

THE IMPACT OF GREEN MARKETING OF FOOD AND
BEVERAGES ON CONSUMERS' PURCHASE INTENTION

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BY

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LIST OF ABBREVIATION

WHO	World Health Organisation
UNESCO	The United Nations Educational, Scientific and Cultural Organization
F&B	Food and Beverage
SDGs	Sustainable Development Goals
CSR	Corporate Social Responsibility
TPB	Theory of Planned Behaviour
SPSS	Statistical Package for Social Science

PREFACE

Environmental problems can have a substantial impact on human health and well-being, as well as on organisations and corporate operations, because they have an effect on the overall health of the planet. As a student pursuing bachelor's degree in international business, it is necessary to understand the current global environmental issues. Implementing green marketing strategies can play a vital role in preserving the environment.

On the other hand, understanding the impact of green marketing on consumer purchase intentions in the F&B sector enables the formulation of more effective green marketing strategies. This final year project aims to discover how the green marketing can have effect on the purchase intention on consumers. These can be achieved through an extensive review of the literature and empirical research. In the end, this project's findings could assist in developing effective green marketing strategies to influence the purchase intention of consumer and encourage actual purchase of green products. Therefore, the rising environmental issues can be addressed.

ABSTRACT

Green marketing is helpful in affecting the consumers' purchase intention to encourage actual purchase. It is essential to study how the green marketing of F&B would have effect on the purchase intention of consumers to address the environmental issues effectively. The objective of this study is to determine the factors of green marketing which would affect the consumers' purchase intention in the F&B sectors.

Data analysis is done from the obtained primary data. The findings of this study indicated that the green product, promotion, and packaging of green products does impact the consumers' purchase intention. However, the price of green product is not exactly influencing the purchase intention of consumers. The study's findings have provided some insightful information and implications to the body of literature regarding green marketing. This study could be served as a guideline for further studies related to the green marketing and consumers' purchase intention.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

The research's background, problem statement, objectives, questions, and significance are all mainly explained in this chapter. The limitations and possible future directions of the study is also addressed.

1.1 Research Background

The overall health of the global environment is declining at a rapid pace due to numerous of the factors. Environmental problems such as climate change, global warming, pollution, and sustainability are having an effect on today's ecosystems, society, economy, and infrastructure (Zakaria & Singh, 2023). Due to increased industrialization and urbanisation in many emerging nations, industrial activities have resulted in a rise in carbon dioxide emissions to the atmosphere. As a result, the amount of greenhouse gases produced by humans, such as CO₂, in the atmosphere has significantly increased causing climate change and global warming (Yoro & Daramola, 2023). The resources on the planet are being stressed more than ever by human activity which drives by population growth, growing energy use, massive migration into cities and rising carbon dioxide emissions (Hale, 2022). Furthermore, issues such as degradation, desertification, scarcity of water and deforestation are rising. The production and consumption of food and beverages significantly contributes to the issues that have been stated above with food distribution, refrigeration, unsustainable agriculture processes and high energy use (Padfield, Papargyropoulou & Preece, 2012). This situation will not only affect current generations, but the future generations will also be harmed. According to estimates from the World Health Organisation (WHO), environmental factors account for 23% of all deaths and 24% of the worldwide illness burden (Nriagu,

2019). Neglecting the environment can have a negative impact on the delicate balance that sustains life on earth. So, it is important for everyone on the planet to contribute to preserve the environment (Environnement, 2022).

Technological advancements have made it simpler for people to observe the deteriorating state of the global environment. Other than that, the most recent statistics from the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics shows that literacy rates have greatly improved, with over 86% of the world's population now literate (What You Need to Know About Literacy, 2023). With the improved technology, literacy rate and more people are getting educated, it is evident that the public's concern over the environment has grown (Takács-Sánta, n.d.). In the contemporary era, the environment has drawn the attention of scientists, decision-makers, and even civilians everywhere around the world. People are getting more aware of the deteriorating environmental situation. As a result, people are now conscious of the need to preserve the water, air, soil and plant life that form up the natural capital that supports humankind. Green consumerism is an extension of the global consumerism movement. It began with awareness within consumers to purchase products which are safe and eco-friendly (Sachdeva, Jordan & Mažar, 2015). Nevertheless, there will always be people whose political and ideological views prohibit them from adopting more environmentally friendly lifestyles. In addition, people are unwilling to purchase green products due to the inconvenience and hassle of the purchasing process, which is caused by limited availability and selection, high costs, and lack of popularity among brands. People will not purchase the product even they have positive attitude towards the green items (Lacie, 2023).

Observably, organisations are now starting to engage in practices that are environmentally friendly. Nowadays, the food and beverage (F&B) industry's commercial practises must take sustainability into account. Some companies are implementing the United Nations Sustainable Development Goals (SDGs) into their corporate strategy across every level, including meat, poultry, fish, dairy, plant-based meals, ingredients, bakery, and beverage (Kwatra, 2022). All companies

should adopt the practices of corporate social responsibility (CSR) and environmental, social, and governance (ESG) to save the planet and benefit future generations (Gillan, Koch, & Starks, 2021).

1.1.1 Green Food and Beverages (F&B) Product

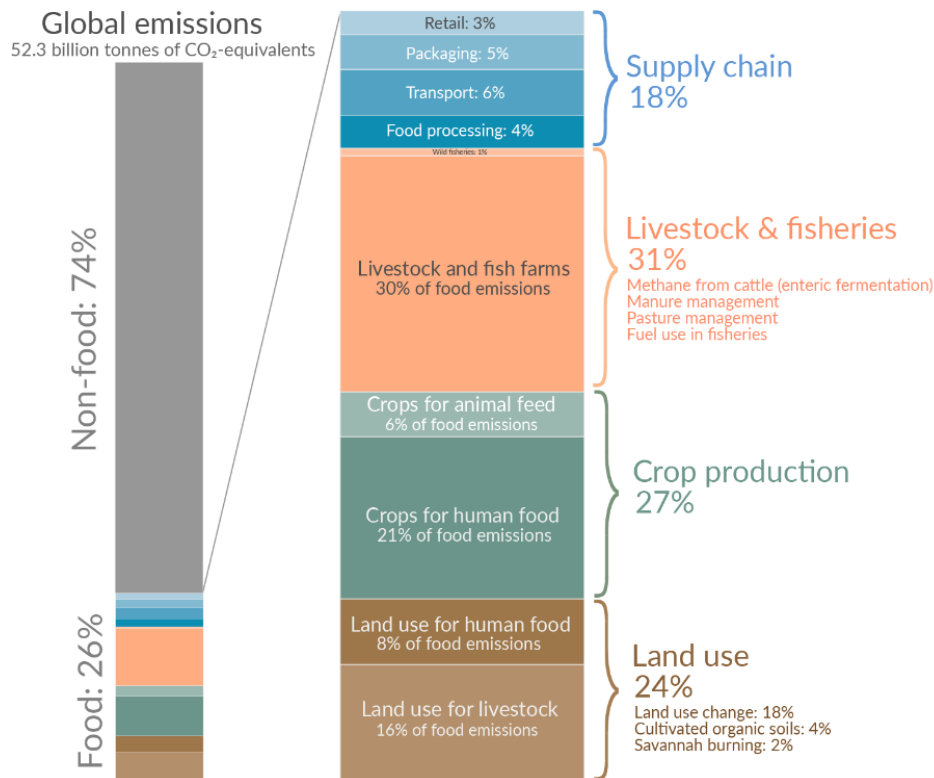
Green products, also known as environmentally friendly products, are recyclable, biodegradable, have little or no packaging, and are produced using organic methods. Food and beverages that naturally create non-toxic, pollution-free, and have the lowest environmental impact are all considered green F&B products (Anjani & Perdhana, 2021). Green F&B products are manufactured and promoted with an emphasis on environmental sustainability and environmental responsibility by following the environmentally friendly practises at every stage of their lifecycle—from sourcing raw ingredients to manufacture, packaging, and distribution. Some of the examples are organic food, plant-based milk, food with paper packaging and so on (A Guide on Eco-Friendly Beverages — the Considerate Consumer, n.d.).

1.2 Research Problem

The F&B industry worldwide is a major contributor to greenhouse gas emissions. In 2019, total greenhouse gas emissions caused by food accounted for roughly 24% (Reavis, Ahlen, Rudek & Naithani., 2022). There has been a rise in greenhouse gas emissions attributable to food production. The food and beverage sector has to mitigate its influence on the environment and natural resources. According to a survey, the food industry is responsible for over two thirds of freshwater withdrawals and around one third of greenhouse gas emissions that occur each year (Chapagain & James, 2013). Figure 1.0 shows that about 26% of greenhouse gas emissions worldwide are caused by food. There are four primary factors that contribute the greenhouse gas emissions encompassing supply chain, livestock and fisheries, crop production and land use. Supply chains, consisting of food processing, transportation, packaging, and retailing, account for 18% of food emissions. Moreover, 31% of food emissions come from fisheries and livestock. The production of crops for human use accounts for 21% of food emissions, while the production of animal feed accounts for 6%. Finally, land used for livestock (16%) produces twice as many emissions as crops grown for human consumption (8%), which collectively account for 24% (Ritchie, 2023). Food and beverage business uses a lot of power because it requires energy not only for processing but also for crop growth and harvesting as well as for transporting food to processing factories. Food and beverage packaging typically has a negative impact on the environment since it accumulates in landfills, contaminates the land and oceans, and requires energy and water to make new packaging (Kwatra, 2022).

The public is neglecting this issue, as food accounts for a relatively small percentage compared to non-food sectors, despite its annual increase. However, the increased rate of population expansion worldwide has been predicted to necessitate a 50% increase in food supplies by 2050 (Chan, 2023). Without global action to address this issue, greenhouse gas emissions from food production will increase significantly by that time.

Figure 1.0 Global Greenhouse Gas Emissions from Food Production



Source: Ritchie, H. (2023, September 27). *Food production is responsible for one-quarter of the world's greenhouse gas emissions*. Our World in Data. <https://ourworldindata.org/food-ghg-emissions>

Growing environmental harms push businesses to develop products that are environmentally sustainable, and one method to perform is through applying the idea of green marketing including business in food and beverages industry (Hasanah, Riana & Toiba, 2023). Many organizations no matter which industry are developing green marketing strategies to keep up with the trends and adjust to the needs of their customers. Green marketing is a kind of marketing that seeks to mitigate the human impact on the environment through production, design, labelling, packaging, and consumption (Delafrooz, Taleghani & Nouri, 2014). Green marketing first appeared in the 1970s, and in the 1990s, consumers started buying more green products (Ansar, 2013). Green marketing is conducted without having an adverse effect on the environment. Since human demands are unlimited and resources are scarce, it is critical for marketers to optimise resource utilisation while minimising waste in order achieve the organization's goal. Therefore, green marketing is essential (Mishra & Sharma, 2015). The biggest obstacles that

organisations who adopt green marketing strategies must overcome include changing customer preferences, scepticism regarding claims made in green advertising, negative consumer perceptions of green products, and the high expense associated with producing green products. Thus, it is imperative to investigate consumer perceptions and attitudes towards green marketing (Tan & Lau, 2010).

A recent survey showed that 65% of respondents stated they would like to purchase eco-friendly products, yet only roughly 26% of them have actually made a purchase (White, Hardisty, & Habib, 2024). On the other hand, there are still a number of customers frequently perceive environmentally friendly products negatively, believing them to be more costly and of lower quality (White et al., 2024). In summary, there are still a significant number of consumers reluctant on purchasing green products.

Several studies show that green marketing is positively correlated with consumers' purchase intention (Anjani & Perdhana, 2021). Hasanah et al. (2023) clarifies that green marketing has a major positive impact on consumers' purchase intention. However, the green marketing conducted may not be true or precise. Certain companies frequently make ambiguous claim that their products are environmentally friendly in an attempt to attract more customers (Martí-Nez, Cremasco, Filho, Braga, Bednaski Quevedo-Silva, Correa, Da Silva & Moura-Leite, 2020). Customers could also have doubts about the firm's environmental commitment as well as the effectiveness, availability, and quality of green goods and services (Gleim, Smith, Andrews & Cronin, 2013).

1.3 Research Objectives

1. To examine the relationship between green marketing and consumers' purchase intention.
2. To examine the relationship between green product and consumers' purchase intention.
3. To examine the relationship between green price and consumers' purchase intention.
4. To examine the relationship between green promotion and consumers' purchase intention.
5. To examine the relationship between green packaging and consumers' purchase intention.

1.4 Research Questions

1. What is the relationship between green marketing and consumers' purchase intention?
2. What is the relationship between green product and consumers' purchase intention?
3. What is the relationship between green price and consumers' purchase intention?
4. What is the relationship between green promotion and consumers' purchase intention?
5. What is the relationship between green packaging and consumers' purchase intention?

1.5 Research Significance

The purpose of this study is to investigate how green marketing affects consumer's purchase intention and provide practitioners with useful information. It also seeks to provide important data for further scholarly studies in the area. Valuable insights provided allows organizations to have a better understanding on how the green marketing they adopt can influence the consumers' purchase intention on food and beverage. The organizations can utilize this knowledge to help them create focused, effective marketing strategies that suit the particular features of the sector. Therefore, the products that the organizations are selling can be attractive and meaningful to the potential consumers. Other than that, it aids organizations to resonate with consumer values. As a result of the tailored marketing strategies focusing on the environment, the customer engagement and loyalty can be raised (Karunaratna, Bandara, Silva & De Mel, 2020). Moreover, these findings are able to guide more organizations in implementing eco-friendly strategies for product creation, packaging, and promotion. This sustainable business practices assist businesses in minimising their environmental impact and fulfil the rising demand for environmentally friendly goods (Rahbar & Wahid, 2011).

By conducting this study focusing on food and beverage, the insights provided could enhance current theories, enabling academics to further develop and broaden conceptual frameworks pertaining to how green marketing affects consumers' purchase intentions. Furthermore, this study helps academics by providing them with industry-specific knowledge about the food and beverage. Due to this, the gap in the existing literature is covered. In addition, it provides the opportunity for the researchers to examine the applicability of general theories to the industry, leading to an improved knowledge of how contextual factors drive consumer purchase intention in terms of sustainability. Besides, this study lays the basis for further investigations into how consumers' purchase intention and green marketing interact in the food and beverage sector. Researchers can expand upon these findings by investigating similar subjects, looking into other variables, and conducting long-term research, all of which will help to further the current body of knowledge in this rapidly developing field.

Furthermore, the demand for environmentally friendly food and beverages has grown recently. According to Nekomahmud and Fekete-Farkas (2020), green consumer behaviour is growing daily. More people are becoming positive towards eco-friendly products. This trend is beneficial for organizations that sell green products or engage in green marketing, as it provides them with a growing market opportunity.

1.6 Chapter Summary

In this chapter, an overview of green marketing and existing environmental issues is provided. Undeniably, green marketing has become an important subject for all parties, especially those living in an environment that is progressively deteriorating. The majority of organizations are dedicated to developing green marketing to satisfy the growing demand and also contribute to the preservation of the environment.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

The variables that affect the consumers' purchase intention are explained in this chapter. Theory of planned behaviour is used to examine the variables that impact the consumer's purchase intention toward green marketing.

2.1 Underlying Theories

Theory of planned behaviour (TPB) is a prominent theory that explores the motivation of people behaviour and intention (Ajzen & Fishbein, 1980). This theory was created by Ajzen. It is the most widely used to explain the causes and precursors of purchase intention. Hence, this theory was utilised in this research (Maichum, Parichatnon & Peng, 2016). According to TPB, subjective norms, attitudes and perceived behavioural control all influence an individual's intention of carrying out an action (Mahmoud, 2018). These three factors are used to predict the future behaviour.

The extent to which an individual has a positive or negative assessment of the behaviour in question" is known as attitude (Ajzen, 1991). Additionally, attitude include assessments of the behaviour's positive and negative aspects as well as an individual's desire to engage in the behaviour (Leonard, 2004). According to Ramayah, Lee, and Mohamad (2010), perceived consequences of behaviour are part of attitude. Positive attitudes influence consumers' judgements, and when they do, their behavioural intentions also tend to be more positive (Han, Hsu & Sheu, 2010).

Subjective norm is a second factor that determines behavioural intention in the TPB model. Subjective norm is referred to the perceived societal pressure to engage in the behaviour or refrain from doing so (Ajzen, 1991). Park (2000) highlighted the influence of those who are close to the individual encompassing families, relatives, close friends, business partners or colleagues. Subjective norms describe how people feel about the social pressure they face when engaging in a particular behaviour. Additionally, consumers are more likely to have positive subjective norms towards a specific behaviour than they are towards the intentions of the behaviour in question (Han et al., 2010).

The perceived ease or difficulty of carrying out the behaviour is known as perceived behavioural control (Ajzen, 1991). It considers previous encounters and expected challenges. Zhou, Thøgersen, Ruan and Huang (2013) claimed that motivation and behavioural control shape behaviour. Therefore, the concept of resources, facilitating variables, action control, and opportunities are included as non-motivational components (Paul, Modi and Patel, 2016). The more favourable the three elements are, the more probable it is that both intention and action will occur (Theory of Planned Behavior, 2023). Numerous researchers have used TPB as a theoretical basis for examining whether or not customers want to engage in environmentally responsible actions (Tan, C., Ooi, H., & Goh, Y., 2017).

TPB was utilised by researchers to predict consumers' intention to purchase organic or green food (Choi & Johnson, 2019; Mkhize & Ellis, 2020; Sultan, Tarafder, Pearson and Henryks, 2020). In addition, some researchers used TPB to predict the consumers' purchase intention on green products (Kautish, Paul & Sharma, 2019; Xu, Hua, Wang & Gui-Fen, 2020; Q. Tong, S. Anders, J. Zhang, & L. Zhang, 2020).

2.2 Review of Variables

2.2.1 Green Product

Green products are manufactured with minimal harm to the environment, recyclable, and are made in an environmentally responsible manner (Arseculeratne & Yazdanifard, 2013). Hence, green products are less damaging to the environment and human health (Maichum et al., 2016). The product whose manufacturing and processing minimise the potential for environmental pollution during production, distribution, and consumption (Sembiring, 2021). In the production of food and beverage, using the idea of a sustainable green product is one of the ways to manufacture an environmentally friendly product. Green F&B product can be manufactured by controlling energy and water consumption, eliminating detrimental agricultural practise such as switching to use more F&B plants that are organic (Peleg, 2023). The growing concerns about local and global pollution, global warming, depleting natural resources, and the overabundance of trash have led to the evolution of green products (Srivastava, 2007).

2.2.2 Price of Green Product

Traditional economics defines price as costs, but recent research indicates that prices additionally inform consumers about the value of goods and services (Sharaf & Perumal, 2018). Price of green product is the cost that consumers pay for products that are environmentally friendly (Anjani & Perdhana, 2021)." In general, green products are more expensive than normal products. Additional cost is needed for processing waste in a way that does not contaminate the environment and for upgrading technology while taking the effects of technology use into account (Anjani & Perdhana, 2021). Therefore, Green products are often priced high as the production

cost is high (Sembiring, 2021). Most customers won't be willing to pay higher price unless they obtain the added value of the product, and it is worth the price (Kalama, 2007). For instance, BMS Organics, which sells a wide variety of organic products and healthy food in Malaysia, insists on offering products that are free of pollutants. Their products are priced slightly higher than normal products (Why BMS Organics, n.d.).

2.2.3 Promotion of Green Product

Promotional activities are typically carried out by a company to increase brand exposure and public awareness of the products or services they offer. Green promotion involves using a variety of media such as advertisements, marketing materials, signs, social media, websites, and more to leave a positive impression in the consumer minds. Hasan and Ali (2015) stated that promotion serves as an effective tool to show a company's commitment to environmental concerns to consumers. It provides consumers the confidence that their choices are in line with environmentally sustainable values. Green advertising is a powerful instrument for promotion since it conveys a message that appeals to consumers who are concerned about the environment (Gandhi & Mayur, 2013). In green advertising, the company showcases its dedication to the environment by stating its commitment, outlining changing procedures, and detailing specific actions taken for environmental improvement (Rahbar & Wahid, 2011). For illustration, showcasing corporate social responsibility (CSR) initiatives can be part of green promotion. This may have a positive effect on customers' perceptions of the company.

2.2.4 Packaging of Green Product

Green packaging also known as eco-packaging, which uses eco-friendly materials for packaging. These materials are intended to be recyclable, reusable, or biodegradable (Nguyen, Yên-Khanh & Thuan, 2021). These packaging do not include chemicals and pollutants that are detrimental to the environment and the consumers. Packaging is among the product features that consumers consider when purchasing environmentally friendly products (Nguyen, N., Nguyen, L.H.A., & Tran, T.T., 2021). For example, customers tend to favour paper over plastic in terms of packaging. Approximately 74% of consumers are willing to pay premium for packaging that is environmentally friendly, according to research conducted by Trivium Packaging (Contributor, 2021). Businesses begin to use sustainable and environmentally friendly packaging to meet environmental objectives and enhance their company's reputation. This is because customers typically care equally about a product's packaging as they do about its contents.

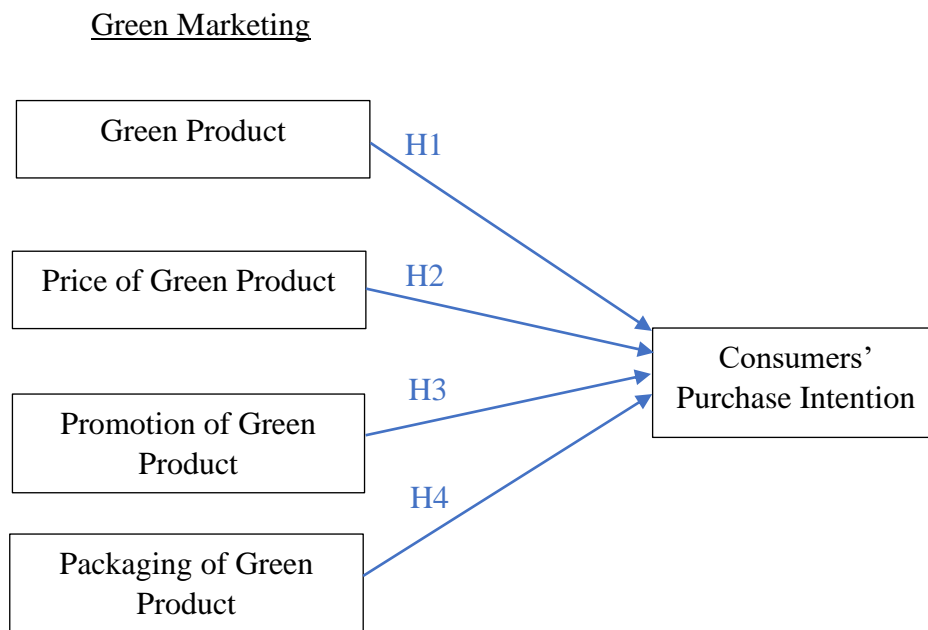
2.2.5 Consumers' Purchase Intention

The desire to own an item is known as buying interest or purchase intentions. It develops when a consumer is influenced by the product's quality and quality, information about the product or service. Purchase interest is the potential for a customer to make a future purchase of a product or service. Consumers with positive purchase intentions are more likely to make the actual purchase, while those with negative intentions are less likely to do so (Sembiring, 2021). One major aspect influencing purchase intentions is the rising emphasis on sustainability. Customers are becoming more conscious of how products affect the environment, considering elements like sustainable manufacturing processes and environmentally friendly packaging and so on. Therefore, green consumers will decide to purchase

the environmentally friendly goods and services that benefit the environment (Cam, 2023).

2.3 Conceptual Framework

Figure 2.0 Conceptual Framework



A theoretical framework was formed and put to the test based on the literature reviews above. It can be seen that the impact of green marketing of food and beverage on consumers' purchase intention can be influenced by the green product, price, promotion, and packaging of green product.

2.4 Hypotheses Development

2.4.1 Green Product

F&B is at the leading edge when it comes to sustainability. F&B has an overall sustainability score of 48.9, trailing behind Construction, which scored 49.4, according to studies conducted by ESG consultants EcoVadis (Peleg, 2023). Nowadays, consumers tend to change their behaviour by purchasing green F&B product to mitigate environmental impact through consumption. The existence of green products will enhance customer motivation to create value in the perception of consumers, which will impact their purchase intention (Anjani & Perdhana, 2021). Green products are more effective and of higher quality, as well as provide customers additional benefits, such as improved health (Wu & Chen, 2016). Hence, green consumers often seek for green F&B products rather than normal goods when shopping. According to current research, consumers' purchase intentions are significantly impacted by green products (Karunaratna et al., 2020).

H1: There is a positive relationship between green product and consumers' purchase intention.

2.4.2 Price of Green Product

According to Gleim et al. (2013), the price of green products and extra costs associated with their usage affect consumers' decisions to purchase. For the non-green consumers, they are less willing to spend additional on environmentally friendly goods (Chekima, B., Wafa, S.A.W.S.K., Igau, O.A., Chekima, S., & Sondoh, S.L., 2016). This is probably due to the fact that green products are relatively more expensive than conventional ones.

The premium price inhibits non-green consumers who are typically hesitant to acquire information and evaluate the long-term advantages of consuming the green F&B products (Zhao, Gao, Wu, Wang & Zhu, 2014). To remain competitive, the prices need to be reasonable. Boztepe (2012) noted that a price that is greater compared to the competitors may be interpreted by some consumers as an indication of the green products with higher quality and environmental friendliness. On the other hand, several studies have revealed that a significant number of consumers are willing to pay an extra 5% to 23% of the premium price to purchase environmentally friendly products, viewing this willingness as a sign of readiness or eagerness to engage in environmentally friendly practices (Chekima et al., 2016).

H2: There is a positive relationship between price of green product and consumers' purchase intention.

2.4.3 Promotion of Green Product

Businesses that implement the promotion method on green product will substantially engage in ongoing communication to raise public awareness of the green products they sell. Consequently, it will instil value in the minds of customers, influencing their purchase intention (Anjani & Perdhana, 2021). Green advertising intends to influence consumers' purchasing decisions by persuading them to purchase goods that do not harm the environment and highlighting the benefits of their purchase decisions (Rahbar & Wahid, 2011). Prior research indicates that promotion of green product has a major impact on consumers' purchase intention (Anjani & Perdhana, 2021). This promotion strengthens the green image and influences consumers to switch to green products, by emphasising the environmental advantages of green products and how it complements a sustainable lifestyle (D'Souza, Taghian, Lamb & Peretiatko, 2006). Thus,

several studies proves that green marketing techniques persuade customers to change their traditional buying patterns and incline towards eco-friendly goods and services. (Boztepe, 2012; Mahmoud, 2018; Karunarathna et al., 2020)

However, concerns around environmental promotion campaigns are widespread among consumers (Sembiring, 2021). This is due to the statement made by the company in an advertisement about the green products might not be true. Scepticism toward environmental claims has increased due to greenwashing, posing a hindrance to the effectiveness of green marketing (Chen, Lin & Chang, 2013). Actual green claims would face more scepticism because it is difficult for consumers to distinguish between the trustworthiness of green marketing promotions (De Freitas Netto, Sobral, Ribeiro & Da Luz Soares, 2020). As a result, this situation may influence the purchase intention of the consumers.

H3: There is a positive relationship between promotion of green product and consumers' purchase intention.

2.4.4 Packaging of Green Product

One of a product's most important elements is its packaging, which may effectively reach consumers and convey important information that influences their purchasing decisions (Zakersalehi & Zakersalehi, 2012). Pan, Lei, Wu & Wang (2021) found that packaging of green product has a significant effect on consumers' purchase intention. According to Zakersalehi and Zakersalehi (2012), eco-friendly packaging draws customers' attention, positions the goods in their minds, and sets them apart from competitors. Packaging communicates with consumers and influences their decision-making. There are 45.5 percent of respondents in

Zakersalehi's study agreed that they would purchase the food and beverages with green packaging in the future. Also, consumers are willing to give up their preferred brand in exchange for environmentally friendly packaging products (Van Birgelen, Semeijn & Keicher, 2008). Hence, the use of green packaging is a factor influencing consumer purchase decisions and may impact purchase intentions.

H4: There is a positive relationship between packaging of green product and consumers' purchase intention.

2.4.5 Consumers' Purchase Intention

Consumers with high environmental awareness are more likely to have a strong purchase intention toward environmentally friendly products or services (Straughan & Roberts, 1999). The purchase intention increases when consumers show a high level of interest in seeking more information about green products through green marketing (Sembiring, 2021). Green marketing efforts is rising globally and have had a significant impact on raising consumer awareness and encouraging the purchase of environmentally friendly goods (Rahbar & Wahid, 2011).

2.5 Chapter Summary

In this chapter, a comprehensive overview of Theory of Planned Behaviour (TPB) is explained. TPB helps in understanding how consumers' attitudes, subjective norms and perceived behavioural control interact to influence the purchase intentions. This chapter focus on four independent variables encompassing green products, price, promotion and packaging of green product and their impact on

consumers' purchase intention (dependent variable). Hypotheses are formulated, indicating the expected relationship between the variables.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter outlines the research methodology used to achieve and validate the study's objectives and hypotheses. The research relies on primary data, and this chapter will explain how the data is collected, analysed, and interpreted to thoroughly address the research questions.

3.1 Research Design

The framework used to carry out a research study is referred to as a research design. It entails laying out the comprehensive plan and approach that will be employed in order to gather and analyse data with the aim of discovering research questions or testing hypotheses (Singh, 2024). This research method aims to give an outline of the study and the methodology used to address issues (Harisandi & Purwanto, 2022).

In this study, quantitative research method is adopted. The scientific method of quantitative research is positivist in nature. It entails gathering fresh information from a significant group and objectively evaluating it without considering the context of the individual's surroundings or feelings. Rather than evaluating the data, the emphasis is on characterising it through choices and behaviours (Rahi, 2017). According to Harisandi and Purwanto (2022), in quantitative research, establishing concepts and obtaining factual data are more important than testing hypotheses or thoroughly examining scenarios in an unbiased, in-depth, and inclusive way.

The causal research method is used in this study. Causal research is also known as explanatory research (Dovetail Editorial Team, 2023). Explanatory research conveys a circumstance or issue typically through the representation of casual

relationships. This kind of study aids in the development, elaboration, extension, or testing of theories by providing fresh viewpoints into various situations. The main goal of explanatory research is to pinpoint the problems and important variables within a certain research problem.

3.2 Sampling Design

The process of selecting a subset of the population for study is known as sampling. It involves selecting a sample of units from a data set for the purpose to evaluate the traits, convictions, and behaviours of individuals (Rahi, 2017). A researcher does not need to choose every item in a population if sampling is used, as the features of a well-chosen sample should align with those of the population as a whole (Zikmund, W. G., Griffin, M., Babin, B. J., & Carr, J. C., 2009). According to Rahi (2017), sampling improved data collecting speed, greater accuracy of the results, and cost effectiveness.

3.2.1 Target Population

A population is any group of individuals or objects that one wants to comprehend (Rahi, 2017). In the view of Malhotra and Birks (2007), a smaller population group can draw conclusions about a bigger population group. This study aims to understand the purchase intention of the food and beverages among Malaysian. Thus, the target population of this study is focused on the Malaysian encompassing both local citizens and those who reside in Malaysia.

3.2.2 Sampling Frame

A frame that can be used to draw a sample of the target population is known as a sampling frame (Rahi, 2017). This study was conducted through non-probability sampling. Thus, a sampling frame is not required.

3.2.3 Sampling Technique

It is usually not feasible for researchers to analyse the entire population due to limitations like time and resources. Thus, sampling techniques are used to lower the number of cases (Taherdoost, 2016). Sampling technique consists of two types, namely probability sampling and non-probability sampling (Alvi, 2016). Probability sampling is also known as random sampling. With probability sampling, there is an equal chance of selection for every unit in the sample. While non-probability sampling is entirely determined by judgement (Sharma, 2017). It is unknown or unclear what the probability is for each unit to be chosen (Rahi, 2017).

Non-probability is separated into few categories which are convenience sampling, snowball sampling, quota sampling and judgment sampling (Rahi, 2017). Non-probability sampling is used in this study with convenience sampling. Convenience sampling refers to a method of gathering data from a population that is easily accessible and nearby for the researcher (Rahi, 2017). Convenience sampling is suitable for this study as it makes it possible to test a large number of survey respondents in a short period of time (Karunarathna et al., 2020). Furthermore, convenience sampling has been used as the sampling method in similar research studying the attitudes and behaviour of consumers towards green products and marketing tactics (Fernando, V., Abeysekara, N., Samarasinghe, G. D., & Kuruppu, G. N., 2017; Michaelidou & Hassan, 2007). Using this sampling technique, this study is able to gather data from the sample of target population

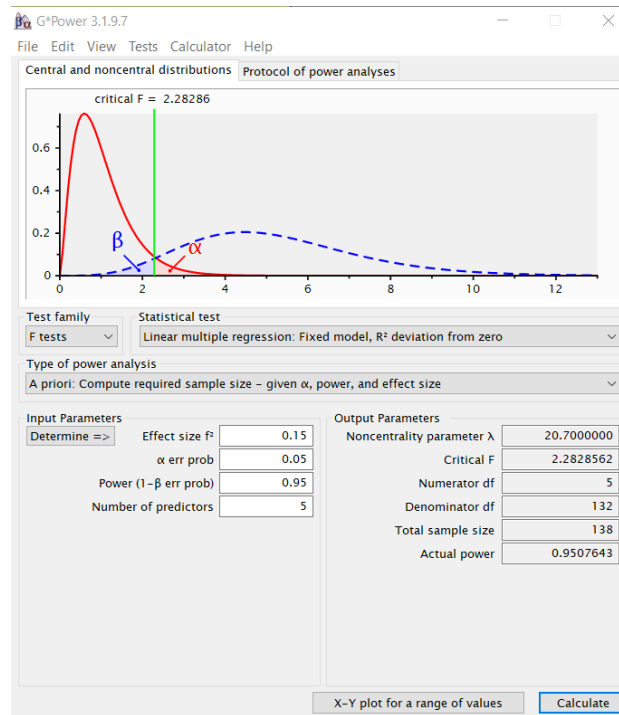
encompassing Malaysian and those who reside in Malaysia, thereby facilitating the process of data collection.

3.2.4 Sample Size

The number of individuals involved in a study is referred to as the sample size. Determining an appropriate sample size have grown to be important research concerns (Kang, 2020). It is important to determine the sample size as it can affect the reliability of the results (Coursera, 2023). G*Power is a software that is free and user-friendly tool for calculating sample size and power for a variety of statistical procedures, including F, t, χ^2 , Z, and exact tests (Kang, 2020). F tests is used in G power calculator to calculate the sample size for this study. By inserting the number of indicators which is 5 as there are 4 independent variables and 1 dependent variables in this study, a total sample size of 138 is calculated, as shown in Figure 3.0.

However, Comrey and Lee (2013) indicated that poor is denoted by a score of 100, fair by 200, good by 300, very good by 500, and excellent by 1,000 or more. Şahin and Anıl (2017) suggested that the sample size of 200 is appropriate and fairly sufficient. Also, sample size of 200 provide adequate survey accuracy given the majority of project assumptions. Thence, a sample size of 200 is appropriate for this study as it generates more accurate and representative data, enhances estimate precision, and lowers sample errors (Minsel, 2018).

Figure 3.0: G*Power Calculation



Source: G*Power Calculator

3.3 Data Collection Methods

3.3.1 Primary Data

Primary data refers to data gathered by researchers directly from primary sources through methods such as interviews, surveys, experiments, and so on. The data collection method used in this study is primary data, collected via questionnaire. Primary data is the information gathered by the researcher for the first time, and it is genuine and factual (Ajayi, 2017). A Google survey form is created to gather to primary data needed for this study. This questionnaire aims to collect the responses from the Malaysian and those who reside in Malaysia. The survey form is distributed to the public via WhatsApp, Instagram, and Facebook. It took two months to receive responses from 200 respondents between January 2024 and February 2024.

3.3.2 Research Instrument

3.3.2.1 Questionnaire Design

In this study, an online questionnaire is utilized as a research instrument in this study. As mentioned above, this questionnaire is distributed via Google Forms. A brief introduction about the questionnaire is provided at the very beginning of the google form, followed by personal data protection notice. There are two sections in this questionnaire. Section A is designated to gather the demographic information from the respondents which is consists of the gender, age, ethnicity, marital status, education level, employment status and monthly income of the respondents.

Meanwhile in Section B, it seeks to collect respondents' viewpoint regarding the impact of green marketing of food and beverages on consumers' purchase intention. All the question in Section B is related to the four independent variables and one dependent variable. Table 3.0 shows the construct measurements of how the questionnaire is developed.

3.3.2.2 Questionnaire Development

Table 3.0: Construct Measurements

No	Variables	Items Measurement	Sources
1		My purchase intention is influence by the availability of green food and beverage (F&B) products.	(Anjani & Perdhana, 2021)
2		I have previously bought eco-friendly products.	(Lin & Huang, 2012)

3		I prefer to purchase food and beverages that are eco-friendly.	(Yeng, Yazdanifard & Wong, 2015)
4	Green Product	I trust that green F&B products have higher quality compared to non-green products.	(Wu & Chen, 2016)
5		I trust that green F&B products provide health benefits compared to non-green products.	
6		As a consumer, I have the responsibility to choose green products to protect the environment.	(Yue, Sheng, She & Xu, 2020)
7	Price of Green Product	My purchase intention is influence by the price of the eco-friendly food and beverages.	(Chekima, Wafa, Igau, Chekima & Sondoh, 2016)
8		I prefer to pay more for the food and beverages that are eco-friendly.	(Anjani & Perdhana, 2021a)
9		I prioritize choosing green F&B products even though the price is higher.	(Yenipazarli & Vakharia, 2015)
10		I believe that eco-friendly food and beverages offer better value for the money when considering their environmental impact.	(Kalama, 2007).
11		The price of green F&B product is reasonable.	(Jang, Kim & Bonn, 2011)
12		My purchase intention is influence by advertisements and campaigns that highlight the environmental benefits of food and beverages.	(Anjani & Perdhana, 2021)

13	Promotion of Green Product	I have seen many food and beverage products with green advertising.	(Segev, Fernandes & Cheng, 2015)
14		I prefer to purchase food and beverages with green marketing strategies and promotions.	(Rahbar & Wahid, 2011)
15		I am sceptical about the claim that the product is environmentally friendly.	(De Freitas Netto, Sobral, Ribeiro & Da Luz Soares, 2020)
16		When making purchases, I consider a brand's overall commitment to environmentally friendly and sustainable practises.	(Rahbar & Wahid, 2011)
17	Packaging of Green Product	My purchase intention is influence by the eco-friendly packaging.	(Nguyen, Y�n-Khanh and Thuan, 2021)
18		I am attracted by the food and beverages with green packaging.	(Zakersalehi & Zakersalehi, 2012)
19		I am more willing to purchase food and beverages with eco- friendly packaging.	(A. T. Nguyen et al., 2021)
20		I believe that food and beverages with green packaging has the potential to minimize environmental impact.	(Zakersalehi & Zakersalehi, 2012)
21		Having clear information about a product's environmentally friendly packaging helps me make a purchasing choice.	

22	Purchase Intention	I prefer to purchase the food and beverages that are marketed as green.	(Zhuang, Luo & Riaz, 2021)
23		In the future, my purchasing decisions will be heavily influenced by environmental factors.	(Suki, Suki & Azman, 2016)
24		Over the last six months, I have had green purchasing intention.	(Nguyen, N., Nguyen, L.H.A., & Tran, T.T., 2021)
25		I believe that selecting green food and beverages will contribute to societal well-being and this will affect my intention to purchase green products.	(Suki, Suki & Azman, 2016)
26		I am more inclined toward purchasing green F&B products in the future times.	(Cam, 2023)

3.3.2.3 Pilot test analysis

Every study begins by performing a pilot test to ensure sure validity is attained. It is described as a pre-test version of a research tool used before the real study is carried out. It aids in the early detection of potential defects by pointing out potential issues and areas where the instrument may need to be adjusted (Gani, A., Imtiaz, N., Rathakrishnan, M., & Krishnasamy, H., N., 2020). Pilot testing is important to ensure that the questionnaire is worded correctly, and it is also important to the overall success of the study (Wadood, F., Akbar, F., & Ullah, I., 2024). Hill (1998) recommended a pilot

testing range of 10 to 30 people for survey research. Therefore, sample size of 30 is sufficient to conduct the pilot test.

The reliability test results of 30 responses chosen for the pilot test are shown in Table 3.1. The number of items examined in the reliability test and the coefficient of Cronbach's alpha for each construct are indicated. The rule of thumb for reliability testing is that Cronbach's Alpha must be larger than 0.6 (Subaida & Hakiki, 2020). Therefore, all the variables are reliable refer to the rule of thumb in Table 3.2.

Table 3.1: Reliability test for pilot study

Variables	Number of Items	Cronbach's Alpha
Green Product	6	0.853
Price of Green Product	5	0.845
Promotion of Green Product	5	0.832
Packaging of Green Product	5	0.830
Consumers' Purchase Intention	5	0.900

Source: Developed for the research

Table 3.2: Cronbach's Alpha Rule of Thumb

Cronbach's Alpha	Reliability Level
$\alpha \geq 0.90$	Excellent
$0.80 \leq \alpha < 0.90$	Good
$0.70 \leq \alpha < 0.80$	Acceptable
$0.60 \leq \alpha < 0.70$	Questionable
$0.50 \leq \alpha < 0.60$	Poor
$\alpha < 0.50$	Unacceptable

Source: Saidi, S. S., & Siew, N. M. (2019). Investigating the Validity and Reliability of Survey Attitude towards Statistics Instrument among Rural

Secondary School Students. *International Journal of Educational Methodology*, 5(4), 651–661. <https://doi.org/10.12973/ijem.5.4.651>

3.5 Scale Measurement

Table 3.3: Measurement Scale of Demographic Questions

Section	Items	Measurement Scales
A	Gender	Nominal
	Age	Nominal
	Ethnicity	Nominal
	Marital Status	Nominal
	Education Level	Nominal
	Employment Status	Nominal
	Monthly Income	Nominal

3.5.1 Nominal

In terms of measurement, nominal scales are the most basic. An object is given a value using a nominal scale solely for classification or identification purposes. The nominal scale does not indicate any amounts. The researcher aims to gather information on a variable by sorting the data into two or more mutually exclusive categories (Zikmund et al., 2009). Table 1.1 shows that in the questionnaire under demographic questions, gender, age ethnicity, marital status, education level, employment status and monthly income are all categorized as nominal scale questions.

3.5.3 Likert Scale

Likert scale questionnaire is the most popular type of instrument to measure affective variables such as self-efficacy and motivation (“Developing Likert-Scale Questionnaires,” 2014). Using a Likert scale, participants express their opinions by marking how much they agree or disagree with the statements. Opinions might range from extremely positive to extremely negative for a certain item (Zikmund et al., 2009). A 5-point Likert scale is employed in this study where respondents need to select from the scale 1 to 5. These options link to the degrees of agreement, ranging from Strongly Disagree to Strongly Agree. Using Likert scale makes it easier for the respondents to understand and response. They choose only one of the options that best reflects their thought.

3.6 Data Analysis Tool

Statistical Package for Social Sciences (SPSS) and Microsoft Excel were the software used to conduct the data analysis in this study. This study employs both descriptive and inferential analysis. Descriptive statistics explain how the variables in a sample or population relate to one another. The mean, median, and mode are summary data provided by descriptive statistics. A random sample of data from a population is used in inferential statistics to evaluate and draw conclusions about the entire population. It is useful when it is not feasible to examine every individual in the population (Ali & Bhaskar, 2016).

3.6.1 Descriptive Analysis

Descriptive analysis is a kind of data analysis that assists in the constructive description, display, or summarization of data points so that patterns that satisfy all of the data's condition can be identified (Rawat, 2021). Examining gathered data with the intention of presenting it in an understandable manner. This analysis involves using tables, graphs, charts, or other types of illustrations that assist in demonstrating patterns and trends within the data (Zikmund et al., 2009). It provides a conclusion regarding the distribution of data, aids in the detection of typos and outliers, and helps to recognise patterns among variables (Rawat, 2021).

3.6.2 Inferential Analysis

Inferential analysis refers to applying statistical tools to infer and make predictions of a broader population from the data gathered from a sample. Inferential statistics are employed in the analysis to draw inferences or generalise from a sample to the whole population. Inferential statistics encompasses regression analysis, confidence intervals and hypothesis testing (Zikmund et al., 2009). Regression analysis is performed to comprehend how two variables in a population relate to one another. While a confidence interval is utilised to draw a conclusion about the population mean. Moreover, hypothesis test is conducted to make inferences about populations from sample data (Zach, 2022).

3.7 Chapter Summary

In summary, the methodology used in this study is outlined in this chapter which is causal research method and quantitative research is adopted. A questionnaire is created following the sampling design and is distributed to 200 respondents to understand the impact of green marketing of food and beverage on consumers' purchase intention. The data analysis technique adopted in this research are descriptive analysis and inferential analysis by using SPSS and Microsoft Excel software.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

This chapter includes the discussion of data analysis. By converting collected raw data into valuable information, the issue can be comprehended. An extensive overview of the descriptive and inferential analysis will be presented in this chapter based on the data collected by using Statistical Package for Social Science (SPSS) Statistics.

4.1 Descriptive Analysis

4.1.1 Demographic of Respondents

In this section, the demographics of the respondents were analysed. This encompasses gender, age, ethnicity, marital status, educational level, employment status, and monthly income.

4.1.1.1 Gender

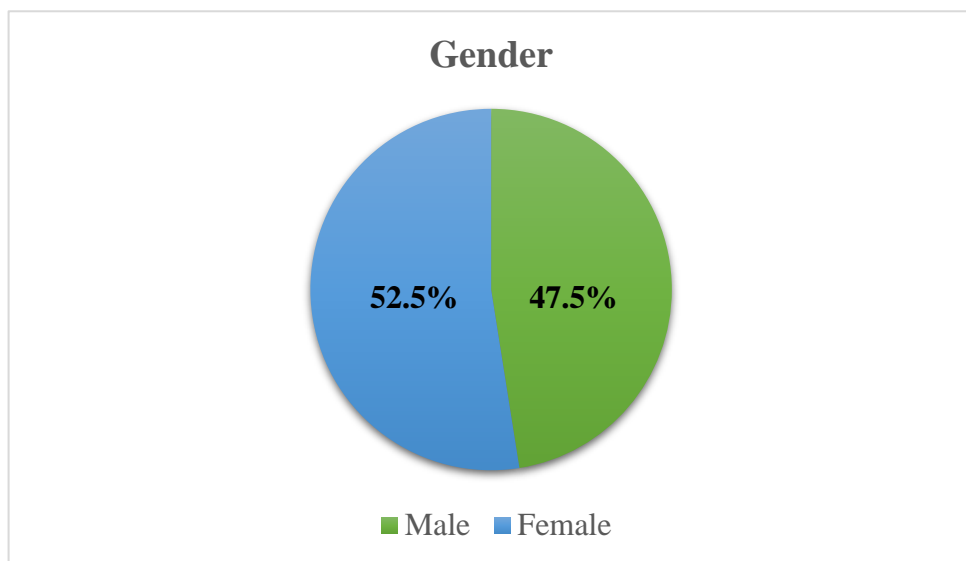
In terms of gender, the ratio between males and females is nearly symmetrical. Out of 200 respondents, 47.5% are male, while 52.5% are female. The data are illustrated in Table 4.0 where 95 out of 200 are male and 105 out of 200 are female. Figure 4.0 gives a clearer picture of the distribution among males and females.

Table 4.0: Table of Gender

Items	Frequency	Percentage (%)
Male	95	47.5
Female	105	52.5
Total	200	100

Source: Developed for the research

Figure 4.0: Pie Chart of Gender



4.1.1.2 Age

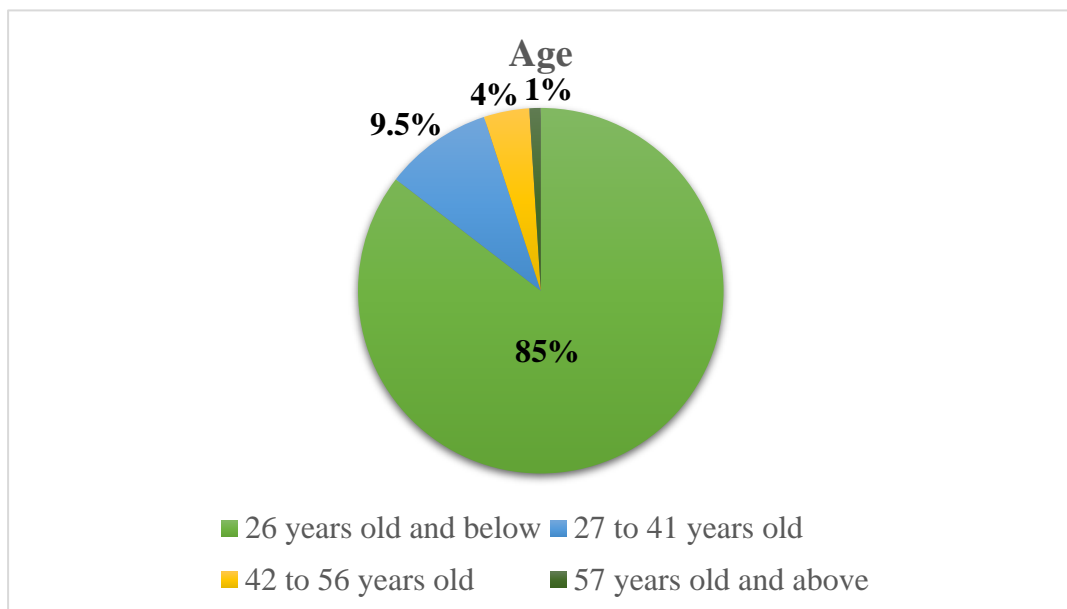
According to Table 4.1 summarised from the survey results, the majority of respondents are below the ages of 26. 171 of the respondents are from the group 26 years old and below, which accounts for 85.5%. Meanwhile, 19 of the respondents (9.5%) fall under the age group 27 to 41 years old, followed by the age group of 42 to 56 years old with 8 respondents (4%). The age group of 57 years old and above comprises only 1%, with 2 respondents.

Table 4.1: Table of Age

Items	Frequency	Percentage (%)
26 years old and below	171	85.5
27 to 41 years old	19	9.5
42 to 56 years old	8	4
57 years old and above	2	1
Total	200	100

Source: Developed for the research

Figure 4.1: Pie Chart of Age



4.1.1.3 Ethnicity

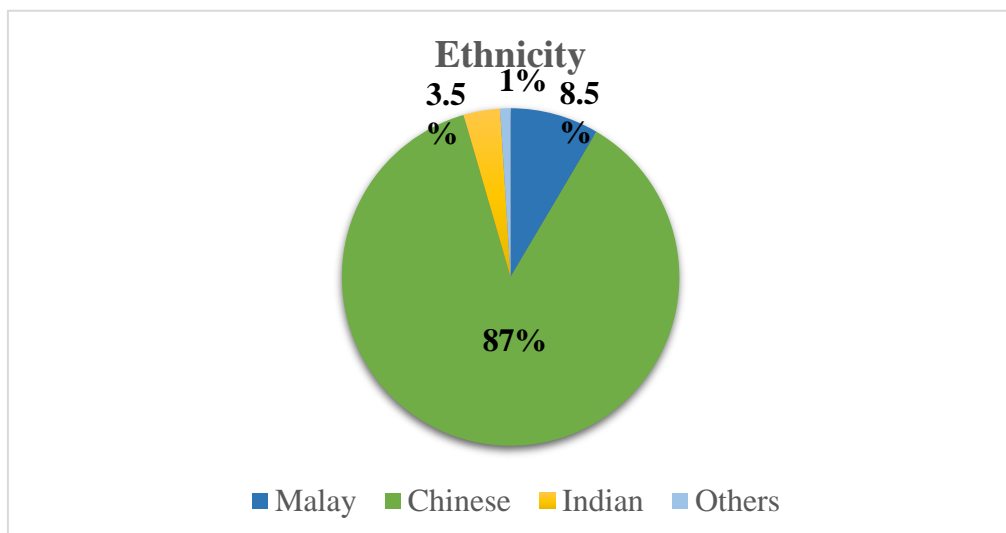
Figure 4.2 shows that the majority of respondents are Chinese, accounting for 87% of the total. This indicates that out of 200 respondents, 174 are Chinese. There are 17 out of 200 are Malay which accounted for 8.5%, followed by Indian which accounted for 3.5%. This indicated that 7 out of 200 are Indians. 2 out of 200 are others ethnicity which accounted for only 1%.

Table 4.2: Table of Ethnicity

Items	Frequency	Percentage (%)
Malay	17	8.5
Chinese	174	87
Indian	7	3.5
Others	2	1
Total	200	100

Source: Developed for the research

Figure 4.2: Pie Chart of Ethnicity



4.1.1.4 Marital Status

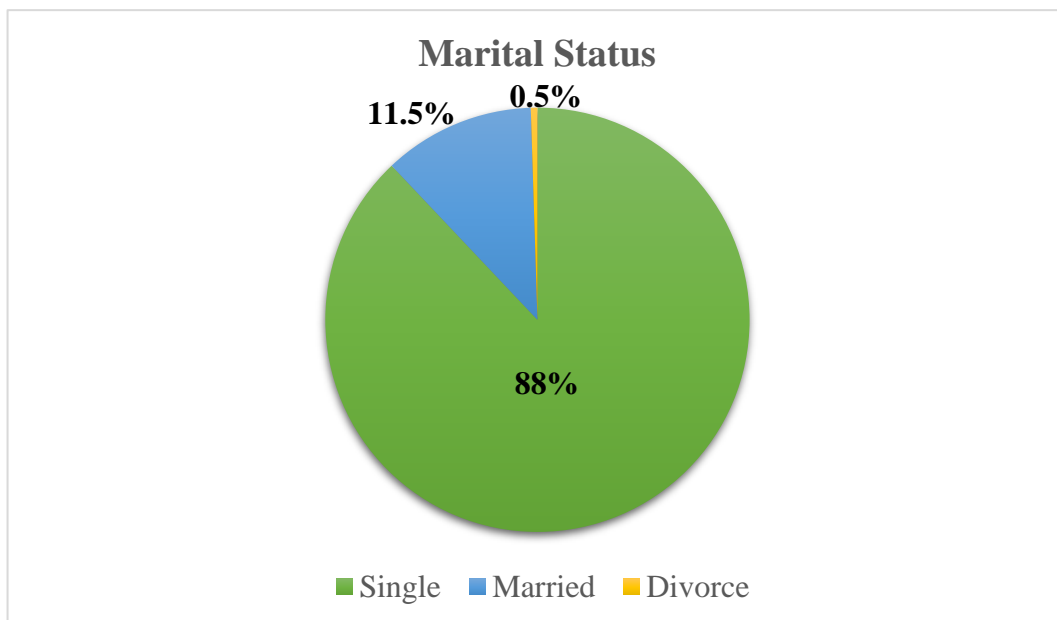
The results show that majority of respondents are single, accounting for 88%. Out of the 200 respondents, 176 are single. Respondents who are married consist of 23 which accounted for 11.5%. Only 1 respondent is divorced, accounting for just 0.5%.

Table 4.3: Table of Marital Status

Items	Frequency	Percentage (%)
Single	176	88
Married	23	11.5
Divorce	1	0.5
Total	200	100

Source: Developed for the research

Figure 4.3: Pie Chart of Marital Status



4.1.1.5 Education Level

Majority of the respondents own a bachelor's degree, suggesting a fairly high level of education. Among 200 of the respondents, 160 are bachelor's degree, accounting for 80%. Meanwhile, 21 of the respondents who have a foundation qualification, accounting for 10.5%, followed by diploma holders who form the 7%. There are 14 out of 200 of respondents are

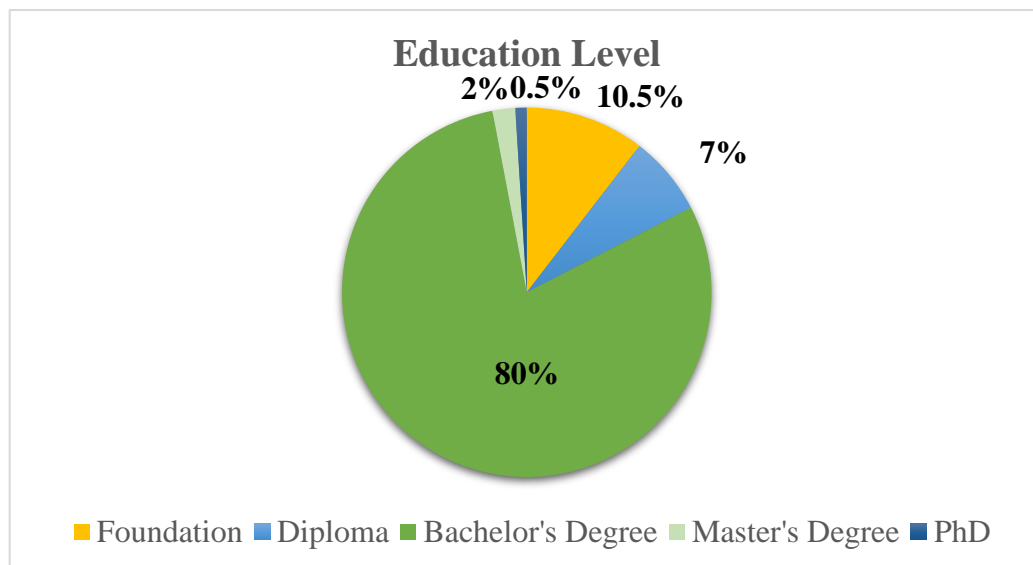
Diploma holders. Moreover, respondents with master's degree and PhD consists of 4 respondents (2%) and 1 respondent (0.5%) respectively.

Table 4.4: Table of Education Level

Items	Frequency	Percentage (%)
Foundation	21	10.5
Diploma	14	7
Bachelor's Degree	160	80
Master's Degree	4	2
PhD	1	0.5
Total	200	100

Source: Developed for the research

Figure 4.4: Pie Chart of Education Level



4.1.1.6 Employment Status

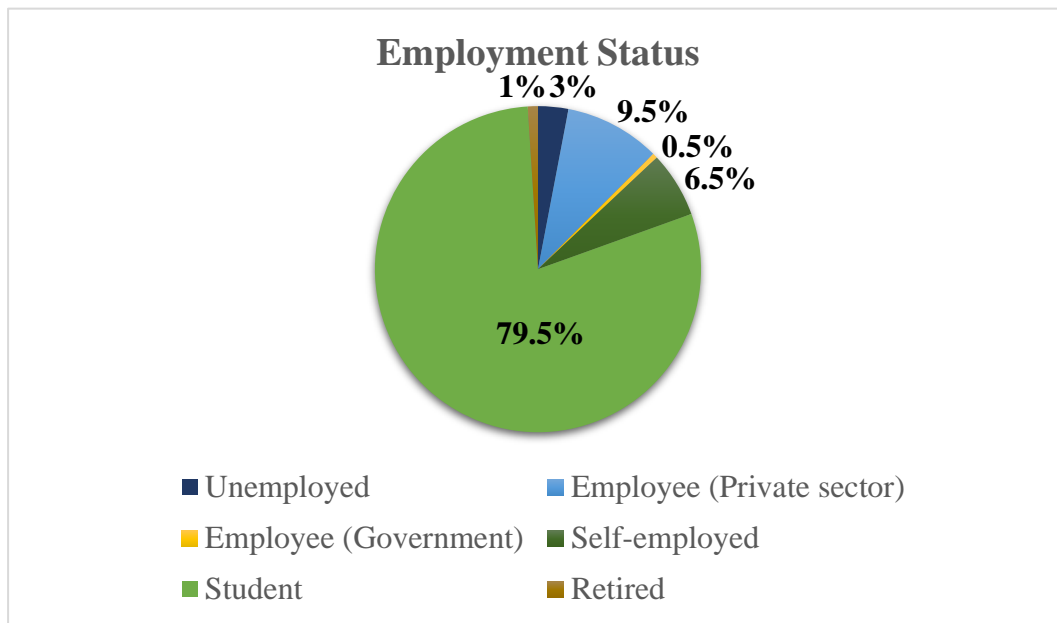
According to the statistics show in Figure 4.5, most of the respondents are student, making up 79.5% with 159 of respondents among the 200. 9.5% of employees from the private sector are represented by 19 respondents. Meanwhile, 13 of the respondents are self-employed, accounting for 6.5%. Additionally, 6 of the respondents are unemployed, constitute of 3%. Furthermore, 1% of retired respondents are represented by 2 individuals. There is only 1 respondent are employee from government sector which account for only 0.5%.

Table 4.5: Table of Employment Status

Items	Frequency	Percentage (%)
Unemployed	6	3
Employee (Private sector)	19	9.5
Employee (Government)	1	0.5
Self-employed	13	6.5
Student	159	79.5
Retired	2	1
Total	200	100

Source: Developed for the research

Figure 4.5: Pie Chart of Employment Status



4.1.1.7 Monthly Income

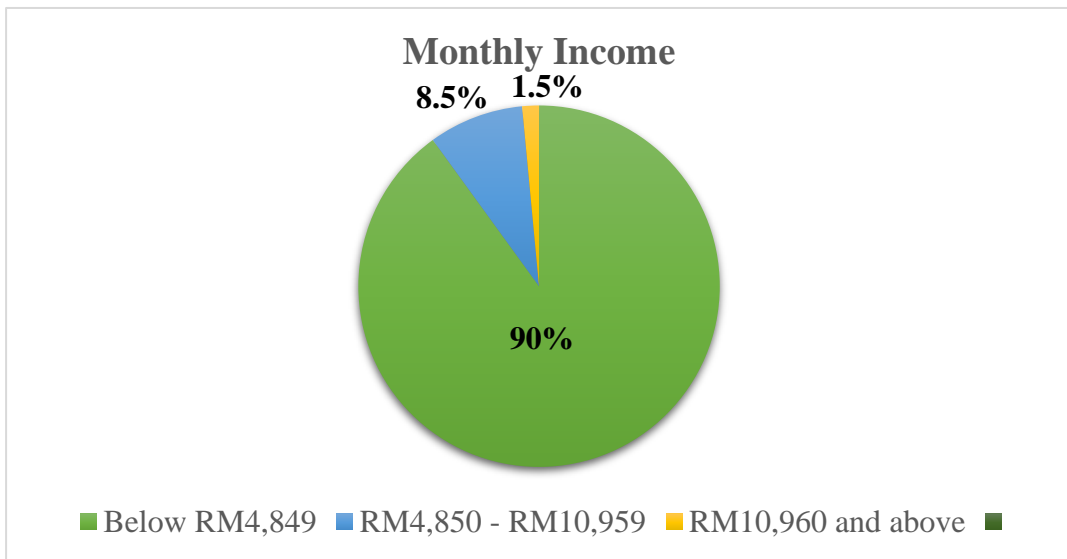
Based on Figure 4.6, it is indicated that among of the 200 respondents, 180 of the respondents' monthly income are below Rm4,849, which form 90%. There are 17 respondents with monthly income between Rm4850 and RM10,959, which constitute of 8.5% in total. Only 3 respondents have monthly income from RM10,960 and above which account for 1.5%.

Table 4.6: Table of Monthly Income

Items	Frequency	Percentage (%)
Below RM4,849	180	90
RM4,850 - RM10,959	17	8.5
RM10,960 and above	3	1.5
Total	200	100

Source: Developed for the research

Figure 4.6: Pie Chart of Monthly Income



4.1.2 Independent Sample T-test

4.1.2.1 Gender

Table 4.7: Group Statistics of Gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Consumers' Purchase Intention	Male	95	4.11	.782	.080
	Female	105	4.07	.795	.078

Source: Developed for the research

Table 4.8: Independent Samples Test of Gender

		t-test for Equality of Means		
		t	df	Sig. (2-tailed)
Consumer's Purchase Intention	Equal variances assumed	.353	198	.725
	Equal variances not assumed	.353	196.620	.724

Source: Developed for the research

An independent sample t-test was conducted to compare the consumers' purchase intention (dependent variable) between male and female. There was no significant difference in the scores for male (M=4.11, SD=0.782) and female (M=4.07, SD=0.795); $t(198) = 0.353$, $p\text{-value} = 0.725$. These results of $p\text{-value}$ greater than 0.05 indicates that any observed variation in the scores for purchase intentions between males and females is probably not the result of actual gender differences, but rather random variability.

4.1.3 One-Way ANOVA

4.1.3.1 Age

Table 4.9: Descriptives of Age

<u>Age</u>	<u>N</u>	<u>Mean</u>	<u>Std. Deviation</u>	<u>Std. Error</u>
26 years old and below	171	4.14	.801	.061
27 to 41 years old	19	3.89	.661	.152
42 to 56 years old	8	3.78	.680	.240
57 years old and above	2	3.50	.707	.500

Source: Developed for the research

Table 4.10: Table of ANOVA (Age)

	<u>df</u>	<u>F</u>	<u>Sig.</u>
Between Groups	3	1.402	.244
Within Groups	196		

Source: Developed for the research

One-Way ANOVA is conducted to examine the impact of different range of ages on consumers' purchase intention. At the $p < 0.05$ level, there was no significant effect of age groups on consumers' purchase intention for three conditions, $F(3,196) = 1.402$, $p = 0.244$.

4.1.3.2 Ethnicity

Table 4.11: Descriptives of Ethnicity

Ethnicity	N	Mean	Std. Deviation	Std. Error
Malay	17	3.92	.721	.175
Chinese	174	4.11	.788	.060
Indian	7	4.00	1.000	.378
Others	2	4.50	.707	.500

Source: Developed for the research

Table 4.12: Table of ANOVA (Ethnicity)

	df	F	Sig.
Between Groups	3	.513	.674
Within Groups	196		

Source: Developed for the research

One-Way ANOVA is conducted to examine the impact of different ethnicity on consumers' purchase intention. At the $p < 0.05$ level, there was no significant effect of ethnicity on consumers' purchase intention for three conditions, $F(3,196) = 0.513$, $p = 0.674$.

4.1.3.3 Marital Status

Table 4.13: Descriptives of Marital Status

Marital Status	N	Mean	Std. Deviation	Std. Error
Single	176	4.12	.799	.060
Married	23	3.87	.684	.143
Divorce	1	4.00	.	.

Source: Developed for the research

Table 4.14: Table of ANOVA (Marital Status)

	df	F	Sig.
Between Groups	2	1.061	.348
Within Groups	197		

Source: Developed for the research

One-Way ANOVA is conducted to examine the impact of marital status on consumers' purchase intention. At the $p < 0.05$ level, there was no significant effect of marital status on consumers' purchase intention for three conditions, $F(2, 197) = 1.061$, $p = 0.348$.

4.1.3.4 Educational Level

Table 4.15: Descriptives of Educational Level

Educational Level	N	Mean	Std. Deviation	Std. Error
Foundation	21	4.25	.751	.164
Diploma	14	3.90	.701	.187
Bachelor's Degree	160	4.10	.806	.064
Master's Degree	4	3.95	.100	.050
PhD	1	3.00	.	.

Source: Developed for the research

Table 4.16: Table of ANOVA (Educational Level)

	df	F	Sig.
Between Groups	4	.931	.447
Within Groups	195		

Source: Developed for the research

One-Way ANOVA is conducted to examine the impact of different educational level on consumers' purchase intention. At the $p < 0.05$ level, there was no significant effect of educational level on consumers' purchase intention for three conditions, $F(4,195) = 0.931$, $p = 0.447$.

4.1.3.5 Employment Status

Table 4.17: Descriptives of Employment Status

Employment Status	N	Mean	Std. Deviation	Std. Error
Unemployed	6	4.33	.450	.184
Employee (Private sector)	19	3.67	.671	.154
Employee (Government)	1	3.00	.	.
Self-employed	13	4.03	.632	.175
Student	159	4.15	.806	.064
Retired	2	3.50	.707	.500

Source: Developed for the research

Table 4.18: Table of ANOVA (Employment Status)

	df	F	Sig.
Between Groups	5	2.062	.072
Within Groups	194		

Source: Developed for the research

One-Way ANOVA is conducted to examine the impact of different employment status on consumers' purchase intention. At the $p < 0.05$ level, there was no significant effect of employment status on consumers' purchase intention for three conditions, $F(5,194) = 2.062$, $p = 0.072$.

4.1.3.6 Monthly Income

Table 4.19: Descriptives of Monthly Income

Monthly Income	N	Mean	Std. Deviation	Std. Error
Below RM4,849	180	4.14	.791	.059
RM4,850 - RM10,959	17	3.71	.571	.138
RM10,960 and above	3	3.67	1.155	.667

Source: Developed for the research

Table 4.20: Table of ANOVA (Monthly Income)

	df	F	Sig.
Between Groups	2	2.826	.062
Within Groups	197		

Source: Developed for the research

One-Way ANOVA is conducted to examine the impact of different range of monthly income on consumers' purchase intention. At the $p < 0.05$ level, there was no significant effect of monthly income on consumers' purchase intention for three conditions, $F(2,197) = 2.826$, $p = 0.062$.

4.2 Descriptive Analysis of Variables

The mean and standard deviation of the independent and dependent variables are analysed in this section. The independent variables consist of green product, green price, green promotion, and green packaging, while consumers' purchase intention is the dependent variable.

4.2.1 Mean and Standard Deviation of Green Product

The overall mean value of the independent variable, Green product is approximately 4, as majority of respondents selected Agree and Strongly Agree. Based on Table 4.21, item 5 has the highest ranking with mean value of 4.24 and standard deviation of 0.785, followed by item 5. Item 5 has a mean value of 4.20 and standard deviation of 0.796. While items 2,3, and 6 have mean value of 4.16 and standard deviation of 0.839,0.835 and 0.835 respectively. The lowest ranking is item 1, with mean value of 4.03 and standard deviation of 0.805.

Table 4.21: Mean, Standard Deviation and Question of Green Product

No.	Statement	Mean	Standard Deviation
1.	My purchase intention is influence by the availability of green food and beverage (F&B) products	4.03	0.805
2.	I have previously bought eco-friendly products.	4.16	0.839
3.	I prefer to purchase food and beverages that are eco-friendly	4.16	0.835
4.	I trust that green F&B products have higher quality compared to non-green products.	4.20	0.796
5.	I trust that green F&B products provide health benefits compared to non-green products.	4.24	0.785
6.	As a consumer, I have the responsibility to choose green products to protect the environment.	4.16	0.835

Source: Developed for the research

4.2.2 Mean and Standard Deviation of Price of Green Product

The overall mean value of the independent variable, Price of Green Product is close to 4, as the majority of respondents selected Agree and Strongly Agree. According to Table 4.22, item 1 has the highest ranking with mean value of 4.17 and standard deviation of 0.809, followed by item 4 and 5. Items 4 and 5 have a mean value of 4.10 and standard deviation of 0.830 and 0.868 respectively. Subsequently, item 2 has a mean value of 4.09 and standard deviation of 0.901. The lowest ranking is item 3, with mean value of 4.04 and standard deviation of 0.953.

Table 4.22: Mean, Standard Deviation and Question of Price of Green Product

No.	Statement	Mean	Standard Deviation
1.	My purchase intention is influence by the price of the eco-friendly food and beverages.	4.17	0.809
2.	I prefer to pay more for the food and beverages that are eco-friendly.	4.09	0.901
3.	I prioritize choosing green F&B products even though the price is higher.	4.04	0.953
4.	I believe that eco-friendly food and beverages offer better value for the money when considering their environmental impact.	4.10	0.830
5.	The price of green F&B product is reasonable.	4.10	0.868

Source: Developed for the research

4.2.3 Mean and Standard Deviation of Promotion of Green Product

The overall mean value of the independent variable, Promotion of Green Product is close to 4, as the majority of respondents selected Agree and Strongly Agree. Despite item 4 which has a mean value of 2.37 and standard deviation of 0.813. Based on Table 4.23, item 2 and 5 has the same highest ranking with a mean value of 4.15 and standard deviation of 0.853 and 0.875 accordingly. Subsequently, item 3 has a mean value of 4.14 and standard deviation of 0.825. While item 4 has a mean value of 4.12 and standard deviation of 0.834.

Table 4.23: Mean, Standard Deviation and Question of Promotion of Green Product

No.	Statement	Mean	Standard Deviation
1.	My purchase intention is influence by advertisements and campaigns that highlight the environmental benefits of food and beverages.	4.12	0.834
2.	I have seen many food and beverage products with green advertising.	4.15	0.853
3.	I prefer to purchase food and beverages with green marketing strategies and promotions.	4.14	0.825
4.	I am sceptical about the claim that the product is environmentally friendly.	2.37	0.813
5.	When making purchases, I consider a brand's overall	4.15	0.875

commitment to environmentally friendly and sustainable practises.

Source: Developed for the research

4.2.4 Mean and Standard Deviation of Packaging of Green Product

The overall mean value of the independent variable, Packaging of Green Product is near to 4, as the majority of respondents selected Agree and Strongly Agree. According to Table 4.24, item 4 has the highest ranking with mean value of 4.17 and standard deviation of 0.788, followed by item 2. Item 2 has a mean value of 4.09 and standard deviation of 0.828. Subsequently, item 3 has a mean value of 4.08 and standard deviation of 0.835. Meanwhile, item 1 has a mean value of 4.07 with standard deviation of 0.874. The lowest ranking is item 5, with mean value of 4.06 and standard deviation of 0.806.

Table 4.24: Mean, Standard Deviation and Question of Packaging of Green Product

No.	Statement	Mean	Standard Deviation
1.	My purchase intention is influence by the eco-friendly packaging.	4.07	0.874
2.	I am attracted by the food and beverages with green packaging.	4.09	0.828

3.	I am more willing to purchase food and beverages with eco-friendly packaging.	4.08	0.835
4.	I believe that food and beverages with green packaging has the potential to minimize environmental impact.	4.17	0.788
5.	Having clear information about a product's environmentally friendly packaging helps me make a purchasing choice.	4.06	0.806

Source: Developed for the research

4.2.5 Mean and Standard Deviation of Consumers' Purchase Intention

The overall mean value of the dependent variable, Consumers' Purchase Intention is approximately 4, as the majority of respondents selected Agree and Strongly Agree. Table 4.25 indicates that item 4 has the highest ranking with mean value of 4.16 and standard deviation of 0.784. While item 5 has a mean value of 4.10 with standard deviation of 0.808. Subsequently, item 1 has a mean value of 4.09 and standard deviation of 0.803. Item 2 has a mean value of 4.07 and standard deviation of 0.860. The lowest ranking is item 3, with mean value of 4.05 and standard deviation of 0.867.

Table 4.25: Mean, Standard Deviation and Question of Consumers' Purchase Intention

No.	Statement	Mean	Standard Deviation
1.	I prefer to purchase the food and beverages that are marketed as green.	4.09	0.803
2.	In the future, my purchasing decisions will be heavily influenced by environmental factors.	4.07	0.860
3.	Over the last six months, I have had green purchasing intention.	4.05	0.867
4.	I believe that selecting green food and beverages will contributes to societal well-being and this will affect my intention to purchase green products.	4.16	0.784
5.	I am more inclined toward purchasing green F&B products in the future times.	4.10	0.808

Source: Developed for the research

4.3 Reliability Test

The Cronbach's Alpha for the independent and dependent variables is shown in Table 4.6. This reliability test examined a total of 26 items.

Table 4.26: Reliability Test

Variables	Number of Items	Cronbach's Alpha	Results of Reliability
Green Product	6	0.962	Excellent
Price of Green Product	5	0.954	Excellent
Promotion of Green Product	5	0.739	Acceptable
Packaging of Green Product	5	0.969	Excellent
Consumers' Purchase Intention	5	0.975	Excellent

Source: Developed for the research

According to Table 4.26, packaging of green product has the highest Cronbach's Alpha of 0.969. Meanwhile, promotion of green product has the lowest Cronbach's Alpha which is 0.739. The Cronbach's Alpha for green product is 0.962, price of green product is 0.954 and consumers' purchase intention is 0.975.

Referring to the rule of thumb in Table 3.2 in Chapter 3, all the items are reliable as all of the variables are larger than 0.6. Cronbach's Alpha value of green product, price and packaging of green product as well as consumers' purchase intention represents all the variables have excellent reliability as the value are within the range of ≥ 0.90 . While the Cronbach's Alpha value of promotion of green product falls between the range of $0.80 \leq 0.90$ which represents the variable has good reliability.

4.4 Inferential Analysis

Pearson correlation analysis and multiple regression analysis are employed in this study to examine the relationship between the independent and dependent variables.

4.4.1 Pearson Correlation Analysis

Table 4.27: Table of Pearson Correlation Analysis

		GP	GPr	GPro	GPack	PI
Green Product (GP)	Pearson Correlation	1				
	Sig. (2-tailed)					
Price of Green Product (GPr)	Pearson Correlation	.824**	1			
	Sig. (2-tailed)	.000				
Promotion of Green Product (GPro)	Pearson Correlation	.812**	.823**	1		
	Sig. (2-tailed)	.000	.000			
Packaging of Green Product (GPack)	Pearson Correlation	.777**	.784**	.788**	1	
	Sig. (2-tailed)	.000	.000	.000		
Consumers' Purchase Intention (PI)	Pearson Correlation	.750**	.702**	.759**	.804**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

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

Source: Developed for the research

Table 4.28: Correlation Strength

Coefficient Range	Degree of Correlation
± 1	Perfect correlation
± 0.50 to ± 1	High correlation
± 0.30 to ± 0.49	Moderate correlation
Below $+0.29$	Low correlation
0	No correlation

Source: Okwonu, F. Z., Ahad, N. A., & Apanapudor, J. S. (2025).

ANALYSIS OF NEONATES GENDER AND MODE OF DELIVERY USING PEARSON'S CORRELATION. Science World Journal, 19(1), 50–57.

The significant value between all of the independent variables (green product, price, promotion, and packaging of green product) and the dependent variable (consumers' purchase intention) are 0.000 according to Table 4.27. It is indicated that the correlation of variables is significant at the level of 0.01. The range of coefficient values is +1 to -1. A perfect positive relationship is represented by a value of +1 while a perfect negative relationship is represented by a value of -1. Meanwhile, there is no relationship by a value of 0 (Okwonu, F. Z., Ahad, N. A., & Apanapudor, J. S., 2025).

Table 4.27 shows that the price of green product has the highest correlation towards the green product with the correlation coefficient value of 0.824. Subsequently, there is a high correlation between promotion of green product and price of green product with a correlation coefficient value of 0.823, followed by the third highest correlation which is the green product towards promotion of green product with a correlation coefficient value of 0.812. Thereafter, the packaging of green product has a high correlation towards promotion of green product, price of green product as well as green product with correlation coefficient value of 0.788, 0.784 and 0.777 respectively. Moreover, the consumers' purchase intention has a high correlation towards packaging of green product, promotion of green product,

green product, and price of green product with correlation coefficient value of 0.804, 0.759, 0.750 and 0.702 respectively.

4.4.2 Multiple Regression Analysis

Table 4.29: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.837a	.701	.695	.435

Source: Developed for the research

Table 4.29 shows that the R-value is 0.837, R Square is 0.701 and Adjusted R Square is 0.695. Adjusted R Square of 0.695 indicates that 69.5% of the dependent variable (consumers' purchase intention) is explained by the four independent variables (green product, price, promotion, and packaging of green product). In summary, the independent variables will affect the dependent variable.

Table 4.30: Table of ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	86.369	4	21.592	114.348	.000 ^b
	Residual	36.821	195	.189		
	Total	123.190	199			

Source: Developed for the research

Table 4.30 indicates that the F value is 114.348 at the significant level of 0.000. This outcome has demonstrated that the model's appropriateness is

met. Additionally, each of the four independent variables that were employed in this study has a significant relationship with the dependent variable and serves to explain it.

Table 4.31: Table of Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.111	.203		.549	.584
	Green Product	.244	.082	.232	2.965	.003
	Price of Green Product	-.074	.079	-.076	-.937	.350
	Promotion of Green Product	.335	.106	.250	3.152	.002
	Packaging of Green Product	.489	.072	.485	6.816	.000

Source: Developed for the research

According to the Table 4.31, the Coefficients equation is developed as below:

Consumers' Purchase Intention = 0.111 (constant) + 0.244 (Green Product) + -0.074 (Price of Green Product) + 0.335 (Promotion of Green Product) + 0.489 (Packaging of Green Product)

Standardised coefficients, usually referred to as beta coefficients, provide a means of determining the direction and strength of the relationship between variables when stated in different scales or units. Table 4.11 indicates the coefficients result of this study. The independent variable, Packaging of Green Product has a substantial impact

on the dependent variable, Consumers' Purchase Intention (PI), with a standardized coefficient beta level of 0.485, followed by the Promotion of Green Product with a standardized coefficient beta level of 0.250. Subsequently, Green Product has a standardized coefficient beta level of 0.232. Lastly, Price of Green Product has the least potential to influence the Consumers' Purchase Intention (PI) with a standardized coefficient beta level of -0.076.

4.5 Hypothesis Testing

Table 4.32: Test of Significant

Construct	Significant value
Green Product	0.003
Price of Green Product	0.350
Promotion of Green Product	0.002
Packaging of Green Product	0.000

Source: Developed for the research

H1: There is a positive relationship between green product and consumers' purchase intention.

The significant value of green product stated in Table 4.32 is 0.003 which is lower than the p-value of 0.05. Thus, H1 is accepted in this research. This indicates that the positive relationship between green product and consumers' purchase intention is supported.

H2: There is a positive relationship between price of green product and consumers' purchase intention.

The significant value of green price stated in Table 4.32 is 0.350 which is greater than the p-value of 0.05. Thus, H2 is rejected in this research. This indicates that the positive relationship between price of green product and consumers' purchase intention is not supported.

H3: There is a positive relationship between promotion of green product and consumers' purchase intention.

The significant value of green promotion stated in Table 4.32 is 0.002 which is lower than the p-value of 0.05. Thus, H3 is accepted in this research. This indicates that the positive relationship between promotion of green product and consumers' purchase intention is supported.

H4: There is a positive relationship between packaging of green product and consumers' purchase intention.

The significant value of green product stated in Table 4.32 is 0.000 which is lower than the p-value of 0.05. Thus, H4 is accepted in this research. This indicates that the positive relationship packaging of green product and consumers' purchase intention is supported.

4.6 Chapter Summary

This chapter discussed about the descriptive analysis and inferential analysis. The demographics of respondents and reliability test are explained in the descriptive analysis. While the Pearson Correlation and multiple regression analysis are explained under the inferential analysis. According to the Cronbach's Alpha, all of

the results are reliable. The result of multiple regression indicates that Hypothesis 1 to Hypothesis 4 is supported apart from Hypothesis 2

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

This chapter will discuss the main findings from the previous chapter to support the research objectives and hypotheses. Moreover, the practical implications, theoretical implications, limitations of the research and recommendations for future research will also be outlined in this chapter.

5.1 Discussions of Major Findings

Table 5.0: Summary of Hypotheses Testing Results

Hypotheses	Outcome	Results
H1: There is a positive relationship between green product and consumers' purchase intention.	Significant value: 0.003 < 0.05	Accepted
H2: There is a positive relationship between price of green product and consumers' purchase intention.	Significant value: 0.350 > 0.05	Rejected
H3: There is a positive relationship between promotion of green product and consumers' purchase intention.	Significant value: 0.002 < 0.05	Accepted
H4: There is a positive relationship between packaging of green product and consumers' purchase intention.	Significant value: 0.000 < 0.05	Accepted

Source: Developed for the research

5.1.1 Relationship between green product and consumers' purchase intention.

Based on the Table 5.0, the positive relationship between green product and consumers' purchase intention is significant and supported. The p-value of 0.003 is lower than 0.05. Thus, it is proven that green product is one of the variables influencing the consumers' purchase intention. The research of Sabri, Mansor, & Musa (2020) had indicated that there is a positive relationship between the green product with the consumers' buying behaviour. Moreover, the availability of the green products motivates the customers to create value which will affect their purchase intention. This concept shows how consumer purchasing intention and green products are related (Anjani & Perdhana, 2021). Many customers believe that even though they may not seem that much in the larger scheme of environmental challenges, the purchase of every green product makes a small but meaningful contribution to environmental conservation efforts (Kamalanon, Chen & Le, 2022).

5.1.2 Relationship between price of green product and consumers' purchase intention.

According to the Table 5.0, the positive relationship between price of green product and consumers' purchase intention is neither significant nor supported. The p-value of 0.350 is greater than 0.05. Thus, it is proven that price of green product is not the variables influencing the consumers' purchase intention. According to Dorsamy and Govender (2023), the positive relationship between price of green product and green purchase intention is not supported. Furthermore, it is founded that a significant number of consumers are less willing to pay a premium price for purchasing the environmentally friendly products (Khaleeli, Oswal, & Sleem, 2021). This statement is also supported by other researchers. (Malhotra, G., &

Maheshwari, A, 2011; Neff, 2012). Because of the actual trade-offs consumers must face in order to survive, the high price of green product may discourage some consumers. The money saved by purchasing normal product can be used to buy additional product instead of being spent on a single green product (Pieters, Novak, Pankratz & Rogers, 2023).

5.1.3 Relationship between promotion of green product and consumers' purchase intention.

Table 5.0 shows that the positive relationship between promotion of green product and consumers' purchase intention is significant and supported. The p-value of 0.002 is lower than 0.05. Thus, it is proven that promotion of green product is one of the variables influencing the consumers' purchase intention. According to Humairoh and Elfani (2020), advertisements promoting environmental efforts have a favourable effect on consumers' feelings, attitudes, and preferences, which influences their purchasing intentions. Several research indicates that promotion of green product has a major impact on consumers' purchase intention (Hossain & Khan, 2018; Wolok, 2019; Anjani & Perdhana, 2021). The customers will be more willing to purchase the green product from the brands that engaged in CSR. The customers believe that these brands value sustainability and quality above all else, which makes their eco-friendly products more enticing and reliable (Deep, 2023).

5.1.4 Relationship between packaging of green product and consumers' purchase intention.

Referring to the Table 5.0, the positive relationship between packaging of green product and consumers' purchase intention is significant and supported. The p-value of 0.000 is lower than 0.05. Thus, it is proven that packaging of green product is one of the variables influencing the consumers' purchase intention. Packaging of green product is an important factor that can stimulate the consumers' purchase intention (Waheed, Khan, & Ahmad, 2018). According to Waheed et al. (2018), packaging of green product has a positive effect on consumers' purchase intention. This is due to the customers will be more inclined to buy green items and contribute to environmental sustainability if they are packaged using eco-friendly materials (Barbu, Catană, Deselnicu, Cioca & Ioanid, 2022).

5.2 Implications of the Study

5.2.1 Theoretical Implications

This research focuses on the impact of green marketing on consumers' purchase intention in the F&B sector. There is lack of research conducted focusing on the F&B industry. It can be seen that majority of the research are conducted to investigate the overall impact of green marketing on consumers' purchase intention without mainly concentrating only on the F&B industry. There are a wide range of products in the F&B industry. The findings across different sectors in the industry will be hard to generalize. Consequently, the scope of the research will become narrower (Giang, Huyen, Trang, Giang, & Linh, 2021). However, the F&B industry contribute to the sustainability movement, consumers consider sustainability when making purchase decisions. Thus, more comprehensive research is necessary to capture the attention of consumers within the F&B industry (Zeeuwen, 2023).

The variables encompassing green product, price, promotion, and packaging of green product were examined in this research. However, past research seldom includes green product as a factor. It can be seen that majority of the research examined price and promotion of green product, attitude and so on while overlooking the importance of green product itself. The study of Mahmoud (2018) had tested on price, promotion, and packaging of green product. However the result is inconclusive, it was suggested to incorporate green products as a variable to achieve a more definitive result (Mahmoud, 2018).

5.2.2 Practical Implications

Based on this research, it is concluded that the green marketing has significant impact on the consumers' purchase intention. The majority of previous studies on the impact of green marketing on consumers' purchase intention were conducted in other countries or in globally. However, there was not much study about the purchase intention of consumers that mainly target the Malaysia population. Other than that, it is crucial to understand the purchase intention of consumers affected by the green marketing. It is useful to discover further about the attitudes and opinions of customers regarding environmentally friendly food and beverages (Dorsamy & Govender, 2023).

Policy makers such as the government should provide subsidy or incentive to encourage the F&B organization to adopt green marketing practices. Green packaging requires special processed materials like biodegradable or recycled materials which incur high costs. As green packaging has been proven to be the factor that affect the consumers' purchase intention, the organizations will be more willing to pack the products with eco-friendly materials, especially with the government support.

Other than that, government authorities and organizations can collaborate to promote green marketing strategies. The promotional activities conduct may become more reliable and persuasive. Consumers may be less sceptical regarding the advertisement and others marketing initiatives. Therefore, the consumers are more willing to purchase the F&B products advertised.

5.3 Limitations of the Study

The research results might not be completely unbiased as some areas were not sufficiently covered. This study merely focused on the target population in Malaysia instead of other countries. There might be differences in consumers' purchase intention which will generate different responses. The result will not be precisely accurate as the results only represent the consumers in Malaysia.

After gathering the data via google survey form, it was discovered that majority of the respondents are at the age of 26 and below. This age group are mostly students holding a degree. The purchasing power of this group of individuals might be low as most of them are B40 or M40. Thus, the purchase intentions of these individuals might be influenced by their income. Furthermore, the survey is mostly distributed to individuals of Chinese ethnicity. Different ethnicities may have varying cultures, norms and purchasing patterns. Therefore, the results are primarily based on the opinions and thoughts of the Chinese population.

According to the result in the Multi Regression Analysis, it is indicated that there are 69.5% of the dependent variable can be explained by the four independent variables. This means that there are still 30.5% remain unexplained. Additional factors affecting the consumers' purchase intention are yet to be discovered. All the above limitations are acknowledged, yet they do not diminish the significance of the findings in this research. Furthermore, they provide opportunities for future research. Variables encompassing green product, price, promotion, and packaging

of green product are tested in this research. However, there are still several important factors should be included in this research such as green place, attitudes, green trust, green word of mouth and so on.

5.4 Recommendations for Future Research

Future research should consider expanding to other countries and geographic areas to gather more diverse perspectives of consumers' purchase intention. Future research should compare countries that have similar characteristics with Malaysia, such as developing countries like Indonesia and Thailand, or countries with similar ethnic compositions like Singapore.

On the other hand, future study can focus on the age group of 27 to 41 years old and 42 to 56 years old. These age groups have a higher purchasing power as majority of them are working adults. Obtaining responses from a broader age range would yield more insightful findings because consumers' purchase intention might be varied according to their purchasing power. Working-age consumers with significant purchasing power focus on product quality, particularly benefits related to health, and evaluate organisations and their social responsibility (Witek & Kuźniar, 2020). Furthermore, the survey should distribute to each ethnicity more evenly rather than focusing on the Chinese. According to Zakersalehi and Zakersalehi (2012), consumers with different racial background can have varied intentions when purchasing green food. To achieve this, a cluster sampling method can be utilized. Divide the population into four clusters for age group and ethnicity. Collect data from 50 individuals in each cluster. This method guarantees a more proportionate distribution of respondents among different groups, hence facilitating a thorough comprehension of consumers' purchase intention.

As there still room for future researcher to examine. Future studies can therefore look into the remaining 30.5% to find further variables influencing consumers'

purchase intention to increase the comprehensiveness and accuracy in forecasting. Additionally, more variables should be included in the future research. The variables encompassing green place, attitudes, green trust, and green word of mouth. The availability of the green products will affect the purchasing behaviour of consumers (Joshi & Rahman, 2015). Moreover, Yen and Hoang (2023) mentioned that consumers' purchase intention is largely determined by their attitude toward the green item. The higher level of trust towards the green products' environmental performance, the higher the consumers' purchase intention (Zhuang, Luo, & Riaz, 2021). According to the study of Khare (2014), customers' perceptions of green products can be positively shaped by favourable word-of-mouth, which increases their intention to buy green items. The variables mentioned above have a significant impact and are crucial to test in future research.

5.5 Chapter Summary

To sum up, this research analysed the factors that influence the consumers' purchase intention in the F&B sector in Malaysia. It is indicated that there are three independent variables have a significant impact on the consumers' purchase intention (dependent variable) which is green product, promotion, and packaging of green product. Three out of four of the hypotheses are supported and accepted. In addition, the implications, limitations, and recommendations for the future research are discussed in this chapter. This research has revealed certain limitations and recommendations are provided for future studies to make modifications for their application. Regardless of the acknowledged limitations, this research provides an insightful findings and implications to the society for the manner of understanding the impact of green marketing of food and beverages on consumers' purchase intention.

REFERENCES

- A *guide on Eco-Friendly beverages — the considerate consumer*. (n.d.). The Considerate Consumer. <https://www.considerate-consumer.com/beverages>
- Ajayi, V. O. (2017). Primary Sources of Data and Secondary Sources of Data. *Benue State University, 1*(1), 1–6.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-t](https://doi.org/10.1016/0749-5978(91)90020-t)
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. <https://ci.nii.ac.jp/ncid/BA21965086>
- Ali, Z., & Bhaskar, S. B. (2016). Basic statistical tools in research and data analysis. *Indian Journal of Anaesthesia, 60*(9), 662. <https://doi.org/10.4103/0019-5049.190623>
- Alvi, M. (2016). A manual for selecting sampling techniques in research. *MPRA Paper*. <https://ideas.repec.org/p/prapa/mprapa/70218.html>
- Anjani, S., & Perdhana, M. S. (2021). Green Marketing Mix Effects on Consumers' Purchase Decision: A Literature Study. *Diponegoro Journal of Management, 10*(4).
- Ansar, N. (2013). Impact of green marketing on consumer purchase intention. *Mediterranean Journal of Social Sciences, 4*(11). <https://doi.org/10.5901/mjss.2013.v4n11p650>
- Arseculeratne, D., & Yazdanifard, R. (2013). How green marketing can create a sustainable competitive advantage for a business. *International Business Research, 7*(1). <https://doi.org/10.5539/ibr.v7n1p130>
- Barbu, A., Catană, Ș., Deselnicu, D. C., Cioca, L., & Ioanid, A. (2022). Factors Influencing Consumer Behavior toward Green Products: A Systematic Literature Review. *International Journal of Environmental Research and Public Health/International Journal of Environmental Research and Public Health, 19*(24), 16568. <https://doi.org/10.3390/ijerph192416568>

- Bhate, S., & Lawler, K. (1997b). Environmentally friendly products: Factors that influence their adoption. *Technovation*, 17(8), 457–465. [https://doi.org/10.1016/s0166-4972\(97\)00006-0](https://doi.org/10.1016/s0166-4972(97)00006-0)
- Cam, L. N. T. (2023). A rising trend in eco-friendly products: A health-conscious approach to green buying. *Heliyon*, 9(9), e19845. <https://doi.org/10.1016/j.heliyon.2023.e19845>
- Chan, G. (2023). Climate crisis could contribute to a global food shortage by 2050, US special envoy on food security warns. *The Guardian*. <https://www.theguardian.com/australia-news/2023/sep/05/climate-crisis-could-contribute-to-a-global-food-shortage-by-2050-us-special-envoy-on-food-security-warns#:~:text=Fowler%2C%20who%20is%20also%20known,to%20feed%20its%20growing%20population>.
- Chapagain, A., & James, K. (2013). Accounting for the impact of food waste on water resources and climate change. In *Elsevier eBooks* (pp. 217–236). <https://doi.org/10.1016/b978-0-12-391921-2.00012-3>
- Chekima, B., Wafa, S. a. W. S. K., Igau, O. A., Chekima, S., & Sondoh, S. L. (2016). Examining green consumerism motivational drivers: does premium price and demographics matter to green purchasing? *Journal of Cleaner Production*, 112, 3436–3450. <https://doi.org/10.1016/j.jclepro.2015.09.102>
- Chen, Y. S., Lin, C. L., & Chang, C. H. (2013). The influence of greenwash on green word-of-mouth (green WOM): the mediation effects of green perceived quality and green satisfaction. *Quality & Quantity*, 48(5), 2411–2425. <https://doi.org/10.1007/s11135-013-9898-1>
- 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 behavior. *Sustainable Production and Consumption*, 18, 145–155. <https://doi.org/10.1016/j.spc.2019.02.001>
- Chou, S., Horng, J., Liu, C. S., & Lin, J. (2020). Identifying the critical factors of customer behavior: An integration perspective of marketing strategy and components of attitudes. *Journal of Retailing and Consumer Services*, 55, 102113. <https://doi.org/10.1016/j.jretconser.2020.102113>
- Comrey, A. L., & Lee, H. B. (2013). A first course in factor analysis. In *Psychology Press eBooks*. <https://doi.org/10.4324/9781315827506>

- Coursera. (2023). *What is sample size?* <https://www.coursera.org/articles/what-is-sample-size>
- D'Souza, C., Taghian, M., Lamb, P., & Peretiatko, R. (2006). Green decisions: demographics and consumer understanding of environmental labels. *International Journal of Consumer Studies*, 31(4), 371–376. <https://doi.org/10.1111/j.1470-6431.2006.00567.x>
- De Freitas Netto, S. V., Sobral, M. F. F., Ribeiro, A. R. B., & Da Luz Soares, G. R. (2020). Concepts and forms of greenwashing: a systematic review. *Environmental Sciences Europe*, 32(1). <https://doi.org/10.1186/s12302-020-0300-3>
- Deep, G. (2023). The influence of corporate social responsibility on consumer behavior. *Magna Scientia Advanced Research and Reviews*, 9(2), 072–077. <https://doi.org/10.30574/msarr.2023.9.2.0162>
- Delafrooz, N., Taleghani, M., & Nouri, B. (2014). Effect of green marketing on consumer purchase behavior. *QScience Connect*, 2014(1). <https://doi.org/10.5339/connect.2014.5>
- Developing Likert-Scale Questionnaires. (2014). In T. Nemoto, David Beglar, & D. Beglar (Eds.), *JALT 2013 conference proceedings*.
- Dorsamy, B., & Govender, J. P. (2023). Consumer Purchase Intention and Purchase Behaviour for Green Fast Moving Consumer Goods. *Expert Journal of Marketing*, 11(2), 188–200. <https://marketing.expertjournals.com/23446773-1114/>
- Dovetail Editorial Team. (2023, May 14). *Causal Research Design: Definition, benefits, examples*. <https://dovetail.com/research/causal-research/>
- Environnement, E. (2022, April 29). *Reasons why we should care about the environment*. ERA ENVIRONNEMENT. <https://www.eraenvironnement.com/en/reasons-why-we-should-care-about-the-8927-environment/>
- Fernando, V., Abeysekara, N., Samarasinghe, G. D., & Kuruppu, G. N. (2017). The impact of green attributes on customer Loyalty of supermarket outlets in Sri

Lanka. 2017 Moratuwa Engineering Research Conference (MERCon).
<https://doi.org/10.1109/mercon.2017.7980517>

Gandhi, A., & Mayur, R. C. (2013). Green Marketing: Impact of green advertising on consumer purchase intention. *Advances in Management*, 6(9), 14.
<https://ideas.repec.org/a/mgn/journal/v6y2013i9a3.html>

Gani, A., Imtiaz, N., Rathakrishnan, M., & Krishnasamy, H., N. (2020). pilot test for establishing validity and reliability of qualitative interview in the blended learning English proficiency course. *Journal of Critical Reviews*, 7(05), 140–143. <https://doi.org/10.31838/jcr.07.05.23>

Giang, D. H., Huyen, L. N. K., Trang, L. T., Giang, N. Q., & Linh, T. P. (2021). Internal factors affecting green procurement of food and beverage firms in Vietnam. *Tạp Chí Kinh Tế Và Kinh Doanh/VNU Journal of Economics and Business*, 1(5). <https://doi.org/10.57110/jeb.v1i5.4658>

Gillan, S. L., Koch, A., & Starks, L. T. (2021). Firms and social responsibility: A review of ESG and CSR research in corporate finance. *Journal of Corporate Finance*, 66, 101889. <https://doi.org/10.1016/j.jcorpfin.2021.101889>

Gleim, M. R., Smith, J. S., Andrews, D., & Cronin, J. J. (2013). Against the Green: A multi-method examination of the barriers to green consumption. *Journal of Retailing*, 89(1), 44–61. <https://doi.org/10.1016/j.jretai.2012.10.001>

Hale, E. (2022, October 19). Earth's environment getting worse, not better, says WWF ahead of Rio+20. *The Guardian*.
<https://www.theguardian.com/environment/2012/may/15/earth-environment-wwf-rio20>

Han, H., Hsu, L., & Sheu, C. (2010). Application of the Theory of Planned Behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, 31(3), 325–334.
<https://doi.org/10.1016/j.tourman.2009.03.013>

Harisandi, P., & Purwanto, P. (2022). The effects of price, brand image, and product quality on customer loyalty and repurchase (a study case on customers of Walls products). *IDEAS Journal of Management & Technology*, 2(1), 22.
<https://doi.org/10.33021/ideas.v2i1.3739>

- Hasan, Z., & Ali, N. A. (2015). The impact of Green Marketing Strategy on the firm's performance in Malaysia. *Procedia - Social and Behavioral Sciences*, 172, 463–470. <https://doi.org/10.1016/j.sbspro.2015.01.382>
- Hasanah, A. U., Riana, F., & Toiba, H. (2023). Impact of green marketing to food and beverages on purchasing decisions and brand image as a mediation variable (Case Study: Millennial consumers). *Habitat*, 34(2), 167–177. <https://doi.org/10.21776/ub.habitat.2023.034.2.15>
- Hill, R. (1998). What sample size is “enough” in internet survey research? *Interpersonal Computing and Technology: An Electronic Journal for the 21st Century*, 6(3–4), 1–12.
- Hossain, A., & Khan, Y. H. (2018). Green marketing mix effect on consumers buying decisions in Bangladesh. *Marketing I Menedžment Inovacij*, 4, 298–306. <https://doi.org/10.21272/mmi.2018.4-25>
- Humairoh, & Elfani, N. M. (2020). Is green marketing a basis for purchase decisions. *Proceedings of the 1st International Conference on Science, Health, Economics, Education and Technology (ICoSHEET 2019)*. <https://doi.org/10.2991/ahsr.k.200723.116>
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, 3(1–2), 128–143. <https://doi.org/10.1016/j.ism.2015.04.001>
- Kalama, E. (2007). *Green marketing practices by Kenya petroleum refineries: a study of the perception of the management of oil marketing companies in Kenya*. <http://erepository.uonbi.ac.ke/handle/11295/7458>
- Kamalanon, P., Chen, J., & Le, T. (2022). “Why do we buy green products?” an extended theory of the planned behavior model for green product purchase behavior. *Sustainability*, 14(2), 689. <https://doi.org/10.3390/su14020689>
- Kang, H. (2020). Sample size determination and power analysis using the G*Power software. *Journal of Educational Evaluation for Health Professions*, 18, 17. <https://doi.org/10.3352/jeehp.2021.18.17>
- Karunarathna, A., Bandara, V., Silva, A., & De Mel, W. (2020). Impact of Green Marketing Mix on Customers' Green Purchasing Intention with Special

Reference to Sri Lankan Supermarkets. *South Asian Journal of Marketing*, 1(1), 127–153. <http://ir.kdu.ac.lk/handle/345/4150>

Kautish, P., Paul, J., & Sharma, R. (2019). The moderating influence of environmental consciousness and recycling intentions on green purchase behavior. *Journal of Cleaner Production*, 228, 1425–1436. <https://doi.org/10.1016/j.jclepro.2019.04.389>

Khaleeli, M., Oswal, N., & Sleem, H. (2021). The moderating effect of price consciousness on the relationship between green products purchase intention and customers' purchase behavior: Does environmental knowledge matters? ., *Management Science Letters*, 1651–1658. <https://doi.org/10.5267/j.msl.2020.12.007>

Khare, A. (2014). Consumers' susceptibility to interpersonal influence as a determining factor of ecologically conscious behaviour. *Marketing Intelligence & Planning*, 32(1), 2–20. <https://doi.org/10.1108/mip-04-2013-0062>

Kwatra, M. (2022, December 24). Environmental sustainability is vital for the food and beverage industry. *Times of India Blog*. <https://timesofindia.indiatimes.com/blogs/voices/environmental-sustainability-is-vital-for-the-food-and-beverage-industry/>

Lacie. (2023, May 26). Here's why "going green" can be annoying and intimidating: reasons people reject. *Teach Go Green*. <https://teachgogreen.com/heres-why-going-green-can-be-annoying-and-intimidating-reasons-people-reject-eco-conscious-living-and-how-to-overcome-it/>

Leonard, M. (2004). The human factor: the critical importance of effective teamwork and communication in providing safe care. *Quality & Safety in Health Care*, 13(suppl_1), i85–i90. <https://doi.org/10.1136/qshc.2004.010033>

Mahmoud, T. O. (2018). Impact of green marketing mix on purchase intention. *International Journal of Advanced and Applied Sciences*, 5(2), 127–135. <https://doi.org/10.21833/ijaas.2018.02.020>

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), 1077. <https://doi.org/10.3390/su8101077>

- Malhotra, G., & Maheshwari, A. (2011). Green marketing e a study on Indian youth. *International Journal of Management Strategy*, 2(3).
- Malhotra, N. K., & Birks, D. F. (2007). *Marketing Research: an applied approach: 3rd European Edition*. <https://eprints.soton.ac.uk/37070/>
- MartíNez, M. P., Cremasco, C. P., Filho, L. R. a. G., Braga, S. S., Bednaski, A. V., Quevedo-Silva, F., Correa, C. M., Da Silva, D., & Moura-Leite, R. C. (2020). Fuzzy inference system to study the behavior of the green consumer facing the perception of greenwashing. *Journal of Cleaner Production*, 242, 116064. <https://doi.org/10.1016/j.jclepro.2019.03.060>
- Michaelidou, N., & Hassan, L. M. (2007). The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. *International Journal of Consumer Studies*, 32(2), 163–170. <https://doi.org/10.1111/j.1470-6431.2007.00619.x>
- Minsel, T. (2018). *Sample Size: The Requirements for a Reliable Study*. Throne Research Consulting. <https://www.tronersearch.com/blog/sample-size-requirements-reliable-study#:~:text=In%20general%2C%20the%20precision%20of,the%20point%20of%20diminishing%20returns.>
- Mishra, P., & Sharma, P. (2015). Green marketing: Challenges and opportunities for business. *BVIMR Management Edge*, 7(1), 78–86.
- Mkhize, S. S., & Ellis, D. J. (2020). Creativity in marketing communication to overcome barriers to organic produce purchases: The case of a developing nation. *Journal of Cleaner Production*, 242, 118415. <https://doi.org/10.1016/j.jclepro.2019.118415>
- Neff, J. (2012). As more marketers go green, fewer consumers willing to pay for it. *Ad Age*. <https://adage.com/article/news/marketers-green-fewer-consumers-pay/237377>
- Nekmahmud, & Fekete-Farkas, M. (2020). Why not green marketing? determinates of consumers' intention to green purchase decision in a new developing nation. *Sustainability*, 12(19), 7880. <https://doi.org/10.3390/su12197880>

- Nguyen, A. T., Yên-Khanh, N., & Thuan, N. H. (2021). Consumers' purchase intention and willingness to pay for Eco-Friendly packaging in Vietnam. In *Environmental footprints and eco-design of products and processes* (pp. 289–323). https://doi.org/10.1007/978-981-16-4609-6_11
- Nguyen, N., Nguyen, L. H. A., & Tran, T. T. (2021). Purchase behavior of young consumers toward green packaged products in Vietnam. *Journal of Asian Finance, Economics and Business*, 8(1), 985–996. <https://doi.org/10.13106/jafeb.2021.vol8.no1.985>
- Nriagu, J. (2019). *Encyclopedia of Environmental Health* (Vol. 2). Elsevier.
- Okwonu, F. Z., Ahad, N. A., & Apanapudor, J. S. (2025). ANALYSIS OF NEONATES GENDER AND MODE OF DELIVERY USING PEARSON'S CORRELATION. *Science World Journal*, 19(1), 50–57.
- Padfield, R., Papargyropoulou, E., & Preece, C. (2012). A Preliminary Assessment of Greenhouse Gas Emission Trends in The Production and Consumption of Food in Malaysia. *International Journal of Technology*, 3(1), 56–66. <https://doi.org/10.14716/ijtech.v3i1.1086>
- Pan, C., Lei, Y., Wu, J., & Wang, Y. (2021). The influence of green packaging on consumers' green purchase intention in the context of online-to-offline commerce. *Journal of Systems and Information Technology*, 23(2), 133–153. <https://doi.org/10.1108/jsit-11-2019-0242>
- Park, H. S. (2000). Relationships among attitudes and subjective norms: Testing the theory of reasoned action across cultures. *Communication Studies*, 51(2), 162–175. <https://doi.org/10.1080/10510970009388516>
- Paul, J., Modi, A., & Patel, J. D. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services*, 29, 123–134. <https://doi.org/10.1016/j.jretconser.2015.11.006>
- Peleg, L. A. (2023, June 5). *Sustainability in the food and beverage industry*. Precognize. <https://precog.co/blog/sustainability-food-and-beverage-manufacturing/>
- Pieters, L., Novak, D. R., Pankratz, D., & Rogers, S. (2023, October 24). *The cost of buying green*. Deloitte Insights.

<https://www2.deloitte.com/us/en/insights/industry/retail-distribution/consumer-behavior-trends-state-of-the-consumer-tracker/sustainable-products-and-practices-for-green-living.html>

Rahbar, E., & Wahid, N. A. (2011). Investigation of green marketing tools' effect on consumers' purchase behavior. *Business Strategy Series*, 12(2), 73–83. <https://doi.org/10.1108/17515631111114877>

Rahi, S. (2017). Research Design and Methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics and Management Sciences*, 06(02). <https://doi.org/10.4172/2162-6359.1000403>

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. <https://doi.org/10.1016/j.resconrec.2010.06.007>

Rawat, A. S. (2021, March 31). *What is Descriptive Analysis?- Types and Advantages / Analytics Steps*. Analytics Steps. <https://www.analyticssteps.com/blogs/overview-descriptive-analysis>

Research guides: Organizing Academic research Papers: Types of Research Designs. (n.d.). <https://library.sacredheart.edu/c.php?g=29803&p=185902>

Reavis, M., Ahlen, J., Rudek, J., & Naithani, K. (2022). Evaluating greenhouse gas emissions and climate mitigation goals of the global food and beverage sector. *Frontiers in Sustainable Food Systems*, 5. <https://doi.org/10.3389/fsufs.2021.789499>

Ritchie, H. (2023, September 27). *Food production is responsible for one-quarter of the world's greenhouse gas emissions*. Our World in Data. <https://ourworldindata.org/food-ghg-emissions>

Sabri, N. A. S. A., Mansor, N., & Musa, H. (2020). The Influence of Green Marketing Mix on Consumer Purchase Intention Towards Green Products.

Sachdeva, S., Jordan, J., & Mažar, N. (2015). Green consumerism: moral motivations to a sustainable future. *Current Opinion in Psychology*, 6, 60–65. <https://doi.org/10.1016/j.copsyc.2015.03.029>

- Şahin, A., & Anıl, D. (2017). The effects of test length and sample size on item parameters in item response theory. *Educational Sciences: Theory & Practice*, 17(1). <https://doi.org/10.12738/estp.2017.1.0270>
- Saidi, S. S., & Siew, N. M. (2019). Investigating the Validity and Reliability of Survey Attitude towards Statistics Instrument among Rural Secondary School Students. *International Journal of Educational Methodology*, 5(4), 651–661. <https://doi.org/10.12973/ijem.5.4.651>
- Sarkar, A. (2012). Green marketing and sustainable development challenges and opportunities. *International Journal of Marketing, Financial Services & Management Research*, 1(9), 120–134.
- Sembiring, R. J. (2021). The Effect Green Marketing Mix on Corporate Image as Well as Implication for Purchase Intention of Food and Beverages Companies In Indonesia. *Journal of Social Science*, 2(2), 210–222. <https://doi.org/10.46799/jsss.v2i2.112>
- Sharaf, M. A., & Perumal, S. (2018). An overview profile and green purchasing behavior of consumers in the northern region of Malaysia. *Journal of Research in Marketing*. <https://doi.org/10.17722/jorm.v8i3.229>
- Sharma, G. (2017). Pros and cons of different sampling techniques. *International Journal of Applied Research*, 3(7), 749–752. <https://www.allresearchjournal.com/archives/2017/vol3issue7/PartK/3-7-69-542.pdf>
- Singh, S. (2024, January 8). *What is Research Design? Types, Elements and Examples | Researcher.Life*. <https://researcher.life/blog/article/what-is-research-design-types-examples/>
- Srivastava, S. K. (2007). Green supply-chain management: A state-of-the-art literature review. *International Journal of Management Reviews*, 9(1), 53–80. <https://doi.org/10.1111/j.1468-2370.2007.00202.x>
- Straughan, R. D., & Roberts, J. A. (1999). Environmental segmentation alternatives: a look at green consumer behavior in the new millennium. *Journal of Consumer Marketing*, 16(6), 558–575. <https://doi.org/10.1108/07363769910297506>

- Subaida, I., & Hakiki, F. N. (2020). Effect of Financial Knowledge and Financial Experience on Investment Planning Behavior with Self Control as a Moderating Variable. *Proceedings of the 2nd International Conference of Business, Accounting and Economics, ICBAE 2020, 5 - 6 August 2020, Purwokerto, Indonesia*. <https://doi.org/10.4108/eai.5-8-2020.2301129>
- Sultan, P., Tarafder, T., Pearson, D., & Henryks, J. (2020). Intention-behaviour gap and perceived behavioural control-behaviour gap in theory of planned behaviour: moderating roles of communication, satisfaction and trust in organic food consumption. *Food Quality and Preference*, 81, 103838. <https://doi.org/10.1016/j.foodqual.2019.103838>
- Taherdoost, H. (2016). Sampling methods in research methodology; How to choose a sampling technique for research. *Social Science Research Network*. <https://doi.org/10.2139/ssrn.3205035>
- Takács-Sánta, A. (n.d.). Barriers to environmental concern on JSTOR. www.jstor.org, 14(1), 26–38. <https://www.jstor.org/stable/24707641>
- Tan, B. C., & Lau, T. C. (2010). Attitude towards the Environment and Green Products: Consumers' Perspective. *Management Science and Engineering*, 4(2), 27–39.
- Tan, C., Ooi, H., & Goh, Y. (2017). A moral extension of the theory of planned behavior to predict consumers' purchase intention for energy-efficient household appliances in Malaysia. *Energy Policy*, 107, 459–471. <https://doi.org/10.1016/j.enpol.2017.05.027>
- Theory of planned behavior*. (2023, October 18). Change Theories Collection. https://ascnhighered.org/ASCN/change_theories/collection/planned_behavior.html
- Tong, Q., Anders, S., Zhang, J., & Zhang, L. (2020). The roles of pollution concerns and environmental knowledge in making green food choices: Evidence from Chinese consumers. *Food Research International*, 130, 108881. <https://doi.org/10.1016/j.foodres.2019.108881>
- Van Birgelen, M., Semeijn, J., & Keicher, M. (2008). Packaging and proenvironmental consumption behavior. *Environment and Behavior*, 41(1), 125–146. <https://doi.org/10.1177/0013916507311140>

- Wadood, F., Akbar, F., & Ullah, I. (2024). The importance and essential steps of pilot testing in management studies: A quantitative survey results. *Journal of Contemporary Issues in Business and Government*, 27(5).
- Waheed, S., Khan, M. M., & Ahmad, N. (2018). Product Packaging and Consumer Purchase Intentions. *Market Forces*, 13(2).
- What you need to know about literacy. (2023, June 29). UNESCO. <https://www.unesco.org/en/literacy/need-know#:~:text=Great%20progress%20has%20been%20made,68%20per%20cent%20in%201979>.
- White, K., Hardisty, D. J., & Habib, R. (2024, February 22). *The elusive green consumer*. Harvard Business Review. <https://hbr.org/2019/07/the-elusive-green-consumer#:~:text=Consumers%20often%20have%20negative%20associations,likely%20to%20choose%20sustainable%20options>.
- Why BMS Organics. (n.d.). BMS Organics. Retrieved November 30, 2023, from <https://www.bmsorganics.com/pages/why-bms-organics>
- Witek, L., & Kuźniar, W. (2020). Green Purchase behavior: The effectiveness of sociodemographic variables for explaining green purchases in emerging market. *Sustainability*, 13(1), 209. <https://doi.org/10.3390/su13010209>
- Wolok, T. (2019). Analysis of The Effect of Green Marketing on Consumer Purchasing Decisions on The Body Shop Gorontalo Product. *International Journal of Applied Business and International Management*, 4(2), 75–86. <https://doi.org/10.32535/ijabim.v4i2.569>
- Wu, S., & Chen, Y. (2016). The Impact of Green Marketing and Perceived Innovation on Purchase Intention for Green Products. *International Journal of Marketing Studies*, 6(5). <https://doi.org/10.5539/ijms.v6n5p81>
- Xu, X., Hua, Y., Wang, S., & Gui-Fen, X. (2020). Determinants of consumer's intention to purchase authentic green furniture. *Resources, Conservation and Recycling*, 156, 104721. <https://doi.org/10.1016/j.resconrec.2020.104721>
- Yen, N. T. H., & Hoang, D. P. (2023). The formation of attitudes and intention towards green purchase: An analysis of internal and external mechanisms. *Cogent Business & Management*, 10(1). <https://doi.org/10.1080/23311975.2023.2192844>

- Yoro, K. O., & Daramola, M. O. (2023). CO2 emission sources, greenhouse gases, and the global warming effect. *Advances in Carbon Capture*, pp.1-28. <https://doi.org/10.1016/B978-0-12-819657-1.00001-32>
- Zach. (2022, May 22). *Descriptive vs. Inferential Statistics: What's the Difference?* Statology. <https://www.statology.org/descriptive-inferential-statistics/>
- Zakaria, S. a. S., & Singh, A. K. M. (2023). Environmental issues and sustainability in Malaysia – A community perspective. *Nucleation and Atmospheric Aerosols*. <https://doi.org/10.1063/5.0110452>
- Zakersalehi, M., & Zakersalehi, A. (2012). Attitude and Purchasing Intention of Malaysian Consumers toward Green Packaged Foods. *International Journal Trade, Economics and Finance*, 46–51. <https://doi.org/10.7763/ijtef.2012.v3.171>
- Zeeuwen, E. (2023). *How F&B brands can stand out with sustainability*. <https://www.foodbeverageinsider.com/sustainability/how-f-b-brands-can-stand-out-with-sustainability>
- Zhou, Y., Thøgersen, J., Ruan, Y., & Huang, G. (2013). The moderating role of human values in planned behavior: the case of Chinese consumers' intention to buy organic food. *Journal of Consumer Marketing*, 30(4), 335–344. <https://doi.org/10.1108/jcm-02-2013-0482>
- Zhuang, W., Luo, X., & Riaz, M. U. (2021). On the Factors Influencing Green Purchase Intention: A Meta-Analysis Approach. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.644020>
- Zikmund, W. G., Griffin, M., Babin, B. J., & Carr, J. C. (2009). Business Research Methods 8th Edition. In *Open Access Library Journal*. http://perpus.ekuitas.ac.id/index.php?p=show_detail&id=93995

APPENDIX

Appendix 3.1: Questionnaire

The Impact of Green Marketing of Food and Beverages on Consumers' Purchase Intention

B *I* U ↻ ✕

Dear respondents,

My name is Yong Xin En, a final year undergraduate student of Bachelor of International Business (Hons) from Universiti Tunku Abdul Rahman (UTAR), Sungai Long Campus. I am currently carrying out research on "The Impact Of Green Marketing Of Food And Beverages On Consumers' Purchase Intention". This questionnaire is designed with the purpose of collecting data or information related to the aforementioned research topic.

This questionnaire consists of **Two (2) sections**, which may require not more than 10 minutes to complete. Kindly provide your responses and answer all the questions to the best of your knowledge. There are no incorrect answers to any of these statements. Please be noted that all responses will be treated confidentially. The data and information collected will only be used for academic purposes in data collection. If you do not wish to participate, you may quit the survey at any time.

For any inquiries about the survey, please feel free to contact me at 011-30486146 or kimberly041002@utar.my. Your participation in this survey is greatly appreciated and will assist me in conducting the research.

Thank you for your valuable time dedicated to completing this questionnaire!

Your faithfully,

Yong Xin En

PERSONAL DATA PROTECTION NOTICE

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 and that I hereby understood, consented and agreed per
- I disagree, my personal data will not be processed.

Section A: Demographic Question



Description (optional)

1. Gender *

- Male
- Female

2. Age *

- 26 years old and below
- 27 to 41 years old
- 42 to 56 years old
- 57 years old and above

3. Ethnicity

- Malay
- Chinese
- Indian
- Others

4. Marital Status *

- Single
- Married
- Divorce

5. Education Level *

- Foundation
- Diploma
- Bachelor's Degree
- Master's Degree
- PhD

6. Employment Status *

- Unemployed
- Employee (Private sector)
- Employee (Government)
- Self-employed
- Student
- Retired

Section B: Construct Measurement



This section seeks to understand your viewpoint regarding the impact of green marketing of food and beverages on consumers' purchase intention. Please indicate the degree to which you strongly agreed or strongly disagreed with each statement using a Likert scale ranging from 1 to 5.

Strongly disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree = 5

For each statement, please choose **ONLY ONE** number that best reflects your viewpoint.

⋮

Green Product

⋮ Multiple choice grid ▼

Rows	Columns	
1. 1. My purchase intention is influence by t... ✕	<input type="radio"/> Strongly Disagree = 1	✕
2. 2. I have previously bought eco-friendly p... ✕	<input type="radio"/> Disagree = 2	✕
3. 3. I prefer to purchase food and beverage... ✕	<input type="radio"/> Neutral = 3	✕
4. 4. I trust that green F&B products have hi... ✕	<input type="radio"/> Agree = 4	✕
5. 5. I trust that green F&B products provide... ✕	<input type="radio"/> Strongly Agree = 5	✕
6. 6. As a consumer, I have the responsibilit... ✕	<input type="radio"/> Add column	

⋮

Green Price

 Multiple choice grid ▾

Rows	Columns
1. 1. My purchase intention is influence by t... ✕	<input type="radio"/> Strongly Disagree = 1 ✕
2. 2. I prefer to pay more for the food and b... ✕	<input type="radio"/> Disagree = 2 ✕
3. 3. I prioritize choosing green F&B product... ✕	<input type="radio"/> Neutral = 3 ✕
4. 4. I believe that eco-friendly food and bev... ✕	<input type="radio"/> Agree = 4 ✕
5. 5. The price of green F&B product is reas... ✕	<input type="radio"/> Strongly Agree = 5 ✕
6. Add row	<input type="radio"/> Add column

| Require a response in each row ⋮

⋮

Green Promotion

 Multiple choice grid ▾

Rows	Columns
1. 1. My purchase intention is influence by a... ✕	<input type="radio"/> Strongly Disagree = 1 ✕
2. 2. I have seen many food and beverage p... ✕	<input type="radio"/> Disagree = 2 ✕
3. 3.I prefer to purchase food and beverage... ✕	<input type="radio"/> Neutral = 3 ✕
4. 4. I am sceptical about the claim that the... ✕	<input type="radio"/> Agree = 4 ✕
5. 5. When making purchases, I consider a ... ✕	<input type="radio"/> Strongly Agree = 5 ✕
6. Add row	<input type="radio"/> Add column

| Require a response in each row ⋮

⋮

Green Packaging

 Multiple choice grid ▼

Rows	Columns
1. 1. My purchase intention is influence by t... ✕	<input type="radio"/> Strongly Disagree = 1 ✕
2. 2. I am attracted by the food and beverag... ✕	<input type="radio"/> Disagree = 2 ✕
3. 3.I am more willing to purchase food and... ✕	<input type="radio"/> Neutral = 3 ✕
4. 4. I believe that food and beverages with ... ✕	<input type="radio"/> Agree = 4 ✕
5. 5. Having clear information about a prod... ✕	<input type="radio"/> Strongly Agree = 5 ✕
6. Add row	<input type="radio"/> Add column

Require a response in each row
⋮

⋮

Purchase Intention

 Multiple choice grid ▼

Rows	Columns
1. 1. I prefer to purchase the food and bever... ✕	<input type="radio"/> Strongly Disagree = 1 ✕
2. 2. In the future, my purchasing decisions ... ✕	<input type="radio"/> Disagree = 2 ✕
3. 3.Over the last six months, I have had gre... ✕	<input type="radio"/> Neutral = 3 ✕
4. 4. I believe that selecting green food and ... ✕	<input type="radio"/> Agree = 4 ✕
5. 5. I am more inclined toward purchasing ... ✕	<input type="radio"/> Strongly Agree = 5 ✕
6. Add row	<input type="radio"/> Add column

Require a response in each row
⋮