sensitivity as a moderating variable. *Journal of Business, Economics and Finance, 7*(1), 89-100.

Faculty of Engineering and Green Technology. (n.d.). Overview. Retrieved from http://fegt.utar.edu.my/Overview-Environmental-Engineering.php

Ferraz, S. B., Buhamra, C., Laroche, M., & Veloso, A. R. (2017). Green products: A cross-cultural study of attitude, intention and purchase behavior. *Revista de Administração Mackenzie, 18*(5), 12–38.

Filho, D. B. F., Silva, J. A., & Rocha, E. (2011). What is R2 all about? *Leviathan, 3*(3), 60-68.

Fischer, D. (2013). Promoting sustainable consumption in educational settings. In U. Schrader, V. Fricke, D. Doyle, & V. Thoresen (Eds.), *Enabling Responsible Living*. Berlin: Springer.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior*. Boston, United States: Addison-Wesley.

Forthofer, R. N., Lee, E. S., & Hernandez, M. (2007). *Biostatistics* (2nd ed.). Retrieved from https://www.sciencedirect.com/book/9780123694928/biostatistics#book-description

Gaspar, M. C., Julião, J., & Tjahjono, B. (2017). Enhancing regional produce as green products for the global market: An exploratory study in a Portuguese region. *International Journal of Social Ecology and Sustainable Development, 8*(3), 100-113.

Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology and Metabolism, 10*(2), 486-489.

Gleim, M. R., Smith, J. S., Andrews, D., & Cronin, J. J. Jr. (2013). Against the green: A multi-method examination of the barriers to green consumption. *Journal of Retailing, 89*(1), 44-61.

Goh, S. K., & Balaji, M. S. (2016). Linking green skepticism to green purchase behavior. *Journal of Cleaner Production, 131*, 629-638.

Gregory-Smith, D., Manika, D., & Demirel, P. (2017). Green intentions under the blue flag: Exploring differences in EU consumers' willingness to pay more

for environmentally friendly products. *Business Ethics: A European Review, 26*(3), 205-222.

Grosseck, G., Țîru, L. G., & Bran, R. A. (2019). Education for sustainable development: evolution and perspectives: A bibliometric review of research, 1992–2018. *Sustainability, 11*(21), 1-35.

Gurău, C., & Ranchhod, A. (2005). International green marketing: A comparative study of British and Romanian firms. *International Marketing Review, 22*(5), 547-561.

Ha, H. Y., & Janda, S. (2012). Predicting consumer intentions to purchase energy-efficient products. *Journal of Consumer Marketing, 29*(7), 461-469.

Handriana, T. (2016). Mapping of green buying perception in developing country. *Mediterranean Journal of Social Sciences, 7*(3), 19-30.

He, X., Zhan, W., & Hu, Y. (2018). Consumer purchase intention of electric vehicles in China: The roles of perception and personality. *Journal of Cleaner Production, 204*, 1060-1069.

Hossain, M. T., & Lim, P. X. (2016). Consumers' buying behavior towards organic foods: Evidence from the emerging market. *Malaysian Management Review, 51*(2), 7-25.

Hruschka, D. J., Cummings, B., John, D. C. S., Moore, J., Khumalo-Sakutukwa, G., & Carey, J. W. (2004). Fixed-choice and open-ended response formats: A comparison from HIV prevention research in Zimbabwe. *Field Methods, 16*(2), 184-202.

Hsu, C., Chang, C., & Yansritakul, C. (2017). Exploring purchase intention of green skincare products using the theory of planned behavior: Testing the moderating effects of country of origin and price sensitivity. *Journal of Retailing and Consumer Services, 34*, 145-152.

Isa, S. M., Lim, C. K., & Chin, P. N. (2017). Green purchase intention of laundry detergent powder in presence of eco-friendly brand. *Global Business and Management Research: An International Journal, 9*(4s), 128-143.

Iyer, P., Davari, A., & Paswan, A. (2016). Green products: Altruism, economics, price fairness and purchase intention. *Social Business, 6*(1), 39-64.

Jain, V. K., & Agarwal, S. (2017). Understanding purchasing behaviour towards environmentally sustainable products using Theory of Planned Behaviour: An Structural Equation Modeling approach. *IOSR Journal of Business and Management, 19*(8), 14-23.

Jaiswal, D., & Kant, R. (2018). Green purchasing behaviour: A conceptual framework and empirical investigation of Indian consumers. *Journal of Retailing and Consumer Services, 41*, 60-69.

Jamaludin, K. I. (2018). Green technology financing facility (GTFS & GTFS 2.0) [PowerPoint presentation]. Retrieved from https://www.myhijau.my/wp-content/uploads/2019/04/Slide-Presentation-GTFSv2-Business-Clinic-2019-compressed.pdf

Johanson, G. A., & Brooks, G. P. (2010). Initial scale development: Sample size for pilot studies. *Education and Psychological Measurement, 70*(3), 394-400.

Johns, R. (2010). Likert items and scales. Retrieved from https://www.sheffield.ac.uk/polopoly_fs/1.597637!/file/likertfactsheet.pdf

Johnstone, M., & Tan, L. P. (2015). Exploring the gap between consumers' green rhetoric and purchasing behaviour. *Journal of Business Ethics, 132*(2), 311-328.

Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British Journal of Applied Science and Technology, 7*(4), 396-403.

Joshi, G. Y., Shoerey, P. A., & Gandhi, A. V. (2019). Analyzing the barriers to purchase intentions of energy efficient appliances from consumer perspective. *Benchmarking: An International Journal, 26*(5), 1565-1580.

Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review, 3*(1-2), 128-143.

Kaplan, J. J., Gabrosek, J. G., Curtiss, P., & Malone, C. (2014). Investigating student understanding of histograms. *Journal of Statistics Education, 22*(2), 1-30.

Karatu, V. M. H., & Mat, N. K. N. (2015). Predictors of green purchase intention in Nigeria: The mediating role of environmental consciousness. *American Journal of Economics, 5*(2), 296-304.

Khaola, P. P., Potiane, B., & Mokhethi, M. (2014). Environmental concern, attitude towards green products and green purchase intentions of consumers in Lesotho. *Ethiopian Journal of Environmental Studies and Management, 7*(4), 361-370.

Khoiriyah, S., & Toro, M. J. S. (2018). Attitude toward green product, willingness to pay and intention to purchase. *International Journal of Business and Society, 19*(4), 620-628.

Khoo, E. (2019, September 19). Malaysia continues efforts to reduce carbon footprint. *The Edge Markets.* Retrieved from https://www.theedgemarkets.com/article/malaysia-continues-efforts-reduce-carbon-footprint

Khor, K. S., & Hazen, B. T. (2017). Remanufactured products purchase intentions and behaviour: Evidence from Malaysia. *International Journal of Production Research, 55*(8), 2149-2162.

Kim, H. (2013). Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. *Restorative Dentistry and Endodontics, 38*(1), 52-54.

Kong, W., Harun, A., Sulong, R. S., & Lily, J. (2014). The influence of consumers' perception of green products on green purchase intention. *International Journal of Asian Social Science, 4*(8), 924-939.

Koya, Z., Ahmad, R., Timbuong, J., & Rahim, R. (2019, July 10). Report: Gen Z to be a game changer. *The Star*. Retrieved from https://www.thestar.com.my/news/nation/2019/07/10/report-gen-z-to-be-a-game-changer

Krejcie, R.V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*, 607-610.

Kucher, A., Heldak, M., Kucher, L., & Raszka, B. (2019). Factors forming the consumers' willingness to pay a price premium for ecological goods in Ukraine. *International Journal of Environmental Research and Public Health, 16*(5), 1-14.

Kveder, A., & Galico, A. (2008). Guidelines for cleaning and harmonization of generations and gender survey data. Retrieved from https://www.ggp-i.org/sites/default/files/questionnaires/GGP_2008_DCHGuide_1.pdf

Kumar, B., Manrai, A. K., & Manrai, L. A. (2017). Purchasing behaviour for environmentally sustainable products: A conceptual framework and empirical study. *Journal of Retailing and Consumer Services, 34*, 1-9.

Kusuma, P. N. P. D., & Handayani, S. R. B. (2018). The effect of environmental knowledge, green advertising and environmental attitude toward green purchase intention. *Russian Journal of Agricultural and Socio-Economic Sciences, 6*(78), 95-105.

Kweku, D. W., Bismark, O., Maxwell, A., Desmond, K. A., Danso, K. B., Oti-Mensah, E. A., … Adormaa, B. B. (2018). Greenhouse effect: Greenhouse gases and their impact on global warming. *Journal of Scientific Research and Reports, 17*(6), 1-9.

Lai, C. K. M., & Cheng, E. W. L. (2016). Green purchase behavior of undergraduate students in Hong Kong. *The Social Science Journal, 53*(1), 67-76.

Larson, M. G. (2006). Descriptive statistics and graphical displays. *Circulation, 114*(1), 76-81.

Lasuin, C. A., & Ching, N. Y. (2014). Factors influencing green purchase intention among university students. *Malaysian Journal of Business and Economics, 1*(2), 1-14.

Leszczyńska, A. (2014). Willingness to pay for green products vs ecological value system. *International Journal of Synergy and Research, 3*, 67-77.

Li, G., Li, W., Jin, Z., & Wang, Z. (2019). Influence of environmental concern and knowledge on households' willingness to purchase energy-efficient appliances: A case study in Shanxi, China. *Sustainability, 11*(4), 1-18.

Lin, S. (2018, August 25). Millennial moment: Coming of age of the world's big spenders. *The Star*. Retrieved from https://www.thestar.com.my/business/business-news/2018/08/25/millennial-moment-coming-of-age-of-the-worlds-big-spenders

Lin, S., & Niu, H. (2018). Green consumption: Environmental knowledge, environmental consciousness, social norms, and purchasing behavior. *Business Strategy and the Environment, 27*(8), 1679-1688.

Lin, S. C., Nadlifatin, R., Amna, A. R., Persada, S. F., & Razif, M. (2017). Investigating citizen behavior intention on mandatory and voluntary pro-environmental programs through a pro-environmental planned behavior model. *Sustainability, 9*(7), 1-15.

Lu, L., Chang, H., & Chang, A. (2015). Consumer personality and green buying intention: The mediate role of consumer ethical beliefs. *Journal of Business Ethics, 127*(1), 205-219.

MacKenzie, S. (2013). *Human-computer interaction: An empirical research perspective*. Retrieved from https://www.sciencedirect.com/book/9780124058651/human-computer-interaction#book-info

Maichum, K., Parichatnon, S., & Peng, K. (2016). Application of the extended theory of planned behavior model to investigate purchase intention of green products among Thai consumers. *Sustainability, 8*(10), 1-20.

Maichum, K., Parichatnon, S., & Peng, K. (2017). Factors affecting on purchase intention towards green products: A case study of young consumers in Thailand. *International Journal of Social Science and Humanity, 7*(5), 330-335.

Malaysia's performance in Environmental Performance Index. (2016). Retrieved from http://www.mpc.gov.my/wp-content/uploads/2016/04/EPI-2016-Topline.pdf

Malaysia's private universities join their public counterparts in a strong rise in world rankings. (2018, December 3). *QS Wow News.* Retrieved from https://qswownews.com/malaysias-private-universities-join-their-public-counterparts-in-a-strong-rise-in-world-rankings/

Malaysian Green Technology Corporation. (n.d.). Introduction of Green Technology Financing Scheme 2.0 (GTFS 2.0). Retrieved from https://www.gtfs.my/news/introduction-green-technology-financing-scheme-20-gtfs-20

Malik, C., & Singhal, N. (2017). Consumer environmental attitude and willingness to purchase environmentally friendly products: An SEM approach. *Vision: The Journal of Business Perspective, 21*(2), 152-161.

Mamun, A. A., Fazal, S. A., Ahmad, G. B., Yaacob, M. R., & Mohamad, M. R. (2018). Willingness to pay for environmentally friendly products among low-income households along Coastal Peninsular Malaysia. *Sustainability, 10*(5), 1-19.

Mamun, A. A., Mohamad, M. R., Yaacob, M. R. B., & Mohiuddin, M. (2018). Intention and behavior towards green consumption among low-income households. *Journal of Environmental Management, 227,* 73-86.

Mead, L. (2017, October 12). Reports focus on role of universities in achieving SDGs. *SDG Knowledge Hub*. Retrieved from http://sdg.iisd.org/news/reports-focus-on-role-of-universities-in-achieving-sdgs/

Mei, O. J., Ling, K. C., & Piew, T. H. (2012). The antecedents of green purchase intention among Malaysian consumers. *Asian Social Science, 8*(13), 248-263.

Ministry of Energy, Green Technology and Water. (2009). National Green Technology Policy. Retrieved from https://policy.asiapacificenergy.org/sites/default/files/National%20Green%20Technology%20Policy%202009.pdf

Mistrik, I., Soley, R., Ali, N., Grundy, J., & Tekinerdogan, B. (Ed.). (2016). *Software quality assurance*. Retrieved from https://www.sciencedirect.com/book/9780128023013/software-quality-assurance#book-info

Mohiuddin, M., Mamun, A. A., Syed, F. A., Masud, M. M., & Su, Z. (2018). Environmental knowledge, awareness, and business school students' intentions to purchase green vehicles in emerging countries. *Sustainability, 10*(5), 1-18.

Moon, M. A., Mohel, S. H., Farooq, A. (2019). I green, you green, we all green: Testing the extended environmental theory of planned behavior among the university students of Pakistan. *The Social Science Journal*, 1-12.

Mostafa, M. M. (2006). Antecedents of Egyptian consumers' green purchase intentions: A hierarchical multivariate regression model. *Journal of International Consumer Marketing, 19*(2), 97-126.

Mufidah, I., Jiang, B. C., Lin, S. C., Chin, J., Rachmaniati, Y. P., & Persada, S.F. (2018). Understanding the consumers' behavior intention in using green ecolabel product through pro-environmental planned behavior model in developing and developed regions: Lessons learned from Taiwan and Indonesia. *Sustainability, 10*(5), 1-15.

Mutsaers, J. (2015). *Environmental concern in global perspective: Exploring relations between core-periphery, vulnerability, environmental problems, post-materialism and environmental concern* (Master's thesis, Lund University, Lund, Sweden). Retrieved from http://lup.lub.lu.se/luur/download?func=downloadFile&recordOId=5403404&fileOId=5403406

Nath, V., Kumar, R., Agrawal, R., Gautam, A., & Sharma, V. (2014). Impediments to adoption of green products: An ISM analysis. *Journal of Promotion Management, 20*(5), 501-520.

Nguyen, H. V., Nguyen, C. H., & Hoang, T. T. B. (2019). Green consumption: Closing the intention-behavior gap. *Sustainable Development, 27*(1), 118-129.

Nguyen, T. N., Lobo, A., & Greenland, S. (2016). Pro-environmental purchase behaviour: The role of consumers' biospheric values. *Journal of Retailing and Consumer Services, 33*, 98-108.

Nielsen. (2015a). Consumer-goods' brands that demonstrate commitment to sustainability outperform those that don't. Retrieved from https://www.nielsen.com/eu/en/press-releases/2015/consumer-goods-brands-that-demonstrate-commitment-to-sustainability-outperform/

Nielsen. (2015b). Green generation: Millennials say sustainability is a shopping priority. Retrieved from https://www.nielsen.com/us/en/insights/article/2015/green-generation-millennials-say-sustainability-is-a-shopping-priority/

Nielsen. (2015c). Sustainability continues to gain momentum among Malaysian consumers. Retrieved from https://www.nielsen.com/my/en/insights/article/2015/sustainability-continues-gaining-momentum-among-malaysians/

Onel, N. (2017). Pro-environmental purchasing behavior of consumers: The role of norms. *Social Marketing Quarterly, 23*(2), 103-121.

Ong, J. W., Goh, G. G. G., Goh, C. Y., Too, M. S. M., & Goh, L. P. (2015). Green product pricing and Malaysian consumers' willingness to pay. *Kajian Malaysia, 33*(1), 191-210.

Onurlubaş, E. (2018). The mediating role of environmental attitude on the impact of environmental concern on green product purchasing intention. *Emerging Markets Journal, 8*(2), 4-18.

Pallant, J. (2013). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (5th ed.). Berkshire, England: McGraw-Hill Education.

Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services, 29*, 123-134.

Pew Research Center. (2010). Obama more popular abroad than at home, global image of U.S. continues to benefit. Retrieved from https://www.pewresearch.org/wp-content/uploads/sites/2/2010/06/Pew-Global-Attitudes-Spring-2010-Report-June-17-11AM-EDT.pdf

Pilus, F. A. M. (2018, March 23). DPM: Malaysia commited to 2050 carbon neutral target. *New Straits Times*. Retrieved from https://www.nst.com.my/news/nation/2018/03/348590/dpm-malaysia-commited-2050-carbon-neutral-target

Prakash, G., & Pathak, P. (2017). Intention to buy eco-friendly packaged products among young consumers of India: A study on developing nation. *Journal of Cleaner Production, 141*, 385-393.

Pratiwi, S. I., & Pratomo, L. A. (2017). Antecedents of willingness to pay for green products. *IOP Conference Series: Earth and Environmental Science, 106*, 1-6.

Puspitasari, N. B., Rinawati, D. I., Suliantoro, H., & Sutrisno, B. D. (2018). The effect of green purchase intention factors on the environmental friendly detergent product (lerak). *E3S Web of Conferences, 73*, 1-5.

Qu, Y., Li, M., Jia, H., & Guo, L. (2015). Developing more insights on sustainable consumption in china based on Q methodology. *Sustainability, 7*, 14211-14229.

Ramachandran, K. M., & Tsokos, C. P. (2015). *Mathematical statistics with applications in R* (2nd ed.). Retrieved from https://www.sciencedirect.com/book/9780124171138/mathematical-statistics-with-applications-in-r#book-info

Rahman, H. A. (2018). Green consumerism. *Asian Journal of Environment, History and Heritage, 2*(2), 43-54.

Ramayah, T., Lee, J.W.C., & Mohamad, O. (2010). Green product purchase intention: Some insights from a developing country. *Resources, Conservation and Recycling, 54*(12), 1419–1427.

Royne, M. B., Levy, M. & Martinez, J. (2011). The public health implications of consumers' environmental concern and their willingness to pay for an eco-friendly product. *Journal of consumer affairs, 45*(2), 329-343.

Sekaran, U., & Bougie, R. (2009). *Research methods for business: A skill-building approach* (5th ed.). West Sussex, United Kingdom: John Wiley & Sons, Inc.

Sekaran, U., & Bougie, R. (2010). *Research methods for business* (5th ed.). West Sussex, United Kingdom: John Wiley & Sons, Inc.

Sekaran, U., & Bougie, R. (2013). *Research methods for business: A skill-building approach* (6th ed.). West Sussex, United Kingdom: John Wiley & Sons, Inc.

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach* (6th ed.). West Sussex, United Kingdom: John Wiley & Sons, Inc.

Setyawan, A., Noermijati, N., Sunaryo, S., & Aisjah, S. (2018). Green product buying intentions among young consumers: extending the application of Theory of Planned Behavior. *Problems and Perspectives in Management, 16*(2), 145-154.

Shabnam, N. (2014). Natural disasters and economic growth: A review. *International Journal of Disaster Risk Science, 5*(2), 157-163.

Sharaf, M. A., Isa, F. M., & Al-Qasa, K. (2015). Factors affecting young Malaysians' intention to purchase green products. *Merit Research Journal of Business and Management, 3*(3), 29-33.

Sharaf, M. A., & Isa, F. M. (2017). Factors influencing students' intention to purchase green products: A case study in Universiti Utara Malaysia. *Pertanika Journal of Social Science and Humanities, 25*, 239-249.

Sheng, G., Xie, F., Gong, S., & Pan, H. (2019). The role of cultural values in green purchasing intention: Empirical evidence from Chinese consumers. *International Journal of Consumer Studies, 43*(3), 1-12.

Sreen, I., Purbey, S., & Sadarangani, P. (2018). Impact of culture, behavior and gender on green purchase intention. *Journal of Retailing and Consumer Services, 41*, 177-189.

Sun, H., Teh, P., & Linton, J. D. (2018). Impact of environmental knowledge and product quality on student attitude toward products with recycled/remanufactured content: Implications for environmental education and green manufacturing. *Business Strategy and the Environment, 27*(7), 935-945.

Tan, B., & Lau, T. (2009). Examining sustainable consumption patterns of young consumers: Is there a cause for concern? *The Journal of International Social Research, 2*(9), 465-472.

Tan, L. P., Johnstone, M., & Yang, L. (2016). Barriers to green consumption behaviours: The roles of consumers' green perceptions. *Australasian Marketing Journal, 24*(4), 288-299.

Tang, K. H. D. (2019). Climate change in Malaysia: Trends, contributors, impacts, mitigation and adaptations. *Science of the Total Environment, 650*, 1858-1871.

Tapsir, S. H. (2019, May 14). Harmonising public and private higher education. *New Straits Times*. Retrieved from https://www.nst.com.my/opinion/columnists/2019/05/488452/harmonising-public-and-private-higher-education

Tarkiainen, A., & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal, 107*(11), 808-822.

Teng, P. K., Ow, M. W., Sandhu, S. K., & Kassim, U. K. (2018). Green attitude and purchase intention towards environmental friendly product. *Journal of Emerging Economies and Islamic Research, 6*(1), 17-25.

Thongplew, N., Spaargaren, G., & van Koppen, C. S. A. K. (2017). Companies in search of the green consumer: Sustainable consumption and production strategies of companies and intermediary organizations in Thailand. *NJAS - Wageningen Journal of Life Sciences, 83*, 12-21.

UI Green Metric. (2018). Overall Rankings 2018. Retrieved from http://greenmetric.ui.ac.id/overall-ranking-2018/

UI Green Metric. (2019). Overall Rankings 2019. Retrieved from http://greenmetric.ui.ac.id/overall-rankings-2019/

United Nations. (1992). Agenda 21. Retrieved from https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf

Vantamay, N. (2018). Investigation and recommendations on the promotion of sustainable consumption behavior among young consumers in Thailand. *Kasetsart Journal of Social Sciences, 39*(1), 51-58.

Vasan, M. (2018). Effect of environment concern and health consciousness of consumers on purchase intention of green products: A path analytic approach. *International Journal of Pure and Applied Mathematics, 119*(15), 2215-2220.

Wang, S., Wang, J., Yang, F., Wang, Y., & Li, J. (2018). Consumer familiarity, ambiguity tolerance, and purchase behavior toward remanufactured products: The implications for remanufacturers. *Business Strategy and the Environment, 27*(8), 1741-1750.

Wang, Y., & Hazen, B. T. (2016). Consumer product knowledge and intention to purchase remanufactured products. *International Journal of Production Economics, 181*, 460-469.

Wee praises UTAR and UM for World University Rankings. (2019, September 13). *The Star*. Retrieved from https://www.thestar.com.my/news/nation/2019/09/13/wee-praises-utar-and-um-for-world-university-rankings

Wei, S., Ang, T., & Jancenelle, V. E. (2018). Willingness to pay more for green products: The interplay of consumer characteristics and customer participation. *Journal of Retailing and Consumer Services, 45*, 230-238.

Wilkinson, D., & Birmingham, P. (2003). *Using research instruments: A guide for researchers*. Taylor & Francis e-Library.

Xu, X., Hua, Y., Wang, S., & Xu, G. (2020). Determinants of consumer's intention to purchase authentic green furniture. *Resources, Conservation and Recycling, 156*, 1-8.

Xu, X., Wang, S., & Yu, Y. (2020). Consumer's intention to purchase green furniture: Do health consciousness and environmental awareness matter? *Science of the Total Environment, 704*, 1-9.

Yadav, R., & Pathak, G. S. (2016). Young consumers' intention towards buying green products in a developing nation: Extending the Theory of Planned Behavior. *Journal of Cleaner Production, 135*, 732-739.

Yadav, R., & Pathak, G. S. (2017). Determinants of consumers' green purchase behavior in a developing nation: Applying and extending the Theory of Planned Behavior. *Ecological Economics, 134*, 114-122.

Yang, K., & Banamah, A. (2014). Quota sampling as an alternative to probability sampling? An experimental study. *Sociological Research Online, 19*(1), 1-11.

Yazdanpanah, M., & Forouzani, M. (2015). Application of the Theory of Planned Behaviour to predict Iranian students' intention to purchase organic food. *Journal of Cleaner Production, 107*, 342-352.

Young, W., Hwang, K., McDonald, S., & Oates, C. J. (2010). Sustainable consumption: Green consumer behavior when purchasing products. *Sustainable Development, 18*(1), 20–31.

Zhang, Q., Zhao, Q., Zhao, X., & Tang, L. (2020). On the introduction of green product to a market with environmentally conscious consumers. *Computers and Industrial Engineering, 139*, 1-16.

Zikmund, W. G. (2003). Basic data analysis: Descriptive statistics [PowerPoint presentation]. Retrieved from http://pioneer.netserv.chula.ac.th/~ppongsa/2900600/LMRM02.pdf

Zikmund, W. G., Babin, B. J., Carr, J. C. & Griffin, M. (2010). *Business research methods* (8th ed.). Mason, OH: Cengage Learning.

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business Research Methods* (9 th ed.). Mason, OH: Cengage Learning.

Zorn, M. (2017). Natural Disasters and Less Developed Countries. In S. Pelc & M. Koderman (Eds.), *Nature, tourism and ethnicity as drivers of (de)marginalization: Insights to marginality from perspective of sustainability and development*. New York City: Springer

Zurairi, A. R. (2018, October 12). Climate-related natural disasters cost Malaysia RM8b in last 20 years. *Malay Mail*. Retrieved from https://www.malaymail.com/news/malaysia/2018/10/12/climate-related-natural-disasters-cost-malaysia-rm8b-in-last-20-years/1681977

APPENDIX 1.1: ETHICAL APPROVAL FOR RESEARCH PROJECT

UNIVERSITI TUNKU ABDUL RAHMAN
Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

Re: U/SERC/51/2020

11 March 2020

Ms Thavamalar a/p Ganapathy
Head, Department of Economics
Faculty of Business and Finance
Universiti Tunku Abdul Rahman
Jalan Universiti, Bandar Baru Barat
31900 Kampar, Perak.

Dear Ms Thavamalar,

Ethical Approval For Research Project/Protocol

We refer to the application for ethical approval for your students' research projects from Bachelor of Economics (Hons) Financial Economics programme enrolled in course UBEZ3026. We are pleased to inform you that the application has been approved under expedited review.

The details of the research projects are as follows:

	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	Factors Affecting Willingness to Pay for Green Products Among Undergraduate Students in UTAR	1. Lai Zheng Hao 2. Ong Jia Yi 3. Tan Suk Li 4. Tio Yu Xuen	Dr Teoh Sok Yee	11 March 2020 – 10 March 2021

The conduct of this research is subject to the following:

(1) The participants' informed consent be obtained prior to the commencement of the research;

(2) Confidentiality of participants' personal data must be maintained; and

(3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

Should the students collect personal data of participants in their studies, please have the participants sign the attached Personal Data Protection Statement for records.

Thank you.

Yours sincerely,

Professor Ts Dr Faidz bin Abd Rahman
Chairman
UTAR Scientific and Ethical Review Committee

c.c Dean, Faculty of Business and Finance
Director, Institute of Postgraduate Studies and Research

Kampar Campus : Jalan Universiti, Bandar Barat, 31900 Kampar, Perak Darul Ridzuan, Malaysia
Tel: (605) 468 8888 **Fax:** (605) 466 1313
Sungai Long Campus : Jalan Sungai Long, Bandar Sungai Long, Cheras, 43000 Kajang, Selangor Darul Ehsan, Malaysia
Tel: (603) 9086 0288 **Fax:** (603) 9019 8868
Website: www.utar.edu.my

APPENDIX 1.2: SURVEY QUESTIONNAIRE

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF BUSINESS AND FINANCE

BACHELOR OF ECONOMICS (HONS) FINANCIAL ECONOMICS

UNDERGRADUATE PROJECT

FACTORS AFFECTING WILLINGNESS TO PAY FOR GREEN PRODUCTS AMONG UNDERGRADUATE STUDENTS IN UTAR

Dear Respondents,

We are final year students from Universiti Tunku Abdul Rahman (UTAR), pursuing Bachelor of Economics (Hons) Financial Economics and currently conducting our final year research project. The aim of the research questionnaire is to study the factors that affect willingness to pay for green products among undergraduate students in UTAR.

Instructions:

This questionnaire consist of three sections which are Section A, Section B and Section C. Please answer all the questions. It should take around 15 minutes to complete this survey. All the answers will be kept **strictly private and confidential**. Thank you for your kind co-operation.

Please be informed that in accordance with Personal Data Protection Act 2010 (PDPA) which came into force on 15 November 2013, Universiti Tunku Abdul Rahman (UTAR) is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

Acknowledgment of Notice

[ ] I have been notified by you and that I hereby understood, consented and agreed per UTAR notice.

[ ] I disagree, my personal data will not be processed.

If you have any enquiries, please do not hesitate to contact:

Lai Zheng Hao	01133041814
Ong Jia Yi	0107817662
Tan Suk Li	0169883662
Tio Yu Xuen	01110880504

Section A: Demographic information

We would like to obtain some information about your personal detail so that we can better understand your willingness to pay for green products. Please tick (√) only ONE answer for each question.

1. Your gender:

( ) Male ( ) Female

2. Your age:

( ) 18-21 ( ) 22-25 ( ) 26-29

3. Your ethnicity:

( ) Malay

( ) Chinese

( ) Indian

( ) Others, please state: _____

4. Your current year of study:

( ) Year 1 ( ) Year 2 ( ) Year 3 ( ) Others, please state: _____

5. Your faculty:

( ) Faculty of Arts and Social Science (FAS)

( ) Faculty of Business and Finance (FBF)

( ) Faculty of Engineering and Green Technology (FEGT)

( ) Faculty of Information and Communication Technology (FICT)

( ) Faculty of Science (FSc)

( ) Institute of Chinese Studies (ICS)

Section B: Factors affecting willingness to pay for green products

This section is seeking your opinion regarding the factors affecting willingness to pay for green products. Please indicate the extent to which you agree or disagree with each of the following statements. Please circle the most appropriate option for each statement.

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1) Between green and conventional products, I prefer green one.	1	2	3	4	5
2) I think that purchasing green products is favourable.	1	2	3	4	5
3) I think that purchasing green products is a good idea.	1	2	3	4	5
4) I think that purchasing green products is safe.	1	2	3	4	5
5) I think green products that can reduce environmental damage are important.	1	2	3	4	5

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1) Most people who are important to me think that I should purchase green products.	1	2	3	4	5
2) Most people who are important to me would approve of my decision to purchase green products.	1	2	3	4	5
3) Most people who are important to me would support me purchasing green products.	1	2	3	4	5
4) My family members think I ought to be purchasing green products.	1	2	3	4	5
5) My friends think I ought to be purchasing green products.	1	2	3	4	5

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1) I believe I have the ability to purchase green products.	1	2	3	4	5
2) I see myself as capable of purchasing green products in future.	1	2	3	4	5

3) I have resources to purchase green products.	1	2	3	4	5
4) I have time to purchase green products.	1	2	3	4	5
5) Green products are generally available in the shops where I usually do my shopping.	1	2	3	4	5

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1) Environmental (natural) pollution is one of my future concerns.	1	2	3	4	5
2) Humankind should live in harmony with the nature, so that they can continue their lives.	1	2	3	4	5
3) I would be willing to reduce my consumption to help protect the environment.	1	2	3	4	5
4) I am concerned about the polluted air's effects on me and my family.	1	2	3	4	5
5) I am concerned about the world's current natural (environmental) situation.	1	2	3	4	5

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1) I know more about green products than the average person.	1	2	3	4	5
2) I know how to select products that reduce the amount of waste.	1	2	3	4	5
3) I understand the environmental phrases and symbols on product packages.	1	2	3	4	5
4) I am very knowledgeable about green products.	1	2	3	4	5
5) I can give people advice about different brands of green products.	1	2	3	4	5

Section C: Dependent Variable

This section is seeking your opinion regarding willingness to pay for green products. Please indicate the extent to which you agree or disagree with each of the following statements. Please circle the most appropriate option for each statement.

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1) I would pay extra for green products even if it had a less-appealing design.	1	2	3	4	5
2) The probability that I will pay extra to buy green products is very high.	1	2	3	4	5
3) When I replace any household appliance, I am willing to pay extra to purchase green one.	1	2	3	4	5
4) Compared with ordinary non-green products, I am more willing to pay extra to buy green products.	1	2	3	4	5
5) I intend to pay more for green products.	1	2	3	4	5

PERSONAL DATA PROTECTION STATEMENT

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

Notice:

1. The purposes for which your personal data may be used are inclusive but not limited to:-
    - For assessment of any application to UTAR
    - For processing any benefits and services
    - For communication purposes
    - For advertorial and news
    - For general administration and record purposes
    - For enhancing the value of education
    - For educational and related purposes consequential to UTAR
    - For the purpose of our corporate governance
    - For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan

2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

4. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

1. By submitting this form you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.

2. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

3. You may access and update your personal data by writing to us at ongjy97@gmail.com.

Thank you for your time, opinion and comments.

~ The End ~

APPENDIX 1.3: TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

TABLE 1
Table for Determining Sample Size from a Given Population

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size.
S is sample size.

APPENDIX 1.4: RELIABILITY TEST ANALYSIS RESULTS FOR PILOT TEST

Willingness to Pay for Green Products

Reliability

[DataSet0]

Scale: Willingness to pay for green products

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.931	5

Attitude towards Green Products

Scale: Attitude towards green products

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.741	.747	4

Subjective Norm

Scale: Subjective norm

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.727	.731	4

Perceived Behavioural Control

Scale: Perceived behavioural control

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.795	.805	5

Environmental Concern

Scale: Environmental concern

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.647	.657	5

Environmental Knowledge

Scale: Environmental knowledge

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.778	.773	5

APPENDIX 1.5: RELIABILITY TEST ANALYSIS RESULTS FOR PILOT TEST

Willingness to Pay for Green Products

Scale: Willingness to pay for green products

Case Processing Summary

		N	%
Cases	Valid	371	100.0
	Excluded[a]	0	.0
	Total	371	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.904	5

Attitude towards Green Products

Scale: Attitude towards green products

Case Processing Summary

		N	%
Cases	Valid	371	100.0
	Excluded[a]	0	.0
	Total	371	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.795	5

Subjective Norm

Scale: Subjective norm

Case Processing Summary

		N	%
Cases	Valid	371	100.0
	Excluded[a]	0	.0
	Total	371	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.863	5

Perceived Behavioural Control

Scale: Perceived behavioural control

Case Processing Summary

		N	%
Cases	Valid	371	100.0
	Excluded[a]	0	.0
	Total	371	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.831	5

Environmental Concern

Scale: Environmental concern

Case Processing Summary

		N	%
Cases	Valid	371	100.0
	Excluded[a]	0	.0
	Total	371	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.849	5

Environmental Knowledge

Scale: Environmental knowledge

Case Processing Summary

		N	%
Cases	Valid	371	100.0
	Excluded[a]	0	.0
	Total	371	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.903	5

APPENDIX 1.6: MULTIPLE LINEAR REGRESSION ANALYSIS RESULTS

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.631[a]	.398	.389	.59821	1.982

a. Predictors: (Constant), Environmental knowledge, Environmental concern, Subjective norm, Attitude towards green products, Perceived behavioural control

b. Dependent Variable: Willingness to pay for green products

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	86.189	5	17.238	48.169	.000[b]
	Residual	130.618	365	.358		
	Total	216.807	370			

a. Dependent Variable: Willingness to pay for green products

b. Predictors: (Constant), Environmental knowledge, Environmental concern, Subjective norm, Attitude towards green products, Perceived behavioural control

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.038	.279		-.136	.892
	Attitude towards green products	.231	.074	.163	3.117	.002
	Subjective norm	.113	.058	.106	1.951	.052
	Perceived behavioural control	.227	.064	.204	3.536	.000
	Environmental concern	.135	.064	.103	2.105	.036
	Environmental knowledge	.229	.045	.253	5.073	.000

a. Dependent Variable: Willingness to pay for green products